

**BEFORE THE NORTH CAROLINA UTILITIES COMMISSION**  
**DOCKET NO. E-100, SUB 137**

**In the Matter of: )  
2012 Biennial Integrated Resource Plans )  
and Related 2012 REPS Compliance )  
Plans )**

## COMMENTS

**FILED**

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Clerk's Office  
N.C. Utilities Commission

## NCSEA'S COMMENTS

## INTRODUCTION

Substantial changes are taking place in connection with the provision of electricity in North Carolina. As Duke Energy Corporation (“Duke”) states on its website,

[t]he energy industry is poised for a dramatic change. In the face of expanding customer expectations, increasing environmental regulation, a slumping economy and continued growth, the traditional approach of building new power plants to meet energy demand can no longer be the only option. We must find ways to improve our service and meet our customers' energy needs in a smart, lower-carbon way. Renewable generation and energy efficiency must, and will, play a larger role. And consumers want more information and control, too; they want reliable and affordable energy that's clean, and this requires a unique balancing act. By deploying digital energy technologies and modernizing our power grid, we can bring Duke Energy into the 21st century, empower you to make wiser energy decisions, and help create a cleaner, lower-carbon and more energy-efficient world.<sup>1</sup>

The North Carolina Sustainable Energy Association (“NCSEA”) submits these comments to amplify two aspects of Duke’s own statement. First, NCSEA’s comments recognize the utilities’ projections in their 2012 IRPs – projections that generally reflect the increasingly apparent fact that “[r]enewable energy and energy efficiency must, and

<sup>1</sup> Duke Energy Corporation, *Frequently Asked Questions: Why is Duke Energy building a “smart grid?”* (accessed at <http://www.duke-energy.com/about-us/smart-grid-faq.asp> on 9 January 2013).

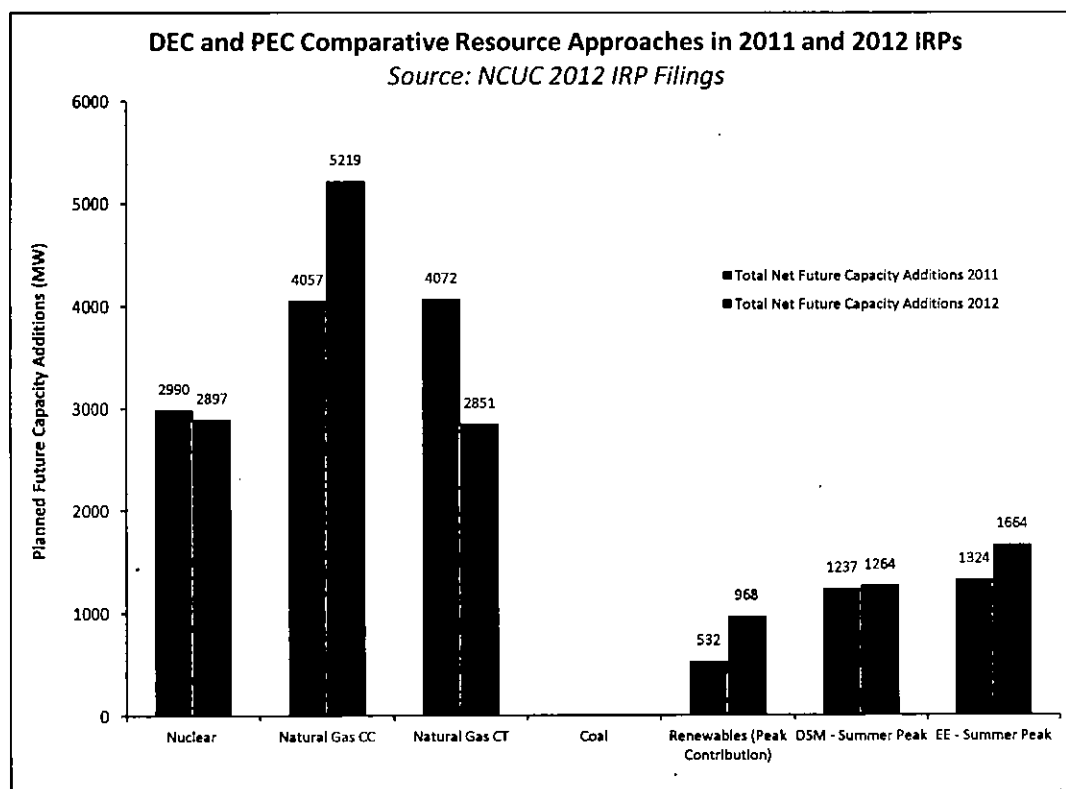
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will, play a larger role.” Second, NCSEA’s comments emphasize that “consumers [who] want more information and control” so as to be “empower[ed] . . . to make wiser energy decisions” need this Commission to make their ability to access their energy usage information easier. The Commission can take a big step in this direction by committing in this proceeding to opening a separate rulemaking docket focused on creating and/or modernizing the rules for accessing customer information.

**PART 1:**  
**THE LARGER ROLE OF RENEWABLE GENERATION**  
**AND ENERGY EFFICIENCY**

Figure 1, *infra*, uses DEC’s and PEC’s 2011 and 2012 IRP filings to compare DEC’s/PEC’s combined planned capacity additions, by resource, as set forth in their 2011 IRPs to their planned capacity additions as set forth in their 2012 IRPs. While the 2011 and 2012 combined plans are very similar in some respects, they are markedly different in other respects – particularly as they pertain to renewables and DSM/EE.

**Figure 1<sup>2</sup>**



With regard to consistency, in both 2011 and 2012, DEC's/PEC's largest planned capacity additions were for plants fueled by nuclear and natural gas (both combined cycle (CC) and combustion turbine "peakers" (CT)). Though there is a clearly discernible shift in planning away from additional CT capacity and to additional CC capacity, little else changed between 2011 and 2012 as far as conventionally fueled plants are concerned. On the other hand, DEC's/PEC's planned capacity additions attributable to renewable resources and demand-side management (DSM)/energy efficiency (EE) show a marked

<sup>2</sup> *Duke Energy Carolinas, LLC's 2012 Integrated Resource Plan* ("DEC 2012 IRP"), p. 112, Commission Docket No. E-100, Sub 137 (4 September 2012); *Progress Energy Carolinas, Inc.'s 2012 Integrated Resource Plan* ("PEC 2012 IRP"), pp. 25-27, Commission Docket No. E-100, Sub 137 (4 September 2012); *Duke Energy Carolinas, LLC's 2011 Integrated Resource Plan* ("DEC 2011 IRP"), pp. 106-107, Commission Docket No. E-100, Sub 128 (1 September 2011); *Progress Energy Carolinas, Inc.'s 2011 Integrated Resource Plan* ("PEC 2011 IRP"), pp. 24-27, Commission Docket No. E-100, Sub 128 (1 September 2011).

year-on-year increase. Planned renewables-based *peak* capacity increased 81% from a combined 532 MW in the 2011 IRPs to 968 MW in the 2012 IRPs as shown in the following two tables:

<b><i>DEC Comparison of 2011 and 2012 RE Plans for 2021/2032<sup>3</sup></i></b>		
	All Renewables	
	2011 IRP	2012 IRP
2021 Peak Contribution	372	<b>426</b>
2032 Peak Contribution	493	<b>758</b>

<b><i>PEC Comparison of 2011 and 2012 RE Plans for 2021/2032<sup>4</sup></i></b>		
	All Renewables	
	2011 IRP	2012 IRP
2021 Peak Contribution	189	<b>221</b>
2032 Peak Contribution	39	<b>210<sup>5</sup></b>

At the same time, planned DSM/EE capacity increased 14% from a combined 2561 MW in the 2011 IRPs to 2928 MW in the 2012 IRPs.

<sup>3</sup>DEC 2012 IRP at p. 99; DEC 2011 IRP at p. 93.

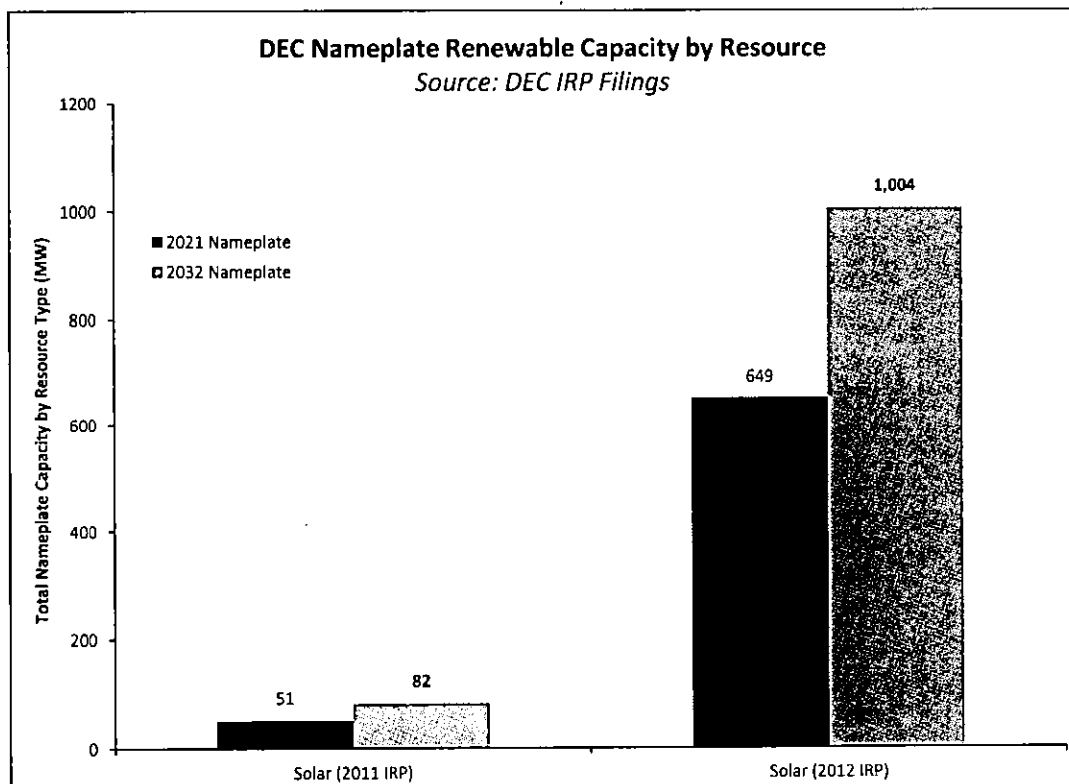
<sup>4</sup>PEC 2012 IRP at p. 9; PEC 2011 IRP at p. 8.

<sup>5</sup> From 2011 to 2012, PEC's overall commitment to renewables-based capacity additions increased, but PEC still appears to be planning to reduce its renewables-based capacity in the long-term as evidenced by the 2012 IRP's projected drop in peak contribution between 2021 and 2032 from 221 MW to 210 MW. This drop is, however, much less precipitous than the drop projected in PEC's 2011 IRP – from 189 MW in 2021 to 39 MW in 2032.

A. DEC's/PEC's 2012 IRPs EVIDENCE A LARGER ROLE FOR RENEWABLES, PARTICULARLY SOLAR, AS MEASURED BY NAMEPLATE CAPACITY

At the same time that DEC and PEC revised upward their planned renewables-based *peak* capacity additions, the two utilities also revised upward their planned 10- and 20-year out renewables-based *nameplate* capacity additions. The increase in planned renewables-based nameplate capacity is overwhelmingly attributable to solar. By way of example, as illustrated in Figure 2 *infra*, DEC's planned 10- and 20-year out solar nameplate capacities each jumped by more than 1,000% between 2011 and 2012. The 10-year outlook jumped from 51 MW to 649 MW – a 1,173% increase – while the 20-year outlook jumped from 82 MW to 1,004 MW – a 1,124% increase.

