STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-7, SUB 1155

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of		ORDER HOLDING IN
Application of Duke Energy Carolinas, LLC for	)	ABEYANCE DECISION ON
Approval of Residential New Construction	)	MOTION TO WITHDRAW
Program	)	PROGRAM AND REQUIRING
	)	FILING OF PROPOSED
	)	MODIFIED PROGRAM

BY THE COMMISSION: On September 21, 2017, Duke Energy Carolinas, LLC (DEC or Company) filed an application (Application) in the above-captioned docket for approval of DEC's proposed Residential New Construction Program (RNC Program). In summary, DEC requested that the Commission find that the RNC Program meets the requirements of Commission Rule R8-68 for a new energy efficiency (EE) program, and that all costs incurred by DEC and incentives associated with the RNC Program will be eligible for recovery through DEC's DSM/EE rider filed in accordance with Commission Rule R8-69. In addition, DEC stated that the RNC Program would provide incentives to residential builders in order to encourage the use of energy efficient building practices and equipment/appliances for new home construction. Further, DEC stated that eligibility would be based on the High Efficiency Residential Option (HERO) standard and upon requirements for energy efficient appliances, and that its proposal was intended to mirror Duke Energy Progress, LLC's (DEP's) Residential New Construction Program, as approved by the Commission in Docket No. E-2, Sub 1021.

On October 23, 2017, the Public Staff filed comments recommending approval of DEC's Application.

No additional filings were made in the docket for over a year and a half, and the docket was not placed on a Regular Staff Conference agenda by the Public Staff, as is typically done in such applications.

On June 7, 2019, DEC filed a motion requesting that the Commission allow DEC to withdraw the Application. DEC stated:

> Following numerous discussions with natural gas utilities subject to the Commission's jurisdiction aimed at resolving their concerns regarding potential unintended consequences of the program design, the Company has decided to withdraw the request for approval of the RNC Program at this time.

Motion to Withdraw Program, at 1.

On August 7, 2019, the Public Staff filed a letter stating that it had no objection to DEC's motion to withdraw the application for approval of the RNC Program.

The Commission received more than 50 consumer statements of position generally expressing support for the RNC Program or a similar measure, and urging rejection of DEC's motion to withdraw the application.

On August 8, 2019, the Southern Alliance for Clean Energy (SACE) filed a letter in support of the RNC Program and requested that the Commission reject DEC's motion to withdraw the application.

On August 16, 2019, the North Carolina Sustainable Energy Association (NCSEA) and the North Carolina Building Performance Association (NCBPA) filed letters similar to that of SACE. On November 19, 2019, NCBPA filed additional support for DEC's RNC Program and urged the Commission to schedule a hearing.

On November 25, 2019, the Commission issued an order scheduling a hearing for January 27, 2020 for the purpose of having DEC answer questions regarding the circumstances leading to its motion to withdraw. The Order provided notice of topics to be addressed at the hearing, as follows:

> 1. Details of the concerns of the natural gas providers regarding potential unintended consequences of the RNC Program.
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> 2. Details of the efforts made by DEC to resolve the concerns of the natural gas providers regarding potential unintended consequences of the RNC Program.
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> 3. The factors that allowed the RNC Program to be successfully implemented by DEP, without concerns of the natural gas providers in DEP's service territory regarding potential unintended consequences of the RNC Program being a barrier.

In its Order, the Commission stated that by asking DEC to address the requested topics and to respond to its questions at the hearing, it was not requesting testimony and would not allow cross-examination of persons responding to the Commission's questions.

On January 22, 2020, Piedmont Natural Gas Company, Inc. (Piedmont) and Public Service Company of North Carolina (PSNC, collectively natural gas companies or LDCs), although not parties to this proceeding, filed letters stating that they would have representatives at the hearing who would be available to answer questions from the Commission.

DEC's Motion to Withdraw came on for hearing on January 27, 2020, as scheduled. DEC presented as a panel Timothy J. Duff, General Manager of Portfolio and Analysis and Regulatory Strategy for the Customer Solutions Organization for Duke Energy, and Robert P. Evans, Senior Manager of Strategy and Collaboration for the Carolinas (collectively, DEC Panel) to answer the questions of the Commission. At the request of the Commission during the hearing, the gas companies presented on behalf of Piedmont and PSNC respectively Bruce P. Barkley, Vice President of Gas Supply and Rates, and William A. McAulay of William A. McAulay & Associates, who appeared together to answer the Commission's questions as a panel (collectively, LDC Panel). No sworn testimony was offered and no exhibits or other evidence was received into the record during the hearing.

