



**NORTH CAROLINA
PUBLIC STAFF
UTILITIES COMMISSION**

January 29, 2016

Ms. Gail Mount, Chief Clerk
North Carolina Utilities Commission
Mail Service Center 4325
Raleigh, North Carolina 27699-4300

Re: Docket No. E-100, Sub 126 – Smart Grid Technology Plans

Dear Ms. Mount:

Pursuant to the Commission's November 5, 2015 *Order Approving Smart Grid Technology Plans, Declining To Schedule A Hearing, And Requesting Comments on Rule Revisions* (2015 Smart Grid Order) in Docket No. E-100, Sub 141, and the Commission's January 6, 2016 Order Granting Extension of Time to File Reply Comments in Docket No. E-100, Sub 126, Duke Energy Carolinas, LLC, Duke Energy Progress, LLC, the North Carolina Sustainable Energy Association (NCSEA), the Public Staff - North Carolina Utilities Commission, and Virginia Electric & Power Company d/b/a Dominion North Carolina Power (collectively, the "Joint Parties") respectfully submit for filing in lieu of reply comments the attached joint proposed revisions to Commission Rules R8-60(i)(10) and R8-60.1 pertaining to the utilities' biennial Smart Grid Technology Plans (SGTPs) and the SGTP updates filed in alternate years.

The proposed rule revisions reflect a consensus effort on the part of the Joint Parties to enhance the information provided in the SGTPs through increasing both the level of detail and the scope of the information. Appendix A contains a redlined version of the Joint Parties' proposed revisions to Rules R8-60(i)(10) and R8-60.1, and Appendix B contains a clean version of the rules with the changes incorporated.

The Joint Parties note that in its 2015 Smart Grid Order, the Commission stated:

Executive Director 733-2435	Communications 733-2810	Economic Research 733-2902	Legal 733-6110	Transportation 733-7766
Accounting 733-4279	Consumer Services 733-9277	Electric 733-2267	Natural Gas 733-4326	Water 733-5610

...[W]hile the Commission will not require the utilities to supplement their 2014 filings as NCSEA/EDF proposed, the Commission will nonetheless require them to update their responses to the questions posed in the Commission's August 23, 2013 Order and include those responses in their 2016 SGTPs. In addition, they are to address in their 2016 SGTPs whether the Commission's rules should be updated at that time in order to address customer and third party access to usage data. Finally, if any party believes that rule changes are needed, they should file their proposed rule changes in the 2016 SGTP docket. (2015 Smart Grid Order at p. 19)

In their initial comments in this docket, NCSEA and the Public Staff both proposed revisions to R8-60.1(c) to require the utilities to include information on the availability of customer usage information to customers as well as the process by which customers can authorize release of that information to third parties, consistent with the Commission's August 23, 2013 Order in Docket No. E-100, Sub 137. In the development of a joint proposal for rule changes, however, the Joint Parties agreed that further discussions on the question of customer and third party access to usage data would be beneficial prior to recommending particular provisions for codification into the rule. The Public Staff and NCSEA therefore agreed to remove the provisions from their proposed rule revisions, with the understanding that the Joint Parties would commit to participate in a process to further discuss and evaluate this issue, including an evaluation of how other states have addressed customer and third party access to usage data, and to report back to the Commission on any further rule changes needed, if any, in the 2016 SGTP docket. The Public Staff has agreed to file a report with the Commission as to the status of the process with its filing regarding the 2016 SGTP.

By copy of this letter, we are forwarding copies to all parties of record. Please do not hesitate to contact me if you have any questions.

Sincerely,

/s/ Tim R. Dodge
Staff Attorney
tim.dodge@psncuc.nc.gov

Attachments

Appendix A:

Redlined version of Commission Rule R8-60(i)(10) and R8-60.1 indicating the changes jointly proposed by Virginia Electric and Power Company, d/b/a Dominion North Carolina Power; Duke Energy Carolinas, LLC; Duke Energy Progress, LLC; the North Carolina Sustainable Energy Association; and the Public Staff – North Carolina Utilities Commission

(10) Smart Grid Impacts. – Each utility shall provide information regarding the impacts of its smart grid deployment plan on the overall IRP.

(i) For purposes of this requirement, the term “smart” in smart grid ~~shall be understood to mean, but is not limited to,~~ a system having the ability to receive, process, and send information and/or data - essentially establishing a two-way communication protocol.

(ii) For purposes of this requirement, smart grid technologies that are implemented in a smart grid deployment plan may include those that:

a. ~~(1)~~ utilize digital information and controls technology to improve the reliability, security and efficiency of an electric utility’s distribution or transmission system;

b. ~~(2)~~ optimize grid operations dynamically;

c. ~~(3)~~ improve the operational integration of distributed and/or intermittent generation sources, energy storage, demand response, demand-side resources, and energy efficiency;

d. ~~(4)~~ provide utility operators with data concerning the operations and status of the distribution and/or transmission system, as well as automating some operations; ~~and/or~~

e. provide customers with usage or retail energy pricing information in order to allow them to interpret and adjust their energy consumption.