**Figure 2<sup>6</sup>**



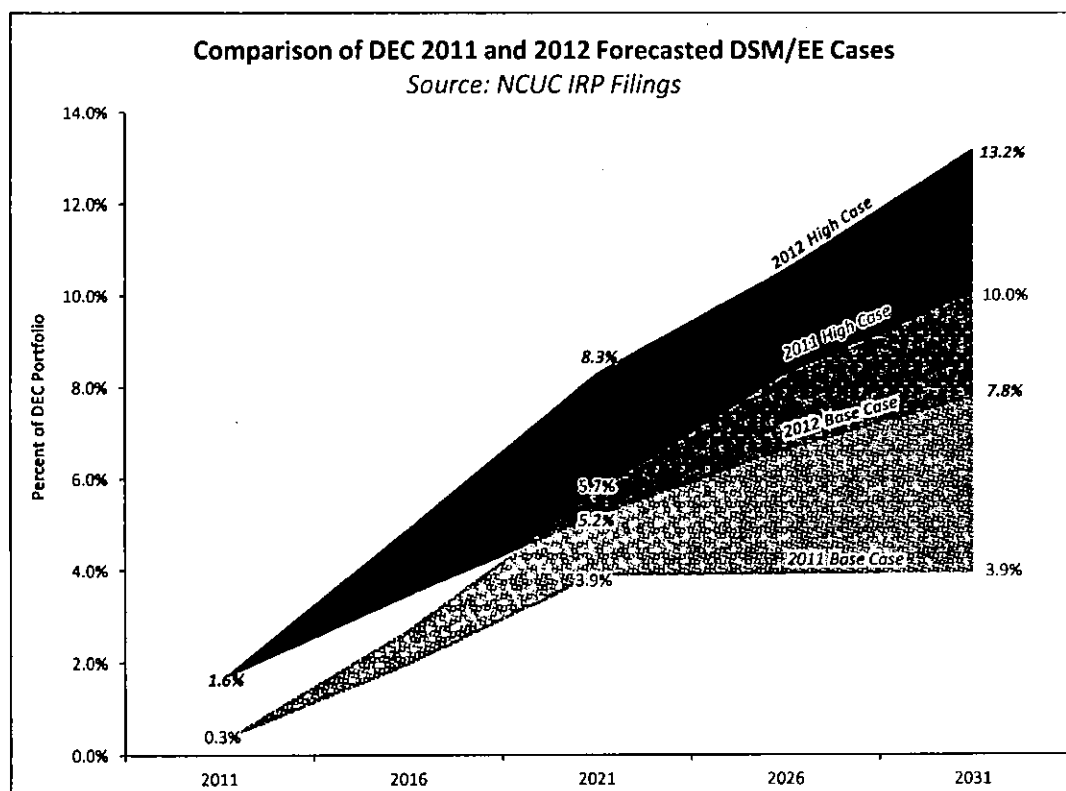
<sup>6</sup> DEC 2012 IRP at p. 99; DEC 2011 IRP at p. 93.

As far as renewables-based generation is concerned, a potentially troubling development with regard to DEC's 2012 IRP is DEC's new assumption that South Carolina will pass a REPS law by 2015 or 2016 that is similar to North Carolina's REPS law, but without the swine and poultry set-asides. It is unclear exactly what impact this speculative assumption had on DEC's plan, but it almost certainly had a significant impact on its renewables-based outlook. In future IRPs, DEC should be required to make express the impact this assumption had on its renewables-based planning.

B. DEC's/PEC's 2012 IRPs EVIDENCE A LARGER ROLE FOR DSM/EE

The increase from 2011 to 2012 in DEC's/PEC's planned DSM/EE capacity, as illustrated in Figure 1 *supra*, appears to trace back, at least in part, to DEC's and PEC's revised estimates of achievable DSM/EE potential. In response to a Commission order, both DEC and PEC undertook new energy efficiency potential studies, the results of which were incorporated into their 2012 IRPs. Based on their re-evaluations of achievable potential within their service territories, both utilities increased their long-term commitments to DSM/EE. Figures 3 and 4, *infra*, illustrate that between 2011 and 2012 DEC and PEC respectively both increased their "base" case projections regarding the expected role DSM/EE will play in meeting energy needs over the next 15 to 20 years.

**Figure 3<sup>7</sup>**



If one assumes that the future impacts of DSM/EE will fall somewhere within the “cone” bounded by the two lines corresponding to DEC’s “base” and “high” case projections, then Figure 3 illustrates how the purple “cone” of DSM/EE potential projected in DEC’s 2012 IRP represents a significantly increased opportunity for DSM/EE as compared to the green “cone” of DSM/EE potential projected just one year ago in DEC’s 2011 IRP.

DEC explained that the higher 2012 “base” case projection came as a result of improved actual participation levels. DEC 2012 IRP at pp. 38-39. DEC also indicated that the 2012 “high” case is achievable if, consistent with a merger settlement it entered

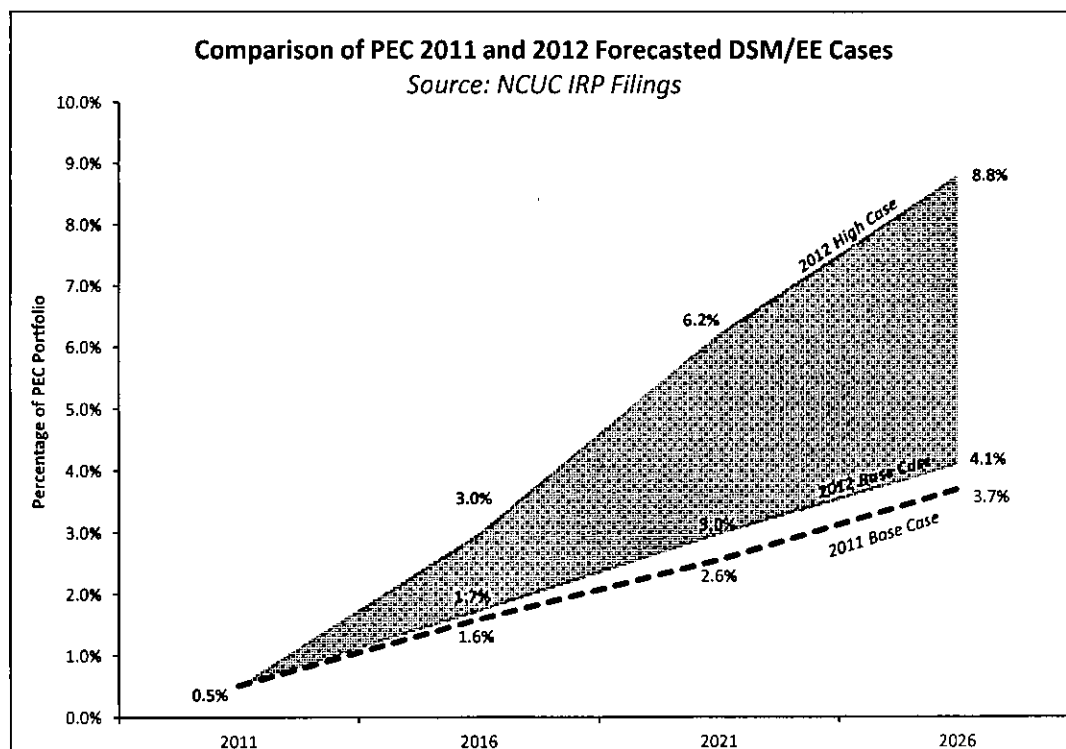
<sup>7</sup> DEC 2012 IRP at pp. 25, 39-40; DEC 2011 IRP at pp. 21, 34-35. Both “high” and “base” case numbers were compared to a baseline load projection unimpacted by any DSM/EE programs. This baseline was calculated by adding the total DSM/EE impacts to total sales without DSM/EE impacts.

into with Southern Environmental Law Center (“SELC”) and Southern Alliance for Clean Energy (“SACE”), DSM/EE program participation rates increase to higher levels. *Id.* at p. 38. DEC’s 2012 projections are generally promising and represent a laudable improvement vis-à-vis DEC’s 2011 projections.

As with DEC’s projected renewables-based generation, a potentially troubling development with regard to DEC’s 2012 IRP is DEC’s new assumption that South Carolina will pass a REPS law by 2015 or 2016 that is similar to North Carolina’s REPS law including the potential for use of EECs for compliance. It is unclear exactly what impact this speculative assumption had on DEC’s DSM/EE projections, but it almost certainly had a significant impact on its outlook. In future IRPs, DEC should be required to make express the impact this assumption had on its DSM/EE planning.



**Figure 4<sup>8</sup>**



As Figure 4 illustrates, PEC’s 2012 DSM/EE “base” case projection did not increase as dramatically as DEC’s when compared to PEC’s 2011 “base” case projection. Nonetheless, PEC’s general assessment of its DSM/EE potential appears to mirror that of DEC. Specifically, PEC explained that, as a result of the merger settlement with SELC and SACE, higher levels of participation could permit PEC to pursue a more aggressive suite of DSM/EE programs in its “base” case and PEC could also envision a proportionately more aggressive “high” case projection. PEC 2012 IRP at p. E-12. Like

<sup>8</sup> The “base” case data depicted in the graph can be found in the PEC 2012 IRP at p. 9 and in the PEC 2011 IRP at p. 8. PEC’s 2012 “high” case projections were obtained during discovery. PEC’s 2011 “high” case numbers were not obtained. Both “high” and “base” case numbers were compared to a baseline load projection unimpacted by any DSM/EE programs. This baseline was calculated by adding the total DSM/EE impacts to total sales without DSM/EE impacts.

DEC's 2012 projections, PEC's 2012 projections are generally promising and represent a laudable improvement vis-à-vis PEC's 2011 projections.

C. WHAT A LARGER ROLE FOR RENEWABLE GENERATION AND ENERGY EFFICIENCY HAS AND CAN YET ACCOMPLISH

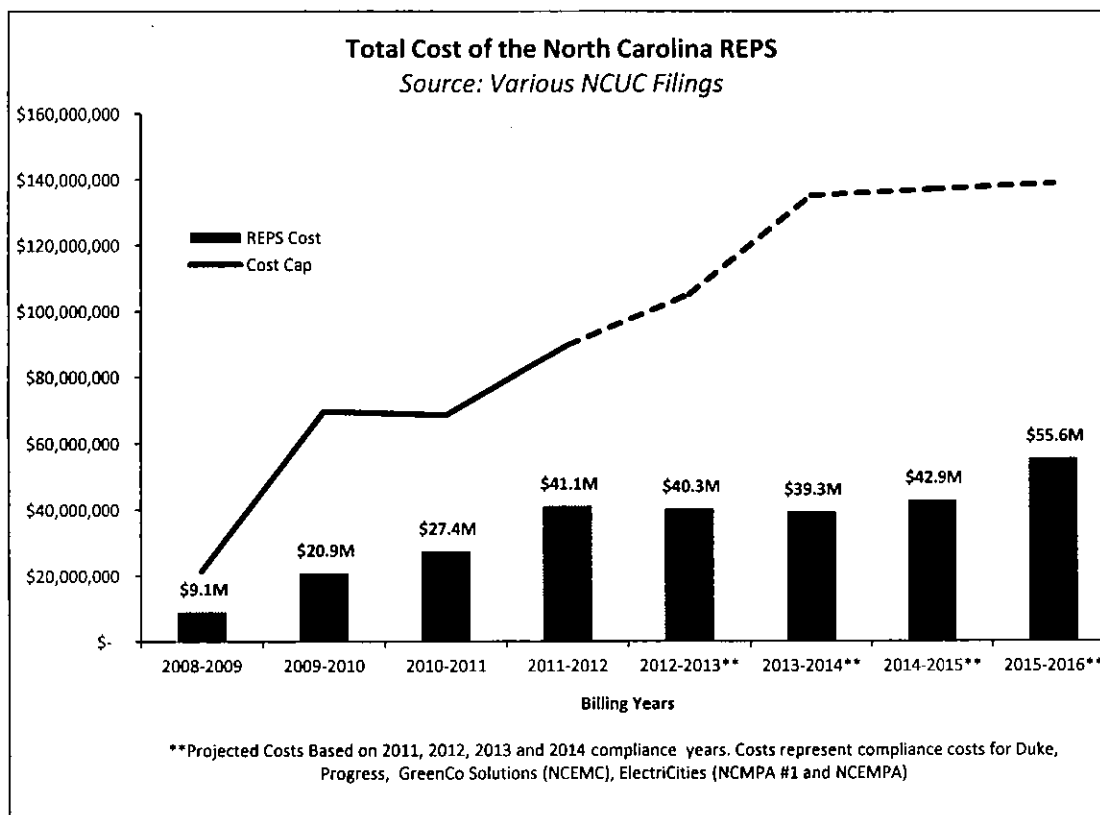
Ultimately, the greater the portfolio penetration of renewables and DSM/EE measures, the longer North Carolinas ratepayers can stave off the much more expensive build out of plants fueled with nuclear and natural gas. According to both DEC's and PEC's 2012 IRPs, both companies believe that the first conventionally fueled plant that each plans to build after all current plants under construction have commenced operation will not be needed for one calendar year later than predicted in their 2011 IRPs. DEC attributes the delay to, among other things, an increase in DSM, a decrease in its sales forecast, and a dramatic increase in capacity from utility-scale solar farms over the past year.<sup>9</sup>

Not only have renewable energy and DSM/EE contributed to the postponement of construction of conventionally fueled plants, but they have made this contribution at a cost significantly below the cost caps put in place when the REPS law was enacted. Figure 5, *infra*, illustrates that North Carolina's electric suppliers have incurred and, for the foreseeable future, will incur REPS incremental costs well below the statutory cost caps set out in N.C. Gen. Stat. § 62-133.8.