On March 5, 2020, DEC and the Public Staff filed a Joint Proposed Order.

SUMMARY OF THE RECORD

The Application described three types of incentives that would be offered to builders and/or owners of new homes. First, for whole-house measures where the home is built to HERO standards, the RNC Program includes incentives for a high energy residential option up to $750. Second, where the home is built to HERO standards and there are modeled annual kilowatt-hour (kWh) savings confirmed by a Home Energy Rating System rater, the builder can receive up to $0.90 per kWh saved and may also offer the initial homeowner a guarantee on the total annual electric heating, ventilation and air conditioning energy consumption for up to three years for which the homeowner may receive a qualifying payment at the end of each full year of electric service for the amount of consumption that exceeds the guaranteed consumption.[1] Third, where central air conditioning with a Seasonal Energy Efficiency Ratio (SEER) of 15 or higher is installed, and/or a similarly rated air source heat pump is installed, the builder can receive equipment incentives up to $300. Application, at Section (c)(2)(iv)(b).

The DEC RNC Program is very similar to the DEP RNC program, as modified. The DEP Program was approved on October 2, 2012. *Petition of Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. for Approval of Proposed Residential New Construction Program*, Docket No. E-2, Sub 1021, Order Approving Program (DEP RNC Order). On September 20, 2017, DEP filed a letter requesting Commission approval of modifications to DEP's RNC Program.[2] According to DEP, the proposed modifications were primarily in response to building code changes and to remove the limit of one

[1] *See* https://www.duke-energy.com/_/media/pdfs/for-your-home/duke-energy-limited-guarantee-dep.pdf?la=en for Company's explanation of how the homeowner obtains an incentive payment in the DEP RNC Program.

[2] The Public Staff filed no comments in the DEP docket and the Commission did not issue any order regarding the modifications although the Company asked for a ruling that the modifications were consistent with the Commission-approved flexibility guidelines authorized by order dated January 20, 2015 in Docket No. E-2, Sub 931. DEP's Proposed Modifications to the Residential New Construction program (September 20, 2017) p. 2.

thousand participants. The changes made the proposed DEP Program essentially the same as the proposed DEC Program. Tr., 15-16 and 32.

In its comments filed on October 23, 2017, the Public Staff stated that it reviewed DEC's proposed RNC Program, including the application and the Company's responses to data requests. Based upon this review, the Public Staff expressed concern that DEC had not yet fully developed a plan for the evaluation, measurement, and verification (EM&V) of the energy savings from the Program. Further, the Public Staff noted that the Program passed three cost-effectiveness tests, but failed the Rate Payer Impact Test. The Public Staff concluded that

> [t]he Program has the potential to encourage EE, appears to be cost effective, is consistent with DEC's IRP, is in the public interest, and should be approved on a Program basis as a "new" EE program.

Public Staff Comments, at 6.

At the hearing, in response to questions from the Commission, DEC panelist Evans stated that DEC was unaware of any concerns of the natural gas companies when it filed its proposed RNC Program. In addition, he stated that the DEP RNC program has been a very successful energy efficiency program for DEP. Tr., 15-16. DEC panelist Duff stated that the Company did not believe that the RNC Program would incent fuel switching or result in unfair competition. *Id.* at 17-19, 21-24. He further stated that after the Company filed its application Piedmont and PSNC expressed their concern that the RNC Program's design would incent installation of electric over natural gas equipment. *Id.* at 9. The record does not include evidence or information that DEC and the gas companies discussed the proposed program at any time prior to its being filed.[3]

The record reflects that after the proposed RNC program was filed, both gas companies (PSNC and Piedmont) engaged in discussions with DEC regarding their concerns that the RNC Program as proposed in the Application would not merely incent energy efficiency savings or conservation but would also have the effect of driving or incenting fuel choice, i.e., homebuilders would choose to develop new homes enabled for electric heat pumps and hot water heating but not similarly enabled for the use of gas to heat the home and hot water. According to panelist Duff, based on joint conversations with both gas companies, not only Piedmont,[4] about their program design concerns and in light of their Legacy Settlement and Agreement,[5] the Company felt it appropriate to

[3] DEC's past dealings with Piedmont include working together per settlement agreement to design and implement joint energy efficiency programs that promote efficiency improvements to new home or building construction. Order Resolving Certain Issues, Docket No. E-7, Sub 831 (NCUC February 26, 2009)(approving Agreement and Joint Stipulation of Settlement filed June 26, 2008).

