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*Via Electronic Filing*

Ms. Jocelyn G. Boyd, Esq.  
Chief Clerk / Administrator  
Public Service Commission of South Carolina  
101 Executive Center Drive, Suite 100  
Columbia, South Carolina 29210

**Re: Application of Duke Energy Carolinas, LLC for Approval of Pay As You Go Pilot Program, Docket No. 2015-136-E**

Dear Ms. Boyd:

On behalf of the South Carolina Coastal Conservation League (“CCL”) and Southern Alliance for Clean Energy (“SACE”), I write to express support for the Residential Pay As You Go Pilot Program (“Pilot”) proposed by Duke Energy Carolinas (“DEC” or “the Company”).

CCL and SACE generally support approval of the Pilot based on materials filed by DEC and review of the Office of Regulatory Staff (“ORS”) comments on the proposed Pilot. This letter offers comment on the following: (1) support for the Pilot; (2) the potential for the Pilot to yield energy savings; and (3) recommendations to enhance the proposed Pilot to improve customer satisfaction and increase potential energy savings.

**Support for the Residential Pay As You Go Pilot Program**

Overall, CCL and SACE support the proposed Pilot and the requested waivers of certain regulations of the Public Service Commission of South Carolina (“Commission”). CCL and SACE appreciate the initiative taken by DEC in proposing a residential prepay pilot program. In addition, CCL and SACE commend DEC for considering lessons learned from the prepay program that was offered to customers of DEC affiliate Duke Energy Progress (“DEP”) in the past, and concur that the Pilot is likely to achieve superior cost-effectiveness compared to the now-defunct DEP program—in part because the Pilot is designed for customer accounts where advanced metering technology has already been deployed.

**Potential for Energy Savings**

While DEC has chosen not to propose the Pilot as an energy efficiency (“EE”) program, the program has the potential to produce significant energy savings. DEC has recognized this potential, and states in its Application that the Company will evaluate whether it is

able to transform a Pilot into a suitable EE program in the future. While CCL and SACE do not oppose the launch of the Pilot outside of DEC's EE portfolio, it is important to consider the potential energy savings associated with residential prepay programs. Research confirms that residential prepay programs can generate significant energy savings and high levels of customer satisfaction. For example, the Salt River Project's 2014 Energy Efficiency Report states that participants in its M-Power prepay program have reduced their energy usage by an average of 12%, and 92% of participants reported being "satisfied" or "very satisfied" with the program.<sup>1</sup> In addition, an independent report released in January 2014 by the Distributed Energy Financial Group ("DEFG") confirmed that prepay programs across the country yield average participant energy savings from 10 – 15%.<sup>2</sup>

Recent research also shows that residential prepay programs attract high levels of customer interest. In a national survey conducted by DEFG's Prepay Energy Working Group in late 2014, 17% of Americans reported being "extremely interested" or "very interested" in a voluntary prepay option.<sup>3</sup> If the Pilot attracts this level of interest and also results in average participant savings of 10 - 15%, the Pilot could yield residential energy savings as high as 1.7 – 2.6% of sales, which would significantly increase the overall savings achieved by DEC's current portfolio of EE programs.

CCL and SACE recommend that the Commission consider the benefits of potential energy savings in evaluating DEC's Application. Further, to assess the benefits of the Pilot, CCL and SACE recommend that the Commission direct DEC to track and report energy savings achieved by the Pilot in future Evaluation, Measurement and Verification ("EM&V") reports. This will assist DEC, the Commission and stakeholders in considering whether DEC's Pay As You Go model should be transformed into an EE program in the future.

### **Recommendations to Enhance the Proposed Pilot**

While CCL and SACE generally support Commission approval of the Pilot as proposed by DEC, we offer two recommendations for enhancing the Pilot to improve customer satisfaction and increase potential energy savings: (1) provide near-real-time energy usage data to participating customers; and (2) allow customers receiving service through time-of-use rate schedules to participate in the Pilot.

A critical element in maximizing cost-effective energy savings through a prepay program is providing timely energy usage data. Research has shown that providing customers with timely access to data on their energy usage is essential to capturing the energy-saving

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<sup>1</sup> Salt River Project, 2014 Energy Efficiency Report, available at <https://www.srpnet.com/about/financial/2014AnnualReport/pdfx/2014EEReport101314.pdf>.

<sup>2</sup> Zarnikau, J. et al., "How Do Prepay Electricity Programs Impact Consumer Behavior?" (January 2014), available at <http://defgllc.com/publication/how-do-prepay-electricity-programs-impact-consumer-behavior/>.