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<sup>9</sup> DEC 2012 IRP at pp. 7-9.

**Figure 5**



There is no better evidence that, as Duke puts it on its website,

the traditional approach of building new power plants to meet energy demand can no longer be the only option. [The IOUs] must find ways to improve [their] service and meet [their] customers' energy needs in a smart, lower-carbon way. Renewable generation and energy efficiency must, and will, play a larger role.

**PART 2:**  
**CONSUMERS ARMED WITH MORE INFORMATION**  
**WILL ENABLE GREATER DSM/EE IMPACTS**

As evidenced by the utilities' filed IRPs, DSM/EE is projected to play a larger role in meeting future customer demand. *See Figures 1, 3 & 4 supra.* Some of the increased DSM/EE impact will arise as a result of greater customer participation in utility programs; the remainder will arise as a result of customers taking increasing action outside the purview of utility programs (though some of these customers will be inspired

to action by the utilities' educational programs). As a matter of policy, the Commission should cultivate an increase in DSM/EE impacts regardless of whether these impacts occur within or outside of utility programs.<sup>10</sup> In this IRP proceeding, the Commission can foster increased future DSM/EE impacts by, *inter alia*, (1) recognizing that the current inadequacy of access to customer information presents a regulatory impediment to greater DSM/EE implementation, and (2) committing to open a rulemaking docket in which data accessibility in North Carolina will be addressed and modernized as appropriate.

A. CUSTOMER INFORMATION

DNCP's Code of Conduct defines "customer" as "any North Carolina retail electric customer of [DNCP]" and "customer information" as "any and all [c]ustomer specific information obtained and/or held by [DNCP]." *Application for Authority to Amend Code of Conduct*, Attachment 2, § I, Commission Docket No. E-100, Sub 380A (27 April 2011). DEC's and PEC's recently approved Code of Conduct is a bit more detailed. While its definition of "customer" is materially identical, it defines "customer information" as

Non-public information or data specific to a [c]ustomer or a group of [c]ustomers, including, but not limited to, electricity consumption, load profile, billing history, or credit history that is or has been obtained or compiled by DEC or PEC in connection with the supplying of [e]lectric [s]ervices to that [c]ustomer or group of [c]ustomers.

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<sup>10</sup> N.C. Gen. Stat. § 62-155(a) provides that "[i]t is the policy of the State to conserve energy through efficient utilization of *all* resources" regardless of whether the resource used flows through a utility program or not. NCSEA understands that DSM/EE achieved within a utility program is considered to be more of a nature that it "can be incorporated as a reliable resource in the utility's IRP[.]" *Direct Testimony of Theodore E. Schultz*, Transcript of Testimony, Vol. 3, p. 19, Commission Docket No. E-7, Sub 831 (29 June 2008). Nonetheless, DSM/EE occurring outside of utility programs is impacting load and cannot be treated as negligible for IRP purposes and ignored or not encouraged.

*Order Approving Merger Subject to Regulatory Conditions and Code of Conduct*, Appendix A to Appendix A, § I, Commission Docket Nos. E-2, Sub 998 and E-7, Sub 986 (29 June 2012). Supplementing this definition, Commission Rule R8-51 indicates that “billing history” includes, at a minimum, “the name of the rate schedule under which such consumer is served; . . . and a clear itemization of the demand billing units, basic facilities charge, KWH usage, and dollar amount of bills for each bill rendered during the period to which the data relates.”

B. THE RELATIONSHIP OF CUSTOMER INFORMATION TO INCREASED DSM/EE SMART GRID IMPACTS AND THE INTEGRATED RESOURCE PLANNING PROCESS

In 2008, DEC’s Vice President of Energy Efficiency testified that

[m]any reports indicate that it should be cost-effective for consumers to aggressively pursue energy efficiency on their own, but this clearly is not happening. . . . In an effort to address these challenges, Duke Energy conducted customer research in several of the states in which it serves retail customers, including North Carolina, to determine why our customers were not taking advantage of existing energy efficiency opportunities. Our research identified the following impediments: *Most customers do not have the data, time or desire to evaluate efficiency options. . . . Research shows most customers are not aware of the positive impact their individual behaviors can have on the welfare of others on such issues as climate change or national energy independence. . . .* These challenges limit customer participation in energy efficiency programs, regardless of who develops, markets, or administers the programs. If we are to achieve widespread adoption of all cost-effective energy efficiency, these challenges must be addressed.

*Direct Testimony of Theodore E. Schultz*, Transcript of Testimony, Vol. 3, pp. 13-14, Commission Docket No. E-7, Sub 831 (29 June 2008) (emphasis added). More pointedly, Duke’s website provides: “[C]onsumers want more information and

control[.]”<sup>11</sup> In other words, North Carolina’s largest investor-owned utility acknowledged more than 4 years ago and still acknowledges today that inadequate access to data is proving to be a challenge to more widespread implementation of DSM/EE measures.

This past summer, the Board of Directors for the National Association of Regulatory Utilities Commissioners (“NARUC”) acknowledged that the same challenge plagues the utility sector in general. On 25 July 2012, NARUC adopted a “Resolution on Customer Data Collected by Utilities.” **Exhibit 1.** In the resolution, the NARUC Board made the following factual findings:

- Electric and gas utilities collect and store information about their customers;
- Customers should know what data is being collected about their account by their utilities;
- Customers can benefit from having access to their data;
- When customers have access to their data they can use the data in a variety of tools and applications that can help them make decisions about their energy use; and
- It is often difficult for customers to know what data is available to them[.]

*Id.* Based on these findings, the NARUC Board concluded in pertinent part that a “need [exists] for utilities to disclose the information being collected” and “encourage[d] State public utility commissions to request that [their] utilities make energy usage data information available to utility customers . . . .” *Id.*

If inadequate education, access to data, and time to make use of the data are core challenges, modernizing our regulations that pertain to customer information should be of

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<sup>11</sup> Duke Energy Corporation, *Frequently Asked Questions: Why is Duke Energy building a “smart grid?”* (accessed at <http://www.duke-energy.com/about-us/smart-grid-faq.asp> on 9 January 2013).

the highest priority for North Carolina. The sooner third parties – such as research institutions and State and local governments – can access aggregated customer information, the sooner they can produce research reports and analyses that will help individuals better understand “the positive impact their individual behaviors can have on the welfare of others on such issues as climate change or national energy independence.” At the same time, the sooner educated customers and their third party proxies have greater access to customer information, the sooner they can use the customer information as an input for smart grid technologies, including “real-time, automated, interactive technologies that enable the optimization and/or operation of consumer devices and appliances[.]” Commission Rule R8-60.1(c). Optimization of consumer devices and appliances will yield increased DSM/EE impacts which, in turn, will influence the utilities’ long-term integrated resource planning by, for example, delaying or eliminating the need to build a peaking unit.<sup>12</sup>

It is important in this docket that the Commission recognize that customer information can be made more accessible in North Carolina in at least three ways (each of which is summarized here and discussed in greater detail *infra*):

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<sup>12</sup> DSM/EE should serve to delay or eliminate the need to build an additional peaking unit. Thus, for example, Duke’s Vice President of Energy Efficiency testified in 2008 that “energy efficiency results, be they conservation programs or demand response initiatives, benefit all customers. Under our save-a-watt proposal, measurable and verifiable energy and demand savings will be included as an increasing component of our IRP, delaying the need to build more generation or buy more power. This benefits all customers.” *Direct Testimony of Theodore E. Schultz*, Transcript of Testimony, Vol. 3, p. 35, Commission Docket No. E-7, Sub 831 (29 June 2008). Further, PEC notes in its IRP that “[t]he primary objective of th[e Commercial, Industrial, and Governmental (CIG) Demand Response Automation Program] is to reduce PEC’s need for additional peaking generation.” PEC 2012 IRP at p. E-7. Similarly, PEC notes that “[t]he increased peak load reduction capability and flexibility associated with [the Distribution System Demand Response Program] will result in the displacement of the need for additional peaking generation capacity.” PEC 2012 IRP at p. E-8.

- Meter-level electricity consumption, load profile, and billing history data can be made more accessible to the customer;
- Meter-level electricity consumption, load profile, and billing history data can be made more accessible to third-parties (such as smart grid technology companies); and
- Building-level and neighborhood-level (“aggregated”) electricity consumption, load profile, and billing history data can be made more accessible to third-parties (such as university researchers, local governments, and multi-tenant building owners<sup>13</sup>).

The Commission can begin the process of making customer information more accessible (or at least gathering comments and considering the wisdom of making this information more accessible) by opening a rulemaking docket.<sup>14</sup> If it does not direct that

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<sup>13</sup> NARUC issued a resolution in 2011 supporting multi-tenant building owner access to aggregated consumption data for buildings. See <http://www.naruc.org/Resolutions/Resolution%20on%20Access%20to%20Whole-Building%20Energy%20Data%20and%20automated%20Benchmarking.pdf> (accessed on 9 January 2013).

<sup>14</sup> NCSEA is aware that, beginning in 2013, Commission Rule R8-60.1 will require utilities to report information regarding their smart grid technology plans above and beyond what they are required to report under Rule R8-60, including 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.

Commission Rule R8-60.1 (c)(8) (emphasis added). These reports, however, will not serve as a substitute for the rulemaking proceeding NCSEA contemplates. Moreover, there is no reason to wait for these reports and the Commission’s late 2013 or 2014 order addressing them to open a rulemaking docket to establish a uniform framework for ensuring greater access to customer information – especially as the problematic nature of the *status quo* is evident now. NCSEA sat down with DEC and the Public Staff on three distinct occasions in 2012 in an effort to determine whether greater access could be achieved by general agreement rather than by a rulemaking proceeding or some other regulatory action. Based on the various positions of the parties to the discussion – including those of various stakeholders such as representatives of smart grid companies, university researchers, and State and local governments who participated – there does not appear to be any efficient way in which greater access can be achieved without the opening of a rulemaking docket. NCSEA believes that the sooner a rulemaking docket is opened and rules are adopted, the sooner the utilities will be able to



such a docket be opened prior to its final order in this docket, the Commission should commit to opening such a docket in its final order in this proceeding.

C. CUSTOMER ACCESS TO METER-LEVEL DATA

As Duke states on its website:

Digital technology will enable the information and control consumers need to save energy and money. It will improve and enable the integration of more renewable energy resources, while enabling more efficient and reliable electric vehicle charging. The technology will help bring the energy industry – and the resulting customer experience – into the 21st century. Think about it. In today's digital, highly connected information world, it shouldn't take 30 days for you to get information about how much energy you've used and how much it costs. By then, it's too late to take actions to help you lower your energy bill. The digital grid will make near-real time information available to you, which you can use to control your energy use and costs.<sup>15</sup>

...  
[D]igital technology is laying the groundwork for an energy evolution where information and automation enable customers and companies to work together to keep energy affordable, reliable and clean. It is our obligation to provide our customers with the information and tools necessary for them to best manage their comfort and their costs . . . .<sup>16</sup>

The smart grid will only make information available to customers *and* enable them to exercise greater control over their energy usage if a modernized regulatory infrastructure undergirds the physical infrastructure of the smart grid. The current regulatory infrastructure has become antiquated. Specifically, Commission Rule R8-51 –

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present specific details in their Rule R8-60.1 plans about how third parties will secure customer information.

<sup>15</sup> Duke Energy Corporation, *Frequently Asked Questions: What makes a smart grid different from today's grid?* (accessed at <http://www.duke-energy.com/about-us/smart-grid-faq.asp> on 9 January 2013).