[4] Both DEC and Piedmont are wholly-owned subsidiaries of parent holding company Duke Energy Corporation.

[5] In addition to its afore-referenced agreement with Piedmont, DEC also entered a settlement with PSNC on June 24, 2008 in Docket No. E-7, Sub 831. Both settlement agreements included provisions

withdraw its Application. *Id.* at 19, 22, 24. Hence, the Company filed a motion to withdraw the proposed DEC program on June 27, 2019.

In response to the Commission's questions, Panelist Duff expounded on the discussions between DEC and the gas companies regarding the proposed RNC Program, and the potential Program modifications offered by DEC. He relayed that DEC and the LDCs had discussions about a number of different issues, and that DEC responded to the LDCs' concerns by suggesting several changes that could be made to the Program compared to the initial DEP Program. *Id.* at 10-19. As an example of the proffered changes, he cited DEC's suggestion for lowering the differential in the whole home incentive for a home with a gas furnace and a gas water heater versus a home that is all-electric. *Id.* at 11. He stated that DEC suggested to the LDCs that lowering the component of the per kWh savings incentive from $0.75 to $0.45 would lessen any unintended incenting of electric heating over gas heating. *Id.* Duff added that a further proposal was made in discussions with the gas companies to try and eliminate the unintended consequence of possibly incenting electric service over gas service: DEC would co-market efficiency incentives by offering both electric incentives and incentives on behalf of the gas companies through its RNC Program so builders would be aware of both sets of incentives at the same time *Id.* at 12. He acknowledged that while the whole-house incentive for building homes to the HERO standard would be available to homes using gas heating and hot water appliances, the equipment incentives would be available only for electric equipment, not for dual fuel heating appliances that could also heat with natural gas. *Id.* at 18. He further acknowledged that from the time of the proposal through the time of the hearing, the gas companies' current efficiency incentive programs address equipment and appliance replacement rather than new residential construction, *i.e.*, the gas companies presently have not designed or offered incentive programs targeting the new residential construction market which could be co-marketed. *Id.* at 13. DEC panelist Evans stated that in the DEP Program approximately 66% of the new homes that participate in the whole-house measure are gas heated homes, and that under the kWh incentive for the HERO Plus part of the Program it is about 50/50 of gas heating customers and electric heating customers. *Id.* at 52-53.

When the LDC panelists responded to the Commission's questions, they explained that they were concerned that the size and scope of the RNC Program would cause builders to turn away from selecting gas appliances for new construction due primarily to the component of the RNC Program which promised incentive payments based on electric kWh savings, which are not available with respect to appliances fueled by natural gas. *Id.* at 37. Panelists Barkley and McAulay, as well as their counsel, agreed that with the exception of past contests between their companies and DEP and DEC before the Commission in the mid-1990s and around 2008 regarding the competitive playing field, the companies have enjoyed a history of working well together advising each other when they see problems with each other's programs. *Id.* at 31, 43. Panelist Barkley expounded on the gas companies' concerns with the proposed RNC Program, indicating they see the

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designed to lessen any potential gas-electric fuel choice impacts of proposed electric efficiency programs at issue. DEC continues to adhere to the 2008 agreements with the gas companies. Tr., 14-15.

program's potential to adversely affect free choice in the new residential construction marketplace in the builders' decisions to install either electric or natural gas heating and hot water appliances. He emphasized that the gas companies have no issue with programs focused on reduction of energy consumption so long as the conservation is not achieved by paying builders to install electric appliances in order to collect incentive payments. In their view, the LDC panelists believe such incentive programs can influence builders not to install gas appliances but to choose instead to install electric appliances. Hence, they remain concerned that a program of the size and scope of that proposed by DEC could erode their share of the residential heating and hot water appliances market. They pointed out that the gas companies had not opposed new construction programs that were limited in scope, *e.g.*, DEP's initial approved incentive program had been limited to 1000 homes and did not offer incentive payments based on per kWh reductions. Panelist Barkley noted that the gas and electric companies had in fact agreed in their 2008 settlements on programs where the incentives worked the same without regard to whether the home heat source was electric or gas. *Id.* at 50. However, they could not see how a program offering builders an incentive that grows as the kWh savings grows, would not influence fuel choice to the disadvantage of natural gas market share. *Id.* at 37,38,50.