~~/or (5) provide customers with usage information.~~

~~(+)(iii)~~ The information provided shall include:

a. A description of the technology installed and for which installation is scheduled to begin in the next five years and the resulting and projected net impacts from installation of that technology, including, if applicable, the potential demand (MW) and energy (MWh) savings resulting from the described technology.

b. A comparison to "gross" MW and MWh without installation of the described smart grid technology.

c. A description of MW and MWh impacts on a system, North Carolina retail jurisdictional, and North Carolina retail customer class basis, including proposed plans for measurement and verification of customer impacts or actual measurement and verification of customer impacts.

Rule R8-60.1 SMART GRID TECHNOLOGY PLANS AND FILINGS.

(a) Purpose. – The purpose of this rule is to establish guidelines for the reporting of information regarding a utility's smart grid technology plan in addition to that required in Rule R8-60(i)(10). The information included should describe the conceptual structure and overall organization and impact of the utility's smart grid plans, and provide details about the smart grid technologies being evaluated, designed, or implemented.

(b) Smart Grid Technology Plan. – By October 1, 2014, and every two years thereafter, each utility subject to Commission Rule R8-60(i)(10) shall file with the Commission its biennial smart grid technology plan. ~~Significant amendments or revisions to a smart grid technology plan shall be reported to the Commission in~~ By October 1 of each year in which the biennial smart grid technology plan is not required to be filed, each utility shall file with the Commission a smart grid technology update report that includes significant amendments or revisions to its biennial smart grid technology plan.

(c) Biennial Smart Grid Technology Plan Contents. – For purposes of this Rule, smart grid technologies are as set forth in Rule R8-60(i)(10) and shall also include those that provide real-time, automated, interactive technologies that enable the optimization and/or operation of consumer devices and appliances, including metering of customer usage and providing customers with ~~control~~ options to control their energy consumption.

The plan shall include all of the following:

(1) A summary of the utility's strategy for evaluating and developing smart grid technologies.

(2) A description of how the proposed smart grid technology plan will improve reliability and security of the grid.

(3) For all smart grid technologies currently being deployed or scheduled for implementation within the next five years:

(i) A description of ~~the technology for which installation is scheduled to begin~~ technologies in the next five years, including the goals and objectives of ~~theat technologiesy~~, options for ensuring interoperability of the ~~technologiesy~~ with ~~different technologies and~~ the legacy system, and the life of the ~~technologiesy~~.

~~(1) A smart grid maturity model "roadmap," if applicable, or roadmap from a comparable industry accepted resource suitable for the development of smart grid technology.~~

~~(iii) Approximate timing and amount of capital expenditures.~~

~~(iv) Cost benefit analyses for installations that are planned to begin within the next five years, including an explanation of the methodology and inputs used to perform the cost benefit analyses.~~

(ii) The status and timeframe for completion.

~~(v)~~(iii) A description of any existing equipment, ~~if any,~~ to be rendered obsolete by the new technology, its anticipated book

value at time of retirement, alternative uses of the existing equipment, and the expected salvage value of the existing equipment.

~~(vi) Status of pilot projects and projects, including a description of whether and to what extent these projects are or will be funded by government grants.~~

~~(vii)~~(iv) A description, ~~if applicable~~, of how the utility intends the technology to transfer information between it and the customer while maintaining the security of that information.

~~(viii)~~(v) A description, ~~if applicable~~, of how third parties will implement or utilize any portion of the technology, including transfers of customer-specific information from the utility to third parties, and how customers will authorize that information for release by the utility to third parties.

~~A description of how the proposed smart grid technology plan will improve reliability and security of the grid.~~

(vi) Approximate timing and amount of capital expenditures, including those already incurred.

(vii) Analyses relied upon by the utility for installations, including an explanation of the methodology and inputs used to perform the analyses.

(4) For all smart grid technologies actively under consideration for implementation within the next five years, the smart grid technology

plan shall include a description of the technologies, including the goal and objective of the technologies, as well as a descriptive summary of any completed analysis used by the utility in assessing the smart grid technology.

(5) For each pilot project or initiative currently underway or planned within the next two years to evaluate smart grid technologies:

(i) A description, including its objective and an explanation of how it will improve grid performance or provide improved or additional utility goods and services.

(ii) The status and timeframe for completion.

(iii) The total cost incurred to date by the utility to conduct and investigate each pilot project or initiative, including whether and to what extent these projects are or will be funded by government grants.

(iv) A summary of the results of any pilot project or initiative that is completed if the final results of the pilot project or initiative have not yet been included in previous plans.

(v) An explanation of how the results of the pilot project or initiative will be used by the utility if the explanation has not yet been included in previous plans.

(6) A description of each project or initiative described in a previous plan that is no longer under consideration by the utility, and the basis for the decision to end consideration of each project or initiative.

(7) For automated metering infrastructure (AMI), in addition to the information required in subsections (3) or (4) of this section, as appropriate, the utility shall also provide:

(i) A table indicating the extent to which AMI meters have been installed in the utility's service territory and specifically in North Carolina, the North Carolina jurisdictional customer classes and/or tariffs of customers with AMI, and the predicted lifespans of these installations. This table should indicate the number of AMI meters that have been installed both cumulatively and since the filing of the last smart grid technology plan.