<sup>16</sup> Duke Energy Corporation, *Frequently Asked Questions: Is digital grid really necessary?* (accessed at <http://www.duke-energy.com/about-us/smart-grid-faq.asp> on 9 January 2013).

promulgated in 1981, prior to the advent of the digital revolution – does too little to ensure an acceptable level of customer access to meter-level data in the digital age. **Exhibit 2** (full text of rule). The rule contemplates delivery of data in paper form; it is silent as to delivery of data in electronic form. As a result, Commission Rule R8-51 is inadequate to ensure that customers have access to a reasonable quantum of data in electronic form.

Commission Rule R8-51 should be amended to specify, first, that customers own their energy consumption data. (Duke has already publicly indicated to customers that “The information is yours.”<sup>17</sup>) At the same time, it should be clarified that the public utilities enjoy certain irrevocable rights to use the data. Commission Rule R8-51 should also be amended to specify that public utilities must afford their customers user-friendly options to electronically access their data.

Recent California and Colorado rules and recent Oklahoma legislation<sup>18</sup> can serve as models. In NCSEA’s opinion, Colorado’s recently promulgated rule is a particularly worthy model; it provides in pertinent part that

As part of basic utility service, a utility shall provide to a customer the customer’s standard customer data, access to the customer’s standard customer data in electronic machine-readable form, in conformity with nationally recognized open standards and best practices, in a manner that

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<sup>17</sup> Duke Energy Corporation, *Smart Meters Give YOU the Power* video at 2 min. 9 secs. (video accessed at [http://www.youtube.com/watch?v=iGJm5JqgnQw&list=PL5D71D5E051E93FFA&index=11&feature=plpp\\_video](http://www.youtube.com/watch?v=iGJm5JqgnQw&list=PL5D71D5E051E93FFA&index=11&feature=plpp_video) on 9 January 2013).

<sup>18</sup> See California P.U.C. Decision 11-07-056, Docket R. 08-12-009 (28 July 2011) (accessed at [http://docs.cpuc.ca.gov/WORD\\_PDF/FINAL\\_DECISION/140369.pdf](http://docs.cpuc.ca.gov/WORD_PDF/FINAL_DECISION/140369.pdf)); Colorado P.U.C. Order, Docket No. 10R-799E (2011) (attached as **Exhibit 5**); Enrolled (final version) of Oklahoma House Bill 1079 (18 May 2011) (creating the Electric Usage Data Protection Act) (accessed via link at <http://www.oklegislature.gov/BillInfo.aspx?Bill=hb1079&Session=1200> on 15 January 2012).

ensures adequate protections for the utility's system security and the continued privacy of the customer data during transmission. Such access shall be provided without additional charge.

Colorado P.U.C. Rule 3026(d).

Finally, Commission Rule R8-51 should be amended to specify that, consistent with customers' ownership interest and their purchase of the meters that measure their consumption, customers are to be afforded access to a timely stream<sup>19</sup> of data consistent with the capabilities of their respective meters.

D. THIRD-PARTY ACCESS TO METER-LEVEL DATA

As DEC's Vice President of Energy Efficiency testified in 2008, "Most customers do not have the data, time or desire to evaluate efficiency options." *Direct Testimony of Theodore E. Schultz*, Transcript of Testimony, Vol. 3, pp. 13-14, Commission Docket No. E-7, Sub 831 (29 June 2008). In other words, enabling customers greater access to their customer information is insufficient standing alone because, even if they have access in theory, few of them have the time to digest and make use of the data

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<sup>19</sup> As the quote from Duke's website makes clear, access to static monthly data alone is insufficient; access to a stream of data in as "near-real time" as possible is needed. For this reason, Commission Rule R8-51 should mandate easier electronic access to static data *and* any streaming data. As part and parcel of any such mandate, utilities should provide access in a manner that is as coordinated as possible between and among utilities, states, and the federal government. See N.C. Gen. Stat. § 62-2(a)(6) & (8). This would ensure that utilities give due consideration not only to federal initiatives such as the Green Button initiative – see <http://www.whitehouse.gov/administration/eop/ostp/pressroom/01182012> (accessed on 9 January 2013) – but also to nationally developed standards, such as the North American Energy Standards Board's Energy Services Provider Interface (ESPI) standard. The key difference between Green Button and ESPI is that Green Button is a one-time pull of data from the public utility's system, whereas ESPI represents a continuous push of usable data to the consumer on an automated basis. Absent implementation of ESPI or some similar standard, smart meters will not provide customers with maximum access to meaningful usage data in an ongoing, standardized method.

themselves. They need to be able to easily and conveniently authorize a third party of their choosing to serve as their proxy and access their data on their behalf.

A lack of clarity appears to be the central impediment to greater authorized disclosure of customer information to third parties. Because Commission Rule R8-51 does not address third party access to customer information, the lack of clarity is best illustrated by DEC's and PEC's new Code of Conduct (DNCP's Code of Conduct is materially identical though its language differs). Section III.A.2. of the DEC/PEC Code of Conduct, which governs disclosure of Customer Information, generally provides:

Customer Information shall not be disclosed to any person or company, without the Customer's consent, and then only to the extent specified by the Customer. Consent to disclosure of Customer Information to Affiliates or Nonpublic Utility Operations may be obtained by means of written authorization, electronic authorization or recorded verbal authorization upon providing the Customer with the information set forth in Attachment A; provided, however, that DEC and PEC retains such authorization for verification purposes for as long as the authorization remains in effect.

*Order Approving Merger Subject to Regulatory Conditions and Code of Conduct*, Appendix A to Appendix A, § III.A.2, Commission Docket Nos. E-2, Sub 998 and E-7, Sub 986 (29 June 2012).

The first sentence of Section III.A.2. appears to permit disclosure of customer information to third parties to the extent consented to by the customer. However, the manner in which a customer consents to disclosure to a third party that is neither a DEC/PEC affiliate nor a nonpublic utility operation is unclear. The second sentence of Section III.A.2. provides clarity as to affiliates and nonpublic utility operations: Disclosure to these entities can be consented to in writing – on paper or electronically – or orally. As far as the written consent is concerned, two forms are attached to the Code of Conduct – one for customer authorization of disclosure to affiliates and another for

disclosure to nonpublic utility operations. **Exhibit 3** (two forms). There is no form for authorizing disclosure to a non-affiliated third party; nor is there any indication that customer authorization of non-affiliated third-party access can be accomplished electronically or orally. Customers and their third party proxies should not have to engage in extensive negotiations to arrive at an acceptable disclosure authorization agreement.<sup>20</sup>

Colorado's rules can once again serve as a model for affording North Carolina customers clarity. Colorado P.U.C. Rule 3026(e) states:

A utility shall provide to any third-party recipient to whom the customer has authorized disclosure of the customer's customer data, access to the customer's standard customer data in electronic machine-readable form, in conformity with nationally recognized open standards and best practices, in a manner that ensures adequate protections for the utility's system security and the continued privacy of the customer during transmission. Such access shall be provided without additional charge to the customer or the third-party recipient.

Beyond this rule, Colorado P.U.C. Rule 3028(a) requires public utilities to make available a standard form for customer authorization of disclosure to non-affiliated third parties. Furthermore, Colorado P.U.C. Rule 3028(b) permits public utilities to accept electronic authorizations where the customer's identity can be verified.

The need for clarification of the North Carolina process for authorizing third party access to customer information, including creating and making available standard authorization forms, is considerable. It is an incredible loss of opportunity when, for

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<sup>20</sup> The forms attached as **Exhibits 4a** and **4b** are illustrative of the inadequacy of the status quo. **Exhibit 4a** represents a disclosure authorization form DEC proposed the City of Durham use in connection with a program the City wanted to implement. The form was unacceptable to the City. Ultimately, after negotiation, DEC and the City agreed to use the form attached as **Exhibit 4b**. But, upon information and belief, DEC will not agree to use of this negotiated form for future disclosure authorizations and instead believes authorizations need to be drafted on a case-by-case basis.

example, an educated customer wants to make use of an in-house energy usage dashboard operated by a third party but is stymied because he cannot easily authorize the third party to access his energy usage data. Such scenarios not only stifle increased adoption of DSM/EE measures by customers, but they also stifle the ability of smart grid developers to develop and roll out their innovative products.<sup>21</sup>

E. THIRD-PARTY ACCESS TO AGGREGATED DATA

“[C]onsumers want more information and control[.]”<sup>22</sup> Making customer information more accessible to customers and their third party proxies is critically necessary to meeting these educated customers’ expectations for greater access and control. But, as DEC’s Vice President of Energy Efficiency testified in 2008, “Research shows most customers are not aware of the positive impact their individual behaviors can have on the welfare of others on such issues as climate change or national energy independence.” *Direct Testimony of Theodore E. Schultz*, Transcript of Testimony, Vol. 3, pp. 13-14, Commission Docket No. E-7, Sub 831 (29 June 2008). The pool of educated customers can be enlarged by cultivating research in the DSM/EE area. A critical step in cultivating such research is making aggregated/de-identified customer

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<sup>21</sup> As NARUC has concluded,

[t]here may be opportunities for parties other than electric utilities to contribute to the development of the smart grid – particularly when third parties increase efficiency and enhance customer opportunity. Third parties may be able to provide consumers new information[.] . . . Commissions should consider whether existing rules and practices impose undue barriers to beneficial competition and innovation[.]

NARUC 2011 Resolution on Smart Grid Principles (accessed at <http://www.naruc.org/Policy/Resolutions/Resolution%20on%20Smart%20Grid%20Principles.pdf> on 10 January 2013).

<sup>22</sup> Duke Energy Corporation, *Frequently Asked Questions: Why is Duke Energy building a “smart grid?”* (accessed at <http://www.duke-energy.com/about-us/smart-grid-faq.asp> on 9 January 2013).

information<sup>23</sup> easier to access for university and State and local government researchers. Making this kind of access easier will foster public research, the results of which will help to educate customers as to the real and potential impacts of their energy-related behaviors. See, e.g., *Petition of DEC for a Limited Waiver of Code of Conduct Provisions*, pp. 6-7, Commission Docket No. E-7, Sub 997 (15 December 2011) (DEC sought permission to share data aggregated at the neighborhood-level with the City of Charlotte and UNC-Charlotte, indicating that DEC “believes that the research the City of Charlotte is doing . . . will ultimately benefit its citizens, including [DEC’s] customers, by helping them understand their aggregate energy consumption, which will enable them to design appropriate strategies to minimize their environmental impacts”).

Aggregated/de-identified data is of considerable value to researchers interested in better understanding patterns and processes associated with conservation and consumption practices. However, researchers seeking aggregated/de-identified data are currently being confounded by the utilities’ Codes of Conduct, particularly the DEC/PEC Code of Conduct’s inclusion of the phrase “group of [c]ustomers” in the definition of “customer information.” DEC/PEC’s Code of Conduct defines “customer information” as

Non-public information or data specific to a [c]ustomer *or a group of [c]ustomers*, including, but not limited to, electricity consumption, load

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<sup>23</sup> For clarity’s sake, de-identified data consists of multiple customers’ customer information that has been scrubbed of all identifying information such as name, address, account number, etc. An example of de-identified data would be a spreadsheet which included only the energy consumption (kWh) associated with each residentially-tariffed meter with a Mecklenburg County billing address for the December-January 2012 billing cycle. Similarly, aggregated data consists of statistics associated with multiple customers’ customer information. For example, the de-identified data mentioned in the previous example could be used to create the average residential consumption (kWh) statistic for Mecklenburg County for the December-January 2012 billing cycle.

profile, billing history, or credit history that is or has been obtained or compiled by DEC or PEC in connection with the supplying of [e]lectric [s]ervices to that [c]ustomer or group of [c]ustomers.

*Order Approving Merger Subject to Regulatory Conditions and Code of Conduct*, Appendix A to Appendix A, § I, Commission Docket Nos. E-2, Sub 998 and E-7, Sub 986 (29 June 2012) (emphasis added). NCSEA understands that DEC/PEC and the Public Staff narrowly construe the “group of [c]ustomers” language to prohibit the disclosure of aggregated data even when the data does not disclose personal or meter-level information. It was this construction, at least in part, that prompted DEC to file its application for a waiver from the Code of Conduct in Commission Docket No. E-7, Sub 997 in order to be able to disclose aggregated data to the City of Charlotte and UNC-Charlotte. Disclosing aggregated data should not, however, require close to a year of negotiation between a university and a utility, nor should an individualized order be required each time. If the process for securing aggregated/de-identified data remains this laborious, researchers are left with no alternative but to abandon research in this area because seeking individual authorizations is impractical – as DEC has acknowledged, “due to the number of customers . . . seeking authorizations for disclosure from all affected customers is not feasible.”<sup>24</sup> *Petition of DEC for a Limited Waiver of Code of Conduct Provisions*, p. 4, Commission Docket No. E-7, Sub 997.