Panelist Barkley described the RNC Program incentive as "considerable" and "material" to the new home builders' ultimately moving away from installing gas appliances toward installing electric appliances. It is the growth in the magnitude of the RNC Program (HERO-Plus) incentive that the LDC panelists view as tilting the builders' fuel choice for new homes toward electric. In addition, panelist Barkley indicated he agreed with Piedmont's counsel that while DEC had tried to design a program with no intentional fuel choice impacts, the size and scope of the proposed program would likely have just such an unintentional consequence and the economic realities of the difference between operating gas and electric companies adversely affect the financial ability of gas companies to implement energy efficiency programs on the level of those offered by DEC.[6] *Id.* at 34-37.

Panelists Barkley and McAulay added that their view of the impact of the annual per kWh incentive is supported by the experiences of their field representatives who work closely with homebuilders on a daily basis. They relayed that their field representatives are of the opinion that the gas companies are losing out to electric more than usual in the new home construction market. Panelist Barkley stated homes have been built without any gas appliances in areas where the gas main is already installed by the street running directly in front of the property. He indicated this occurrence is not consistent with the usual experience for gas companies. *Id.* at 58. These reports from the field led the LDCs to be concerned that the DEP RNC Program is adversely impacting the LDCs' market share because the builders appear to be choosing to install electric appliances in situations that had more often gone to gas. *Id.* at 39-40; 53-55. Panelist McAulay stated that the field reports on the impact of the DEP program were received and investigated

[6] Pursuant to N.C.G.S. § 62-133.9, electric utilities, including DEC, recover the costs of energy efficiency incentives from ratepayers.

about the same time as DEC filed its RNC Program.[7] *Id.* at 48. While the gas companies had not previously complained about the DEP program when participation was limited and did not pay builders a per kWh savings incentive, panelist McAulay explained that about the time DEC filed its new construction program with the Commission, the gas companies were facing the decision of bringing a complaint case to the Commission. Filing of the new program afforded the gas companies the opportunity to discuss the matter with DEC rather than contemplate a legal proceeding. *Id.* at 54-55.

The LDC panelists indicated that they appreciated the efforts of DEC to mitigate their concerns, but the size of the incentives, the RNC Program in general and the information from their field representatives led them to believe that the LDCs will lose market share if the RNC Program is approved as filed. *Id.* at 34-36. They did not disagree with Evans' testimony. Panelist McAulay stated that although numbers in the range of 50% and 60% that utilize natural gas "sounds very positive, I just don't know what the outcome would have been otherwise" without the incentives that increase based on kWh savings. *Id.* at 58. Panelist Barkley stated that he did not doubt panelist Evans' numbers "but there's no way to know would it have been more gas. We certainly would like to get more than 50/50." *Id.* at 60.

DISCUSSION AND CONCLUSIONS

The Joint Proposed Order (JPO) filed by DEC and the Public Staff would grant DEC's motion to withdraw the Application. In addition, the JPO would require that within 90 days DEC will refile the RNC Program with updated data and a detailed explanation of how DEC intends to mitigate the LDCs' concerns, or file an explanation of its reasons for not refiling the Program for approval.

The Commission is persuaded that DEC filed its proposed RNC Program in good faith as a cost-effective energy efficiency program, that DEC intended to replicate the successful DEP Program, and that DEC believed that its Program would serve the public interest. Further, the Commission is persuaded that DEC did not design the Program with the intent to encourage fuel switching or to promote unfair competition. Nonetheless, the Commission recognizes the significant difference in the financial resources available to the electric utilities for funding energy efficiency programs, including recovery in annual rate riders of the incentives paid to builders, compared to the financial resources available to the LDCs for such purposes. Moreover, the Commission concludes that the concerns expressed by the LDCs' field personnel about losses in the LDCs' new residential construction market share are worthy of further consideration and analysis. Giving these and other factors due consideration, the Commission's challenge is to balance the benefits of expanding an electric energy efficiency program that is supported by statutory mandate and that has proven to be successful in DEP's service area with the need to

[7] The removal of the participant limit and the annual per kWh savings incentive for the DEP Program went into effect in December 2015. The first kWh incentive payments to builders would not occur until after 12 months or the end of 2016. In 2017, the gas companies' field representatives began reporting that builders seemed to have started favoring electric over gas. Tr., 48. DEC's proposed RNC program was filed on September 21, 2017.

prevent unfair or destructive competition between electric utilities such as DEC and natural gas LDCs. *See* N.C.G.S § 62-133.9; Commission Rule R-8-68(e)(4).