(ii) The number of meters in North Carolina that use traditional metering technology and/or automated meter reading (AMR) technology, and the predicted lifespans for these installations.

(iii) Any adjustment made by the utility to its capital accounting due to AMI, including the dollar amount of write-downs of its meter inventories.

(iv) A discussion of what AMI services or functions are currently being utilized, as well as any plans for implementing other AMI services or functions within the next two years.

(d) Review of Plans and Update Reports.

(1) Within 30 days after the filing of each utility's biennial smart grid technology plan, the Public Staff or any other intervenor may file

comments on any or all of the plans. Within 14 days after the filing of initial comments, the parties may file reply comments addressing any substantive or procedural issues raised by any other party. A hearing to address issues raised by the Public Staff or any other intervenors may be scheduled at the discretion of the Commission. The scope of such hearing shall be limited to such issues as identified by the Commission.

(2) Within 30 days after the filing of each utility's smart grid technology update report, the Public Staff shall report to the Commission whether each utility's update report meets the requirements of this rule. Intervenors may request leave from the Commission to file comments. Comments will be received or expert witness hearings held on the update reports only if the Commission deems it necessary. The scope of any comments or expert witness hearing shall be limited to issues identified by the Commission.

(3) Any approval of a smart grid technology plan shall not constitute an approval of the recovery of costs or of any specific technology or program associated with the plan.

Appendix B:

Clean version of Commission Rule R8-60(i)(10) and R8-60.1 accepting the changes jointly proposed by Virginia Electric and Power Company, d/b/a Dominion North Carolina Power; Duke Energy Carolinas, LLC; Duke Energy Progress, LLC; the North Carolina Sustainable Energy Association; and the Public Staff – North Carolina Utilities Commission

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 - b. optimize grid operations dynamically;
 - c. improve the operational integration of distributed and/or intermittent generation sources, energy storage, demand response, demand-side resources, and energy efficiency;

- d. provide utility operators with data concerning the operations and status of the distribution and/or transmission system, as well as automating some operations; or
- e. provide customers with usage or retail energy pricing information in order to allow them to interpret and adjust their energy consumption.

(iii) The information provided shall include:

- a. A description of the technology installed and for which installation is scheduled to begin in the next five years and the resulting and projected net impacts from installation of that technology, including, if applicable, the potential demand (MW) and energy (MWh) savings resulting from the described technology.
- b. A comparison to "gross" MW and MWh without installation of the described smart grid technology.
- c. A description of MW and MWh impacts on a system, North Carolina retail jurisdictional, and North Carolina retail customer class basis, including proposed plans for measurement and verification of customer impacts or actual measurement and verification of customer impacts.

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(c) Biennial Smart Grid Technology Plan Contents. – For purposes of this Rule, smart grid technologies are as set forth in Rule R8-60(i)(10) and shall also include those that provide real-time, automated, interactive technologies that enable the optimization and/or operation of consumer devices and appliances, including metering of customer usage and providing customers with options to control their energy consumption.

The plan shall include all of the following:

- (1) A summary of the utility's strategy for evaluating and developing smart grid technologies.

- (2) A description of how the proposed smart grid technology plan will improve reliability and security of the grid.
- (3) For all smart grid technologies currently being deployed or scheduled for implementation within the next five years:
 - (i) A description of technologies, including the goals and objectives of the technologies, options for ensuring interoperability of the technologies with the legacy system, and the life of the technologies.
 - (ii) The status and timeframe for completion.
 - (iii) A description of any existing equipment to be rendered obsolete by the new technology, its anticipated book value at time of retirement, alternative uses of the existing equipment, and the expected salvage value of the existing equipment.
 - (iv) A description of how the utility intends the technology to transfer information between it and the customer while maintaining the security of that information.
 - (v) A description of how third parties will implement or utilize any portion of the technology, including transfers of customer-specific information from the utility to third parties, and how customers will authorize that information for release by the utility to third parties.

- (vi) Approximate timing and amount of capital expenditures, including those already incurred.
 - (vii) Analyses relied upon by the utility for installations, including an explanation of the methodology and inputs used to perform the analyses.
- (4) For all smart grid technologies actively under consideration for implementation within the next five years, the smart grid technology plan shall include a description of the technologies, including the goal and objective of the technologies, as well as a descriptive summary of any completed analysis used by the utility in assessing the smart grid technology.
- (5) For each pilot project or initiative currently underway or planned within the next two years to evaluate smart grid technologies:
 - (i) A description, including its objective and an explanation of how it will improve grid performance or provide improved or additional utility goods and services.
 - (ii) The status and timeframe for completion.
 - (iii) The total cost incurred to date by the utility to conduct and investigate each pilot project or initiative, including whether and to what extent these projects are or will be funded by government grants.

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 - (v) An explanation of how the results of the pilot project or initiative will be used by the utility if the explanation has not yet been included in previous plans.
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