Despite the utilities’ and the Public Staff’s current constructions of the utilities’ Codes of Conduct, the utilities appear to regularly disclose information specific to a “group of customers,” without customer authorization or explicit waiver from their Codes of Conduct. For example,

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<sup>24</sup> At present, this infeasibility is only heightened by the absence of a standardized form customers can use to authorize third party/researcher access to their information.



- In their annual DSM/EE cost recovery riders, the utilities disclose “[p]rojected North Carolina retail monthly kWh sales for the rate period for all industrial and large commercial accounts, *in the aggregate, that*” have opted-out. Commission Rule R8-69(f)(1)(vii) (emphasis added); *see Order Adopting Final Rules*, p. 137, Commission Docket No. E-100, Sub 113 (29 February 2008) (“the Commission does not intend for the electric public utilities to file customer-specific data, and concludes that the rule should be clarified such that the electric public utilities are only required to file aggregated sales data for the industrial and large commercial accounts that opt out”).
- DEC appears to be disclosing aggregated/de-identified consumption data when it permits customers to “[f]ind out how [their] home’s energy usage compares to similar homes in [their] area.”<sup>25</sup> PEC has a similar program in place.
- PEC’s Solar Water Heating Pilot Program Final Report filed in Commission Docket No. E-2, Sub 937 appears to disclose aggregate data about the pilot participants.
- In DEC’s “Powering Site Selection” presentation, on the second to last slide, accessible at <http://www.duke-energy.com/electricity101/> (viewed on 2 January 2013), DEC provides “average” loads for McDonald’s restaurants and Wal-Mart stores.

Such instances serve only to emphasize the need for clarity surrounding what types of aggregated/de-identified data *can* be disclosed without customer authorization or waiver from a code of conduct, and what types *cannot* be disclosed.

To be clear: NCSEA understands the pole-star importance of maintaining the privacy of customers’ personal information in the absence of a disclosure authorization. At the same time, NCSEA feels confident that the utilities can disclose aggregated/de-

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<sup>25</sup> Duke Energy Corporation, *We’ve Improved Duke Energy Online Services* (associated with DEC’s My Home Energy Report program approved in Commission Docket No. E-7, Sub 1015) (accessed at <http://www.duke-energy.com/ols-preview-north-carolina-res.aspx#> on 9 January 2013); *see also* Duke Energy videos accessible at [http://streams.duke-energy.com/products\\_services.aspx](http://streams.duke-energy.com/products_services.aspx) (viewed on 9 January 2013) and [http://www.youtube.com/watch?v=iGJm5JqgnQw&list=PL5D71D5E051E93FFA&index=11&feature=plpp\\_video](http://www.youtube.com/watch?v=iGJm5JqgnQw&list=PL5D71D5E051E93FFA&index=11&feature=plpp_video) (viewed on 9 January 2013).

identified data without endangering customers' personal information.<sup>26</sup> Our North Carolina utilities are not the first large organizations to collect sensitive personal information from North Carolina's residents; the U.S. Census Bureau and the North Carolina Department of Revenue, for example, also collect sensitive personal information, like income information, from North Carolina's residents. These latter two entities regularly disclose aggregated/de-identified data without imperiling residents' private information. These entities accomplish this feat by, for example, only disclosing aggregated data at spatial resolutions sufficient to mask the residents' private information or by disclosing de-identified data. *See, e.g.*, N.C. Gen. Stat. § 105-259(a)(2).<sup>27</sup> Our utilities can do likewise.

NCSEA once again believes rules in California and Colorado and a statute in Oklahoma can serve as models for North Carolina rulemaking. All of these states permit disclosure of aggregated data without customer authorization. The California P.U.C., for example, recently issued an order providing:

Covered entities shall permit the use of aggregated usage data that is removed of all personally-identifiable information to be used for analysis, reporting or program management provided that the release of that data does not disclose or reveal specific customer information because of the size of the group, rate classification, or nature of the information.

*Decision Adopting Rules to Protect the Privacy and Security of the Electricity Usage Data of the Customers of Pacific Gas and Electric Company, Southern California Edison*

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<sup>26</sup> "Rules that govern data access must balance privacy with innovation." NARUC 2011 Resolution on Smart Grid Principles (accessed at <http://www.naruc.org/Policy/Resolutions/Resolution%20on%20Smart%20Grid%20Principles.pdf> on 10 January 2013).

<sup>27</sup> The North Carolina Public Records Law protects "tax information" from having to be disclosed by the State, *see* N.C. Gen. Stat. § 132-1.1, but N.C. Gen. Stat. § 105-259(a)(2) makes express that the term "tax information" does not "include . . . statistics classified so that information about specific taxpayers cannot be identified." Such statistical information is a discloseable record.

*Company, and San Diego Gas & Electric Company*, California Public Utilities Commission Decision 11-07-056, Rulemaking 08-12-009, 2011 Cal. PUC LEXIS 404 at \*\*137-143 (28 July 2011). Colorado P.U.C. Rule 3031(b) similarly provides in pertinent part:

In aggregating customer data to create an aggregated data report, a utility must take steps to ensure the report is sufficiently anonymous in its aggregated form so that any individual customer data or reasonable approximation thereof cannot be determined from the aggregated amount. At a minimum, a particular aggregation must contain: (1) at least fifteen customers or premises, and (2) within any customer class, no single customer's customer data or premise associated with a single customer's customer data may comprise 15 percent or more of the total customer data aggregated per customer class to generate the aggregated data report (the "15/15 Rule"). Notwithstanding, the 15/15 Rule, the utility shall not be required to disclose aggregated data if such disclosure would compromise the individual customer's privacy or the security of the utility's system.

Finally, Oklahoma's recently enacted Electric Usage Data Protection Act provides in pertinent part:

1. Subject to the restrictions in paragraph 2 of this subsection and without customer consent, electric utilities may disclose aggregate usage data to third parties and may make aggregate usage data generally available to the public for purposes such as promoting energy assistance, conservation, environmental advocacy, research, or measuring company performance.
2. Any aggregate usage data disclosed as authorized in paragraph 1 of this subsection shall contain a sufficient number of similarly situated customers within a particular geographic area so that the daily usage routines or habits of an individual customer could not reasonably be deduced from the data.

17 Okl. St. § 710.7(B.)1. & 2.

NCSEA understands that a question of cost arises in connection with any request for aggregated or de-identified data. NCSEA believes this issue is appropriately addressed in any rulemaking and supports the proposition that reasonable costs be borne

by the requestor. Colorado's rule admirably addresses the issue of costs associated with requests for aggregated data. Colorado P.U.C. Rule 3031(d)(IV) (attached as **Exhibit 5**).

F. COMMISSION AUTHORITY TO ADOPT ACCESSIBILITY RULES AND  
MODIFY CURRENT RULE R8-51 AND CURRENT CODES OF CONDUCT

NCSEA believes the public interest, together with impending changes of the ilk described by Duke on its website, *supra* at p. 1, require amendment of Commission Rule R8-51 and, contemporaneously, clarification and/or modification of DEC's, PEC's and DNCP's Codes of Conduct. Failure to amend the rule and clarify and/or modify the Codes of Conduct will not only run counter to the public interest, it will also jeopardize the continued development of North Carolina as a "leading tech hub" for smart grid businesses.<sup>28</sup>

Given the clear public interest, the only concern the Commission should have is whether it has the authority to engage in the rulemaking that NCSEA is advocating be initiated in a separate docket. The Commission unquestionably does have the authority. N.C. Gen. Stat. § 62-31 authorizes the Commission "to make and enforce reasonable and necessary rules and regulations" in connection with the administration of Chapter 62 of the North Carolina General Statutes. Commission rulemaking is exempt from the provisions of Chapter 150B of the North Carolina General Statutes. N.C. Gen. Stat. § 150B-1(c)(3). Thus, the Commission is empowered to issue new rules and amend

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<sup>28</sup> "Market research firm SBI Energy estimates that the global market value of smart grid-related products grew to \$69 billion in 2009, from \$26 billion in 2005, and will reach \$186 billion by 2015. This appeals to a number of companies, including ABB, GE, and Siemens, as well as AT&T, Cisco, Honeywell International, Johnson Controls, Red Hat, and Verizon, which all have operations in the research triangle area, according to Duke University's Center on Globalization, Governance & Competitiveness[.]" Business Week, *Raleigh's Smart Grid Bid*, 13 October 2011 (accessed at <http://www.businessweek.com/technology/raleighs-smart-grid-bid-10132011.html> on 9 January 2013).

existing rules, including Commission Rule R8-51. The Commission also has the authority to amend and/or modify DEC's, PEC's and DNCP's Codes of Conduct. *See, e.g.,* Commission Docket No. E-2, Sub 844 (initiated by a Progress petition to revise its Code of Conduct); Commission Docket No. E-22, Sub 424 (initiated by a DNCP petition seeking a waiver of its Code of Conduct).

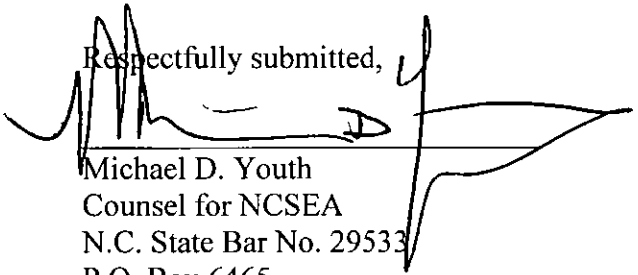
### **CONCLUSION**

NCSEA recognizes the utilities' admirable overall projections in their 2012 IRPs – projections that generally reflect the increasingly apparent fact that “[r]enewable energy and energy efficiency must, and will, play a larger role.” Nevertheless, the utilities should be encouraged to continue to reach for ever greater achievement. Making customer information more accessible is one area where greater achievement is immediately possible.

This Commission should take the first step toward making customers' ability to access their information easier. It should commit in this proceeding to open a separate rulemaking docket focused on creating and/or modernizing rules for accessing customer information. Specifically, the Commission should (1) examine the current regulatory infrastructure that deals with access to customer information, (2) conclude the current regulatory infrastructure at a very minimum *may* be antiquated and in need of modernization to reflect the digital revolution and its effects on technology and public expectations, and (3) commit to opening a docket in which the following aspects of regulatory modernization can be commented on and innovatively moved forward as appropriate:

- Making meter-level electricity consumption, load profile, and billing history data more accessible to the customer;
- Making meter-level electricity consumption, load profile, and billing history data more accessible to third-parties (such as smart grid technology companies); and
- Making aggregated/de-identified electricity consumption, load profile, and billing history data more accessible to third-parties.

Respectfully submitted,

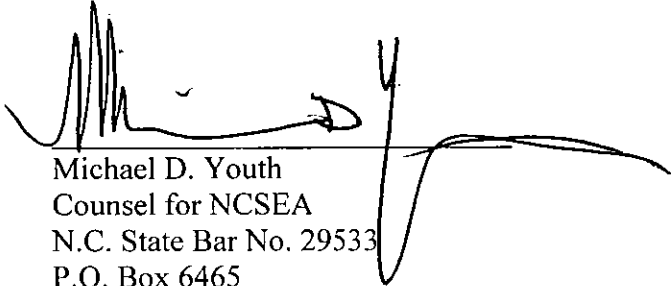


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### **CERTIFICATE OF SERVICE**

I hereby certify that all persons on the docket service list have been served true and accurate copies of the foregoing Comments by hand delivery, first class mail deposited in the U.S. mail, postage pre-paid, or by email transmission with the party's consent.

This the 5<sup>th</sup> day of February, 2013.