<sup>3</sup> DEFG, "EcoPinion No. 21 – Give the People What They Want: Prepay Energy's Convenience and Control" (March 31, 2015), available at <http://defgllc.com/publication/give-the-people-what-they-want-prepay-energys-convenience-and-control/>.

benefits of smart meters.<sup>4</sup> If customers are able see the near-real-time impacts on energy usage of adjusting thermostat settings or turning specific devices on or off, they are far better equipped to adjust their behavior to reduce their energy usage. While DEC proposes to provide usage information to participating customers on a daily and monthly basis, the Company does not propose to provide customers with near-real-time feedback on their energy usage.

In order to enable Pilot participants to access near-real-time data on their energy usage, CCL and SACE recommend that DEC provide access to electricity usage data on 15-minute intervals through both a free smartphone application and DEC's website. Offering a free smartphone application and Company website portal would provide timely energy usage data to all customers with smart meters. One such smartphone application is Siemens' Energy Engage Mobile, which is being added to an existing program offered by the City of Fort Collins, Colorado that currently allows customers to monitor energy usage through the utility's website.<sup>5</sup> The Energy Engage Mobile application provides Fort Collins customers with timely electricity usage data in 15-minute intervals. Similar applications are currently offered by other electric utilities, including Pacific Gas & Electric, San Diego Gas & Electric, and Reliant.

Another important element in maximizing cost-effective energy savings and demand reduction through a prepay program is incentivizing customers to use less energy during times of peak demand when the cost of providing electricity is higher. DEC proposes that customers enrolled in a time-of-use ("TOU") rate schedule would not be eligible for participation in the Pilot, but does not explain the basis for this proposal. However, at least one utility has integrated TOU rates into a highly successful prepay program. Oklahoma Electric Cooperative's ("OEC's") residential prepay program incorporates the same summer on-peak and off-peak pricing, and two-tiered winter pricing, that apply to all residential customers.<sup>6</sup> OEC's prepay program has been in place since 2006, and its participants have achieved average energy savings of 11% of sales.<sup>7</sup> In addition, OEC reported in 2011 that more than 85% of participants were satisfied with the prepay program, and 88% would recommend the program to others.<sup>8</sup>

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<sup>4</sup> Katrina Jessoe and David Rapson, "Knowledge Is (Less) Power: Experimental Evidence from Residential Energy Use," available at <https://ei.haas.berkeley.edu/research/papers/WP241.pdf>.

<sup>5</sup> Siemens, "Energy Engage Mobile: direct utility customer engagement via smartphones," available at <https://blogs.siemens.com/smartgridwatch/stories/2343/>.

<sup>6</sup> Chris Villarreal and Marzia Zafar, California Public Utilities Commission, "A Review of Pre-Pay Programs for Electricity Service," (July 2012), available at <http://www.cpuc.ca.gov/NR/rdonlyres/152ED1D4-DD85-4D6F-984B-B84847933A18/0/Prepaypolicypaper0712.pdf>.

<sup>7</sup> Zarnikau, J. et al., "How Do Prepay Electricity Programs Impact Consumer Behavior?" (January 2014), available at <http://defgllc.com/publication/how-do-prepay-electricity-programs-impact-consumer-behavior/>.

<sup>8</sup> Oklahoma Electric Cooperative, "Pre-Paid: The Tangible Benefit of Smart Grid for Consumers," presentation to the Oklahoma Corporation Commission (May 2011), available at <http://www.occeweb.com/pu/Prepayment%20Project/OEC%20prepay%20presentation%205.23.11.pdf>.

CCL and SACE recommend that DEC allow optional TOU pricing for a sample of participants in the Pilot, and report to the Commission on the resulting savings and customer satisfaction to inform future decisions regarding the potential implementation of a full-scale prepay program.

**Conclusion and Recommendations**

In conclusion, CCL and SACE generally support DEC's proposal to implement a residential prepay program, and commend the Company for taking the initiative to propose the Pilot. Although DEC has chosen not to propose the Pilot as an EE program at this time, CCL and SACE recommend that the Commission consider the value of potential energy savings in its evaluation of the Application, and direct DEC to track and report energy savings achieved by the Pilot in future EM&V reports to inform future decisions regarding the potential implementation of a full-scale prepay program. Finally, CCL and SACE recommend that DEC enhance the proposed Pilot by (1) providing Pilot participants access to electricity usage data on 15-minute intervals through both a free smartphone application and DEC's website; and (2) allowing optional TOU pricing for a sample of participants in the Pilot, and reporting to the Commission on the associated savings and customer satisfaction of TOU customers in future EM&V reporting on the Pilot.

Thank you for the opportunity to comment on the proposed Pilot. Please do not hesitate to contact me if you have questions or need additional information.

Sincerely,

s/J. Blanding Holman IV

JBH

cc: Counsel of record (via electronic mail)