The Commission supports the implementation of a RNC Program by DEC if the Program does not result in an unfair competitive advantage for DEC over the LDCs during the phase of construction when homebuilders determine whether a new premises will be both gas and electric-ready and will rely on gas or electric heating and hot water appliances. The Commission appreciates the cooperative and substantial efforts that DEC and the LDCs have made over the years to maintain harmony and, in this instance, to resolve their differences about the design of the RNC Program. DEC and the LDCs are encouraged to continue to work together to find common ground in promoting fair and profitable competition between electric and natural gas utilities. To that end, the Commission finds good cause to hold in abeyance a decision on DEC's motion to withdraw its Application for approval of the Program until after such time as it has had to review and consider a modified RNC program as directed and described below.

In accordance with the state's policy requiring electric public utilities to adopt energy efficiency measures in furtherance of energy efficiency savings, the Commission finds good cause to direct DEC to engage the LDCs and the Public Staff in resuming discussions to attempt to reach agreement on modifications to the RNC Program that are acceptable to them and that are reasonably fuel choice neutral. In so ordering, the Commission notes that panelist Barkley stated that while at the time of the hearing on DEC's motion to withdraw the Application for the RNC Program there were no discussions between the LDCs and DEC to reach agreement on a modified RNC program, the gas companies were not opposed to such discussions. Further, within 90 days of the date of this Order, DEC should file a modified RNC Program that DEC finds appropriate for achieving energy efficiency savings and addressing the LDCs' fuel choice concerns. In addition, DEC's filing should include updated cost-effectiveness analyses and the data which formed the basis for DEC's statement that approximately 66% of participating new homes that receive the DEP Program's whole-house incentive choose gas heat, and that approximately 50% of the new homes that participate in the kWh savings incentive choose gas heat. In addition, DEC's modified program description and proposed tariff should clarify whether a builder can receive an HVAC equipment incentive and a whole-house HERO incentive for the same premise, or must choose to receive either an HVAC equipment incentive or a whole-house HERO incentive; and should clearly explain how the "up to $0.90/kWh" savings incentive applies to various types of energy savings, such as heating savings, lighting savings, or whole-house savings. Furthermore, DEC should make a good faith attempt to obtain and include in its filing data and analysis from the LDCs which shows the effect, if any, DEP Program's annual per kWh incentive may have had on past new construction fuel choice decisions.

Finally, the Commission finds good cause to allow the LDCs and Public Staff to file comments on DEC's proposed modified RNC Program within 30 days after DEC files said modified Program. It is appropriate that such comments may include data and analysis that is relevant to the issues that have been raised in this docket.

IT IS, THEREFORE, ORDERED as follows:

1. That DEC and the Public Staff shall resume discussions with the LDCs to attempt to reach agreement on modifications to the RNC Program;

2. That on or before 90 days after the date of this Order DEC shall file a modified RNC Program that DEC finds appropriate for achieving significant energy efficiency savings and addressing the LDCs' concerns. In addition, DEC's filing shall include updated cost-effectiveness analyses, and estimated participation that shows number of impacted homes as well as kWh saved. DEC should file more specific information about how the per kWh incentive for a home will be calculated, including a sample calculation for a home with and without gas, and a clear explanation of how the "up to $0.90/kWh" savings incentive applies to various types of energy savings, such as heating savings, lighting savings, or whole-house savings. Further, DEC should include the data and analysis which formed the basis for DEC's statement that approximately 66% of participating new homes that receive the DEP Program's whole-house incentive choose gas heat, and that approximately 50% of the new homes that participate in the kWh savings incentive choose gas heat; a clarification on the availability of an HVAC equipment incentive and a whole-house HERO incentive for the same premise; and attempt to obtain and include in its filing, data and analysis from the LDCs which shows the effect, if any, DEP Program's per kWh incentive may have had on past new construction fuel choice decisions; and

3. That on or before 30 days from the date that DEC files its proposed modified RNC Program the LDCs and Public Staff may file comments on the proposed modified Program.

ISSUED BY ORDER OF THE COMMISSION.

This the 23rd day of June, 2020.

NORTH CAROLINA UTILITIES COMMISSION

Janice H. Fulmore, Deputy Clerk