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## **EXHIBIT 1**

***Resolution on Customer Data Collected by Utilities***

**WHEREAS**, Electric and gas utilities collect and store information about their customers; *and*

**WHEREAS**, Customers should know what data is being collected about their account by their utilities; *and*

**WHEREAS**, Customers can benefit from having access to their data; *and*

**WHEREAS**, When customers have access to their data they can use the data in a variety of tools and applications that can help them make decisions about their energy use; *and*

**WHEREAS**, It is often difficult for customers to know what data is available to them; *and*

**WHEREAS**, The U.S. Department of Energy and the National Renewable Energy Laboratory have created a Website, [www.OpenEI.org](http://www.OpenEI.org), to give customers a simple way to find out what data is available to them; *and*

**WHEREAS**, The NARUC Board of Directors, on July 20, 2011, passed the “Resolution on Access to Whole-Building Energy Data and Automated Benchmarking” that encourages State public utility commissions to take all reasonable measures to facilitate convenient, electronic access to utility energy usage data for building owners, *now, therefore be it*

**RESOLVED**, That the Board of Directors of the National Association of Regulatory Utility Commissioners, convened at its 2012 Summer Committee Meetings in Portland, Oregon, acknowledges the need for utilities to disclose the information being collected and available to its customers in clear and understandable language; *and be it further*

**RESOLVED**, That NARUC encourages State public utility commissions to request that its utilities make energy usage data information available to utility customers, and to disclose such information to a central location, such as the “Utility Data Access Map” located on OpenEI.org.<sup>1</sup>

*Sponsored by the Committees on Energy & the Environment and on Consumer Affairs  
Adopted by the NARUC Board of Directors July 25, 2012*

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<sup>1</sup> [http://en.openel.org/wiki/OpenEI:Utility\\_data\\_access\\_map](http://en.openel.org/wiki/OpenEI:Utility_data_access_map)



***Resolution on Access to Whole-Building Energy Data and Automated Benchmarking***

**WHEREAS**, Commercial and industrial building owners spend \$200 billion each year on facility energy consumption;<sup>1</sup> *and*

**WHEREAS**, Whole-building energy benchmarking is an important tool that enables commercial building owners and managers to identify energy performance issues in buildings, undertake energy management actions and cost-effective improvements in buildings, track energy performance over time, and set energy performance goals; *and*

**WHEREAS**, Several utilities<sup>2</sup> are utilizing the U.S. Environmental Protection Agency's ENERGY STAR automated benchmarking services, a measure that protects customer data privacy and increases benchmarking data accuracy; *and*

**WHEREAS**, Demand reductions motivated by data access and benchmarking allow utility programs to drive greater energy efficiency results per program dollar, increasing the cost-effectiveness of overall portfolios; *and*

**WHEREAS**, Demand reductions motivated by benchmarking can result in direct cost savings to customers and peak load reductions that benefit all ratepayers; *and*

**WHEREAS**, More than 80,000 buildings were benchmarked in 2010 using performance assessment software from the EPA's ENERGY STAR program, the nation's most widely used benchmarking program;<sup>3</sup> *and*

**WHEREAS**, The Building Owners and Managers Association (BOMA) International and the Real Estate Roundtable, the nation's largest commercial property associations representing more than 10 billion square feet of floor space, support voluntary ENERGY STAR whole-building benchmarking and measures that promote whole-building benchmarking; *and*

**WHEREAS**, The U.S. Green Building Council's LEED Green Building Rating System, the nation's most widely used green building rating system, utilizes ENERGY STAR benchmarking to document performance in the Energy and Atmosphere category of LEED for Existing Buildings: Operations and Maintenance; *and*

**WHEREAS**, New regulations in local jurisdictions, including the states of California and Washington, and the cities of New York, Seattle, Austin, and Washington, DC, require the benchmarking of privately owned commercial facilities<sup>4</sup>; *and*

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<sup>1</sup> National Action Plan for Energy Efficiency (2008). *Utility Best Practices Guidance for Providing Business Customers with Energy Use and Cost Data*. ICF International. Available at [http://www.epa.gov/cleanenergy/documents/suca/utility\\_data\\_guidance.pdf](http://www.epa.gov/cleanenergy/documents/suca/utility_data_guidance.pdf).

<sup>2</sup> Utilities include Commonwealth Edison Co. (ComEd), Pacific Gas and Electric Co. (PG&E), Southern California Edison (SCE) and the Sacramento Municipal Utility District (SMUD).

<sup>3</sup> Estimate based on partial-year 2010 data from EPA ENERGY STAR Fall Snapshot (2010). *Measuring Progress in the Commercial and Industrial Sectors*. U.S. EPA ENERGY STAR. Available at [http://www.energystar.gov/ia/business/downloads/Fall\\_2010\\_ENERGY\\_STAR\\_Snapshot.pdf](http://www.energystar.gov/ia/business/downloads/Fall_2010_ENERGY_STAR_Snapshot.pdf).

**WHEREAS**, The Energy Independence and Security Act of 2007<sup>5</sup> requires benchmarking as a prerequisite for commercial leases signed by the Federal government, which leases more than 300 million square feet of commercial space nationally; *and*

**WHEREAS**, Access to aggregated building energy usage data by commercial building owners may be difficult to obtain and may be a significant barrier to whole building benchmarking because the data resides in multiple utility accounts with multiple tenants and may require the consent of each tenant customer to release or even aggregate the data; *now, therefore be it*

**RESOLVED**, That the Board of Directors of the National Association of Regulatory Utility Commissioners, convened at its 2011 Summer Committee Meetings in Los Angeles, California, acknowledges the need for commercial building owners and managers to access whole-building energy consumption data to support energy-efficient building operations; *and be it further*

**RESOLVED**, That NARUC encourages State public utility commissions seeking to capture cost-effective energy savings from commercial buildings to consider a comprehensive benchmarking policy that includes:

- Use of EPA ENERGY STAR automated benchmarking services and other benchmarking services, such as the Commercial Building Consumption Survey;
- Adopting methodologies to consistently and accurately credit program impact to benchmarking-driven energy efficiency programs; and
- Taking all reasonable measures to facilitate convenient, electronic access to utility energy usage data for building owners, including aggregated building data that does not reveal customer-specific data to protect individual customer privacy, as well as the sharing of customer-specific data to the extent provided for under State law and regulations.

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*Sponsored by the Committee on Energy Resources and the Environment  
Adopted by the NARUC Board of Directors July 20, 2011*

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<sup>4</sup> See <http://www.imt.org/rating> for information on benchmarking regulations in cities and states.

<sup>5</sup> U.S. Public Law No. 110-140.

**WHEREAS**, The Energy Independence and Security Act of 2007<sup>5</sup> requires benchmarking as a prerequisite for commercial leases signed by the Federal government, which leases more than 300 million square feet of commercial space nationally; *and*

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- Adopting methodologies to consistently and accurately credit program impact to benchmarking-driven energy efficiency programs; and
- Taking all reasonable measures to facilitate convenient, electronic access to utility energy usage data for building owners, including aggregated building data that does not reveal customer-specific data to protect individual customer privacy, as well as the sharing of customer-specific data to the extent provided for under State law and regulations.

*Sponsored by the Committee on Energy Resources and the Environment  
Adopted by the NARUC Board of Directors July 20, 2011*

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<sup>4</sup> See <http://www.imt.org/rating> for information on benchmarking regulations in cities and states.

<sup>5</sup> U.S. Public Law No. 110-140.

### ***Resolution on Smart Grid Principles***

**WHEREAS**, NARUC supports the adoption and implementation of smart grid technology because smart upgrades to, and modernization of, the transmission and distribution system can make the electric grid more efficient and offer benefits to consumers and society, especially when combined with advanced metering, efficient pricing, and consumer-focused technologies; *and*

**WHEREAS**, Since 2000, NARUC has expressed that support by adopting resolutions addressing important issues arising from advanced metering and smart grid deployments, including ratemaking, reliability, cyber security, consumer education, consumer protection and privacy;<sup>1</sup> *and*

**WHEREAS**, State commissions bear the ultimate responsibility for ensuring that smart grid investments funded wholly or in part by ratepayer dollars are just and reasonable and properly balance the needs of the consumer, the grid, and the utilities; *and*

**WHEREAS**, State commissions are in the best position to consider unique local situations, including market structures, infrastructure needs, consumer concerns, and policy priorities; *and*

**WHEREAS**, In order to advance the development and collective understanding of smart grid technologies and policy—and to help State commissions make the best possible decisions—NARUC members have participated in valuable dialogues with federal government agencies, including the National Science and Technology Council Committee on Technology Smart Grid Subcommittee, the Department of Energy, the Federal Energy Regulatory Commission, the United States Department of Agriculture's Rural Utilities Service, the National Institute of Standards and Technology, and the Federal Communications Commission; *and*

**WHEREAS**, To the same ends, NARUC Commissioners have also participated in a series of valuable Critical Consumer Issues Forum (CCIF) meetings with consumer advocates and utility representatives. These meetings have been valuable in facilitating communications and a better understanding of the interests and concerns of the stakeholders; the CCIF collaboration should continue; *and*

**WHEREAS**, The NARUC Smart Grid Working Group was formed to consult with the White House during the preparation of its "Policy Framework for the 21<sup>st</sup> Century Grid: Enabling Our Secure Energy Future," issued on June 13, 2011; *now, therefore be it*

**RESOLVED**, That the Board of Directors of the National Association of Regulatory Utility Commissioners, convened at its 2011 Summer Committee Meetings in Los Angeles, California, while recognizing that grid modernization will evolve over time and additional principles may emerge, endorses the following foundational principles relating to advanced metering and smart

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<sup>1</sup> See e.g., *Resolution on Smart Grid*, July 2010; *Resolution Regarding Cybersecurity*, February 2010; *Resolution Regarding Smart Grid*, July 2009; *Resolution Supporting the National Action Plan for Energy Efficiency VISION FOR 2025: Developing a Framework for Change*, February 2008; *Resolution to Remove Regulatory Barriers to the Broad Implementation of Advanced Metering Infrastructure*, February 2007; *Resolution Encouraging State commissions to Adopt Full and Open Access Rules for Distributed Generation Technologies and to Remove Regulatory Barriers and Promote "Best Practices" That Encourage Economic Deployment of Distributed Generation Technologies*, (July 2000); *Resolution Urging Adoption of General Privacy Principles For State Commission Use in Considering Privacy Implications of the Use of Utility Consumer Information*, (July 2000).

grid deployments for the purpose of educating NARUC members and identifying issues of concern and interest to State regulators, the federal government and others:

- *Potential of Smart Grid Investments.* State commissions should consider the potential for smart grid investments to improve reliability, provide for a more resilient power system, reduce peak demand, provide consumers with more detailed information regarding their energy usage, integrate renewable resources, reduce consumption of electricity, increase operational efficiencies to potentially offset or reduce the rate of increasing electricity costs, and enable economic growth and innovation.
- *Evaluating Smart Grid Investments.* When evaluating proposed smart grid investments, State commissions should require the quantification of the benefits and costs of proposed project(s) to the extent reasonably possible. Any qualitative benefits and costs used in the analysis and decision-making should be identified and articulated to the extent reasonably possible. State commissions should identify the risks and rewards of smart grid investment projects and allocate those risks and rewards appropriately to utility shareholders and consumers.
- *Cost recovery.* Cost recovery for smart grid investment should be predicated primarily on the cost of such investments and any economic, reliability, environmental, or other benefits and should consider aligning payments by consumers with benefits to consumers to the extent reasonably possible. State commissions should consider, to the extent possible, anticipated costs of future investments that would reasonably or necessarily follow from proposed investments.
- *Dynamic Rates, Usage Data and Controls.* State commissions should consider whether to encourage or require the use of tools and innovations that can help consumers understand their energy usage, empower them to make informed choices, and encourage consumers to shift their usage as appropriate. These tools may include dynamic rate structures, energy usage information and comparisons, in-home devices and Web-based portals.
- *Smart Devices.* State commissions should consider whether and how proposed smart grid projects will interact with and encourage smart appliances and other devices that can optimize electricity usage, implement consumer preferences, and provide opportunities to reduce power system costs without requiring significant changes in consumer behavior.
- *Consumer Engagement.* Consumer education and engagement are essential to a successful smart grid deployment. State commissions should require smart grid implementation plans to include comprehensive consumer education programs, appropriate funding for consumer education in the cost of the program, and involve utilities, consumer advocates, the commission, and third parties in the process of designing and implementing consumer education. Education proposals should address how the effectiveness of consumer education programs will be evaluated. Consumer behavior studies and well-structured experimental design may inform consumer education approaches, as may the emerging market demand for smart-home applications and services.
- *Consumer Protections.* When reviewing a smart grid deployment, State commissions should consider any potential impacts to vulnerable populations and ensure that sufficient protections are in place.

- *Data Access.* Consumers should have access to their own energy usage data. Such Consumer Energy Usage Data (CEUD) should continue to be available to the regulated utilities for the purpose of providing essential regulated utility service. Rules that govern data access must balance privacy with innovation. When considering rules to govern access to CEUD, State commissions should determine: how third party entities will receive authorization to obtain CEUD, which entities will be responsible for providing CEUD to authorized entities, in what form, and at what cost, if any; how to ensure that consumers have affordable and timely access to their own CEUD; what data should be made available, with consumers' informed consent and authorization, in a competitively neutral manner to utility affiliates and third parties; and how the data access rules will affect innovation. The NAESB Third Party Access to Smart Meter-based Information provides a good reference point when developing such rules.
- *Privacy Issues.* Consumer privacy is essential and should be protected. When considering or implementing smart grid investments, State commissions should review existing privacy policies, and, if necessary, adopt or update their policies to ensure that they properly address the privacy concerns created by smart meter data collection and transmission and track national privacy best practices. Commissions should require utilities and any relevant third parties to comply with those policies. NARUC is preparing a best practice guide to help State commissions craft policies for data access and privacy.<sup>2</sup>
- *Interoperability Standards.* When evaluating smart grid investments, State commissions should consider how certified smart grid interoperability standards may reduce the cost and improve the performance of smart grid projects and encourage participation in the Smart Grid Interoperability Panel, a public-private partnership that is coordinating and accelerating the development of interoperability standards for the smart grid.
- *Network Communications Needs.* When evaluating smart grid investments, State commissions should examine utility proposals to ensure that the communications networks selected for particular business applications are reliable, resilient, flexible, secure, standards-based, and scalable, have adequate coverage area, and provide continuity during emergency and non-emergency periods. Several communications platforms and solutions may be able to meet these requirements, including wireless, wireline, commercially available, and proprietary networks. Utilities should consider a range of alternatives, including existing communications infrastructures, to ensure that the communications infrastructure investments represent the best possible solutions.
- *Security Issues.* As a condition of approving smart grid investments, State commissions should hold utilities responsible for ensuring that smart grid technologies are deployed in a manner consistent with reasonable and effective cyber and physical security best practices. Smart grid systems should be designed to mitigate risks and enhance the resiliency of the power grid and preserve the accuracy, integrity, and privacy of data. State commissions

<sup>2</sup>

There are many resources on privacy policies, that will guide NARUC's efforts, including the NIST Guidelines for Smart Grid Cyber Security (NISTIR 7628) Section on Privacy and the Smart Grid; the North American Energy Standards Board (NAESB) Recommended Standard for Third Party Access to Smart Meter-based Information, which surveyed the landscape of smart grid privacy documents, *available here*: [http://www.naesb.org/data\\_privacy.asp](http://www.naesb.org/data_privacy.asp); and the Fair Information Practices Principles, *see e.g.* <http://www.ftc.gov/reports/privacy3/fairinfo.shtm>.

should refer to the cyber security standards promulgated by NERC and the NIST cyber security guidelines and recognize that cyber security requires coordination, adaptability and resiliency that goes beyond standards compliance. State commissions should require utilities to employ cost-effective measures to protect the grid's critical systems, while recognizing that a determined adversary may be capable of infiltrating non-essential systems. Further, State commissions may want to assure that utilities have recovery plans in the event of a successful cyber or physical threat.

- *Lessons Learned.* When considering smart grid investments, commissions may benefit from the data, analysis, and lessons learned from early deployments including through information provided by our technical assistance partners.<sup>3</sup> Utilities are expected to use best efforts to continuously monitor the results and data from smart grid deployments and to submit proposals that reflect best practices and lessons learned.
- *Third Party Deployments.* There may be opportunities for parties other than electric utilities to contribute to the development of the smart grid – particularly when third parties increase efficiency and enhance consumer opportunity. Third parties may be able to provide consumers new information, pricing and service options or to deploy microgrids, distributed generation and storage, energy management or other smart grid systems and technologies. Commissions should consider whether existing rules and practices impose undue barriers to beneficial competition and innovation and how to maintain appropriate regulatory oversight and consumer protections.
- *Work with Federal Partners.* NARUC welcomes and appreciates federal technical assistance that member commissions receive from DOE and other federal initiatives, including the NSTC Smart Grid Subcommittee, as well as the constructive dialogue of the FERC-NARUC Smart Response Collaborative, insofar as these discussions support commissions' sound decision-making processes. Federal policies should not interfere with State jurisdiction or programs but help ensure that consumers can receive the full benefits of smart grid deployments.

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*Sponsored by the Committees on Consumer Affairs, Critical Infrastructure, Electricity, Energy Resources and the Environment, Gas, and Telecommunications*  
*Adopted by the NARUC Board of Directors July 20, 2011*

## **EXHIBIT 2**



**Rule R8-51. PROVISION OF PAST BILLING HISTORY UPON CONSUMER REQUEST.**

Each utility, upon the request of one of its consumers, shall provide the past billing information of such consumer as provided in this rule. The minimum information which shall be provided shall include the following in an easily understood format: the name of the rate schedule under which such consumer is served; a clear specification of the months and years of data supplied (twelve month minimum); and a clear itemization of the demand billing units, basic facilities charge, KWH usage, and dollar amount of bills for each bill rendered during the period to which the data relates. The utility may charge up to \$5.00 for all subsequent requests for a past billing history made by the same consumer for the same service location within a twelve (12) month period.

(NCUC Docket No. E-100, Sub 36, 1/5/81.)

## **EXHIBIT 3**

**CODE OF CONDUCT  
ATTACHMENT A**

**DEC/PEC CUSTOMER INFORMATION DISCLOSURE AUTHORIZATION**

For Disclosure to Affiliates:

DEC's/PEC's Affiliates offer products and services that are separate from the regulated services provided by DEC/PEC. These services are not regulated by the North Carolina Utilities Commission or the Public Service Commission of South Carolina. These products and services may be available from other competitive sources.

The Customer authorizes DEC/PEC to provide any data associated with the Customer account(s) residing in any DEC/PEC files, systems or databases **[or specify specific types of data]** to the following Affiliate(s) \_\_\_\_\_ . DEC/PEC will provide this data on a non-discriminatory basis to any other person or entity upon the Customer's authorization.

For Disclosure to Nonpublic Utility Operations:

DEC/PEC offers optional, market-based products and services that are separate from the regulated services provided by DEC/PEC. These services are not regulated by the North Carolina Utilities Commission or the Public Service Commission of South Carolina. These products and services may be available from other competitive sources.

The Customer authorizes DEC/PEC to use any data associated with the Customer account(s) residing in any DEC/PEC files, systems or databases **[or specify types of data]** for the purpose of offering and providing energy-related products or services to the Customer. DEC/PEC will provide this data on a non-discriminatory basis to any other person or entity upon the Customer's authorization.

## **EXHIBIT 4a**



Rev: 09/06/2000

#### DUKE ENERGY DATA DISCLOSURE AUTHORIZATION

The undersigned customer (the "Customer") of Duke Energy hereby requests that Duke Energy provide to \_\_\_\_\_ (legal name of energy-related services provider) the confidential data described below, and consents to the disclosure of such data.

If the data is being furnished to an Affiliate of Duke Energy, the Customer acknowledges that Duke Energy has advised it that, so long as the Customer gives permission by signing a Data Disclosure Authorization, such data will be furnished on a non-discriminatory basis to any provider of energy-related services, whether or not such provider is an Affiliate of Duke Energy, and that Duke Energy has advised it that such energy-related services may be available from other non-affiliated suppliers of energy-related services, at the Customer's request. The Customer recognizes that Duke Energy may incur certain costs in assembling, compiling and/or furnishing the described confidential data and that if so, Duke will bill the requesting party to recover any such costs incurred. The Customer also recognizes that Duke Energy is under no obligation to release such information to any requesting party until that person, whether an Affiliate or non-affiliate, reimburses Duke for its costs.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Customer: \_\_\_\_\_

(Legal Company Name of Customer)

By: \_\_\_\_\_  
(Authorized Customer Signature)

(Typed: ) \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Duke Account Manager: \_\_\_\_\_

## **EXHIBIT 4b**



Rev: 8/11/11

City of Durham –Energy Retrofits

#### DUKE ENERGY DATA DISCLOSURE AUTHORIZATION

The undersigned customer (the "Customer") of Duke Energy hereby requests that Duke Energy provide to the City of Durham the confidential data described below, and consents to the disclosure of such data.

If the data is being furnished to an Affiliate of Duke Energy, the Customer acknowledges that Duke Energy has advised it that, so long as the Customer gives permission by signing a Data Disclosure Authorization, such data will be furnished on a non-discriminatory basis to any provider of energy-related services, whether or not such provider is an Affiliate of Duke Energy, and that Duke Energy has advised it that such energy-related services may be available from other non-affiliated suppliers of energy-related services, at the Customer's request.

Data Description – monthly energy consumption and cost data not to extend beyond June 1, 2014.

Customer:

\_\_\_\_\_  
(Legal Name of Customer)

Address:

\_\_\_\_\_

By: \_\_\_\_\_

(Authorized Customer Signature)

(Printed:) \_\_\_\_\_

Date: \_\_\_\_\_

Duke Account Number: \_\_\_\_\_

## **EXHIBIT 5**



## COLORADO DEPARTMENT OF REGULATORY AGENCIES

### Public Utilities Commission

#### 4 CODE OF COLORADO REGULATIONS (CCR) 723-3

#### PART 3

#### RULES REGULATING ELECTRIC UTILITIES

\* \* \* \* \*

[Indicates omission of unaffected rules]

#### 3001. Definitions.

The following definitions apply throughout this Part 3, except where a specific rule or statute provides otherwise. In addition to the definitions stated here, the definitions found in the Public Utilities Law apply to these rules. In the event of a conflict between these definitions and a statutory definition, the statutory definition shall apply.

- (a) "Affiliate" of a public utility means a subsidiary of a public utility, a parent corporation of a public utility, a joint venture organized as a separate corporation or partnership to the extent of the individual public utility's involvement with the joint venture, a subsidiary of a parent corporation of a public utility or where the public utility or the parent corporation has a controlling interest over an entity.
- (b) "Aggregated data" means reports aggregating customer data, alone or in combination with other data.
- (bc) "Applicant for service" means a person who applies for utility service and who either has taken no previous utility service from that utility or has not taken utility service from that utility within the most recent 30 days.
- (ed) "Average error" means the arithmetic average of the percent registration at light load and at heavy load, giving the heavy load registration a weight of four and the light load registration a weight of one.
- (dg) "Basis point" means one-hundredth of a percentage point (100 basis points = 1 percent).
- (fe) "Benefit of service" means the use of utility service by each person of legal age who resides at a premises to which service is delivered and who is not registered with the utility as the customer of record.
- (fg) "Commission" means the Colorado Public Utilities Commission.

- (h) "Contracted agent" means any third-party entity that has contracted with a utility in compliance with rule 3029 to assist in the provision of regulated utility services (e.g., an affiliate or vendor).
- (gi) "Customer" means any person who is currently receiving utility service. Any person who moves within a utility's service territory and obtains utility service at a new location within 30 days shall be considered a "customer." Unless stated in a particular rule, "customer" applies to any class of customer as defined by the Commission or by utility tariff.
- (i) "Customer data" means customer-specific data or information that: (1) is collected from the electric meter by the utility and stored in its systems (e.g., kWh, kW, voltage, VARs and power factor); (2) is received by the utility from the customer identifying whether they participate in regulated utility programs, such as renewable energy, demand-side management, load management, and energy efficiency; and (3) information other than personal information that is shown on bills issued to customers for metered service furnished.
- (hk) "Creep" means that, with all load wires disconnected, a meter's moving element makes one complete revolution in ten minutes or less.
- (il) "Distribution extension" is any construction of distribution facilities, including primary and secondary distribution lines, transformers, service laterals, and appurtenant facilities (except meters and meter installation facilities), necessary to supply service to one or more additional customers.
- (jm) "Distribution facilities" are those lines designed to operate at the utility's distribution voltages in the area as defined in the utility's tariffs including substation transformers that transform electricity to a distribution voltage and also includes other equipment within a transforming substation which is not integral to the circuitry of the utility's transmission system.
- (kp) "Energy assistance organization" means the nonprofit corporation established for low-income energy assistance pursuant to § 40-8.5-104, C.R.S.
- (lq) "Heavy load" means not less than 60 percent, but not more than 100 percent, of the nameplate-rated capacity of a meter.
- (mp) "Informal complaint" means an informal complaint as defined and discussed in the Commission's Rules Regulating Practice and Procedure.
- (ng) "Light load" means approximately five to ten percent of the nameplate-rated capacity of a meter.
- (oj) "Load" means the power consumed by an electric utility customer over time (measured in terms of either demand or energy or both).
- (ps) "Local office" means any Colorado office operated by a utility at which persons may make requests to establish or to discontinue utility service. If the utility does not operate an office in Colorado, "local office" means any office operated by a utility at which persons may make requests to establish or to discontinue utility service in Colorado.
- (qt) "Main service terminal" means the point at which the utility's metering connections terminate. Main service terminals are accessed by removing the meter dial face from the meter housing.

- (fu) "MVA" means mega-volt amperes and is the vector sum of the real power and the reactive power.
- (sy) "Output" means the energy and power produced by a generation system.
- (tw) "Past due" means the point at which a utility can affect a customer's account for regulated service due to non-payment of charges for regulated service.
- (ux) "Principal place of business" means the place, in or out of the State of Colorado, where the executive or managing principals who directly oversee the utility's operations in Colorado are located.
- (vy) "Reference standard" means suitable indicating electrical equipment permanently mounted in a utility's laboratory and used for no purpose other than testing rotating standards.
- (wz) "Regulated charges" means charges billed by a utility to a customer if such charges are approved by the Commission or contained in a tariff of the utility.
- (xaa) "Rotating standard" means a portable meter used for testing service meters.
- (ybb) "RUS" means the Rural Utilities Service of the United States Department of Agriculture, or its successor agencies.
- (zcc) "Security" includes any stock, bond, note, or other evidence of indebtedness.
- (aadd) "Service connection" is the location on the customer's premises/facilities at which a point of delivery of power between the utility and the customer is established. For example, in the case of a typical residential customer served from overhead secondary supply, this is the location at which the utility's electric service drop conductors are physically connected to the customer's electric service entrance conductors.
- (bbee) "Staff" means Staff of the Public Utilities Commission.
- (ff) "Standard customer data" means customer data actively maintained in its systems by a utility in its ordinary course of business. If actively maintained in its systems in the ordinary course of business, such data shall be sufficient to allow customers to understand their usage at level of detail commensurate with the meter or network technology deployed by the utility to serve the customer's premise.
- (gg) "Third-party" means any entity other than the customer of record, the utility serving such customer, or a contracted agent, that requests authorization from the customer for access to customer data from the utility.
- (eehh) "Transmission extension" is any construction of transmission facilities and appurtenant facilities, including meter installation facilities (except meters), which is connected to and enlarges the utility's transmission system and which is necessary to supply transmission service to one or more additional customers.

- (ddj) "Transmission facilities" are those lines and related substations designed and operating at voltage levels above the utility's voltages for distribution facilities, including but not limited to related substation facilities such as transformers, capacitor banks, or breakers that are integral to the circuitry of the utility's transmission system.
- (eej) "Unregulated charges" means charges that are billed by a utility to a customer and that are not regulated or approved by the Commission, are not contained in a tariff filed with the Commission, and are for service or merchandise not required as a condition of receiving regulated utility service.
- (#kk) "Utility" means any public utility as defined in § 40-1-103, C.R.S., providing electric, steam, or associated services in the state of Colorado.
- (ggj) "Utility service" or "service" means a service offering of a public utility, which service offering is regulated by the Commission.

\* \* \* \* \*

[indicates omission of unaffected rules]

3011. – ~~309925~~. [Reserved].

#### **DATA PRIVACY**

##### **3026. Disclosure of Customer Data by a Utility.**

- (a) A utility is only authorized to use customer data to provide regulated utility service in the ordinary course of business.
- (b) A utility shall not disclose customer data unless such disclosure conforms to these rules, except as required by law or to comply with Commission rule. Illustratively, this includes responses to requests of the Commission, warrants, subpoenas, court orders, or as authorized by § 16-15.5-102, C.R.S.
- (c) A utility shall include in its tariffs a description of standard and non-standard customer data that the utility is able to provide to the customer or to any third-party recipient to whom the customer has authorized disclosure of the customer's data within the utility's technological and data capabilities. At a minimum, the utility's tariff will provide the following:
  - (I) A description of standard customer data and non-standard customer data (billing determinants or other collected data) and the frequency of customer data updates that will be available (annual, monthly, daily, etc.);
  - (II) The method and frequency of customer data transmittal and access available (electronic, paper, etc.) as well as the security protections or requirements for such transmittal;
  - (III) A timeframe for processing the request;
  - (IV) Any rate associated with processing a request for non-standard customer data; and

(V) Any charges associated with obtaining non-standard customer data.

- (d) As part of basic utility service, a utility shall provide to a customer the customer's standard customer data, access to the customer's standard customer data in electronic machine-readable form, in conformity with nationally recognized open standards and best practices, in a manner that ensures adequate protections for the utility's system security and the continued privacy of the customer data during transmission. Such access shall be provided without additional charge.
- (e) A utility shall provide to any third-party recipient to whom the customer has authorized disclosure of the customer's customer data, access to the customer's standard customer data in electronic machine-readable form, in conformity with nationally recognized open standards and best practices, in a manner that ensures adequate protections for the utility's system security and the continued privacy of the customer during transmission. Such access shall be provided without additional charge to the customer or the third-party recipient.
- (f) Nothing in these rules shall limit a customer's right to provide his or her customer data to anyone.
- (g) A utility and each of its directors, officers and employees that discloses customer data pursuant to a customer's authorization in accordance with these data privacy rules shall not be liable or responsible for any claims for loss or damages resulting from the utility's disclosure of customer data.

3027. Customer Notice.

- (a) A utility shall annually provide written notice to its customers complying with this rule and conspicuously post on its website notice of its privacy and security policies governing access to and disclosure of customer data and aggregated data to third-parties. This notice shall clearly advise customers that their customer data will not be disclosed to third-parties, except: (1) as necessary to provide regulated utility services to the customers, (2) as provided in paragraph 3026(b), or (3) pursuant to the authorization given by the customer in accordance with these rules.
- (b) The notice shall advise customers that their customer data can be used to obtain insight into their activities within the premises receiving service. The notice shall also explain how the customer data collected may reveal information about the way customers use energy at their premises. The notice shall advise the customers to consider the proposed scope, purpose, and use of customer data prior to authorizing the disclosure of customer data to third-parties.
- (c) The contents of the notice required by this rule shall:
- (I) Include a description of customer data;
  - (II) Explain the frequency with which the utility collects and stores customer data and the frequency that the customer can obtain customer data;
  - (III) Inform customers that the privacy and security of their customer data will be protected by the utility while in its possession;

- (IV) Explain that customers can access their standard customer data, as identified by the utility's tariff, without additional charge;
- (V) Explain that, with the exception of the data disclosures provided in rule 3026(b), customers have an expectation of privacy for their customer data.
- (VI) Describe the utility's policies regarding how customers can authorize access and disclosure of their customer data to third-parties not falling within the exceptions outlined in paragraph 3026(b). With regard to such third party data disclosure, the notice shall:
  - (A) Inform customers that declining a request for disclosure of customer data to a third-party will not affect the provision of utility service that the customer receives from the utility; and
  - (B) Explain that any customer consent for access to, disclosure of, or use of a customer's customer data by a third-party may be terminated or limited by the customer of record at any time and inform the customers of the process for doing so.
- (VII) Inform customers that customer data may be used to create aggregated data, and that the utility may provide aggregated data to third-parties, subject to its obligation under paragraph 3031(b);
- (VIII) Be viewable on-line and printed in 12 point or larger font;
- (IX) Be sent either separately or included as an insert in a regular monthly bill conspicuously marked and stating clearly that important information on the utility's privacy practices is contained therein;
- (X) Be printed in English and any specific language or languages other than English where the utility's service territory contains a population of at least 30 percent who speak a specific language other than English as their primary language as determined by the Commission using the latest U.S. Census information; and<sup>1</sup>
- (XI) Provide a customer service phone number and web address where customers can direct additional questions or obtain additional information regarding their customer data, the disclosure of customer data or aggregated data, or the utility's privacy policies and procedures with respect to customer data or aggregated data.

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<sup>1</sup> Errata C11-1335-E corrected rule 3027, by removing rule 3027(c)(XI) and renumbering rule 3027(c)(XII) as rule (XI), and connecting rules (X) and new rule (XI) with "and".

3028. Customer Consent Form for the Disclosure of their Customer Data to Third-Party Recipients by a Utility.

(a) A utility shall make available a consent to disclose customer data form, prescribed and supplied by the Commission, to any customer or third-party upon request. The form shall be provided and made available in paper and electronic form for use in obtaining customer consent to disclose customer data. The contents of the consent to disclose customer data form must:

(I) Describe the customer's rights under subparagraph 3027(c)(V); and

(II) Provide spaces for the following information regarding the third-party recipient to be populated by that third-party recipient on the consent to disclose customer data form:

(A) The name, including trade name if applicable, physical address, mailing address, e-mail address, and telephone number;

(B) The name, mailing address, e-mail address, and telephone number of the third-party recipient's data custodian;

(C) The name, mailing address, e-mail address, and telephone number of the third-party recipient's Colorado agent for service of process; and

(D) A statement describing the third-party recipient's business structure (corporation, limited liability company, partnership, sole proprietorship, etc).

(i) If the third-party recipient is a corporation: the name of the state in which it is incorporated; the location of its principal office, if any, in Colorado; the names of its directors and officers; and a certificate of good standing issued by the Secretary of State authorizing it to do business in Colorado, certified within six months prior to the submission of the consent to disclose customer data form.

(ii) If the third-party recipient is a limited liability company: the name of the state in which it is organized; the complete mailing address and physical address of its principal office; the name of its managers; and a certificate of good standing issued by the Secretary of State authorizing it to do business in Colorado, certified within six months prior to the submission of the consent to disclose customer data form.

(iii) If the third-party recipient is a partnership: the names, titles, and addresses of all general and limited partners and a copy of the partnership agreement establishing the partnership and all subsequent amendments.

(III) State the uses of the data for which the customer is allowing disclosure;

(IV) State the purposes of the data collection;

(V) State the date(s) of disclosure;

(VI) State the description of the data disclosed;

(VII) State that the consent is valid until terminated;

(VIII) State that the customer must notify the utility service provider in writing (electronically or nonelectronically) to terminate the consent including appropriate utility contact information;

(IX) State any additional terms except an inducement for the customer's disclosure;

(X) Provide notice to the customer that the utility shall not be responsible for monitoring or taking any steps to ensure that the third-party to whom the data is disclosed is maintaining the confidentiality of the data or using the data as intended by the customer; and

(b) A utility may make available an electronic customer consent process for disclosure of customer data to a third-party (e.g. a utility controlled web portal) that authenticates the customer identity. The contents of the electronic consent process must generally follow the format of the model consent to disclose customer data form, be clear, and include the elements to be provided pursuant to paragraph (a) of this rule. Such process may not include an inducement for disclosure by the customer.

(c) A utility may make available an in-person consent process for disclosure of customer data to a third party that authenticates the customer identity. A customer of a utility shall complete a Customer Consent Form at an office of the utility and the customer shall provide adequate identification, including but not limited to, a valid picture identification and customer account information.<sup>2</sup>

(d) The consent to disclose customer data form may be submitted to the utility through paper or electronic methods.

**3029. Contracted Agent Access to Customer Data from a Utility.**

(a) A utility may disclose customer data to a contracted agent provided that the contract meets the following minimum requirements:

(i) Implement and maintain reasonable data security procedures and practices appropriate to the private nature of the information to protect the customer data from unauthorized access, destruction, use, modification, or disclosure. These data security procedures and practices shall be equal to or greater than the data privacy and security policies and procedures used by the utility internally to protect customer data;

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<sup>2</sup> Errata C11-1335-E corrected the second sentence of rule 3028(c), making mandatory the completion of a Customer Consent Form, along with provision of customer identification and account information, but without reference to requirement of a notarized signature.



- (II) Use customer data solely for the purpose of the contract, and prohibit the use of customer data for a secondary commercial purpose not related to the purpose of the contract without first obtaining the customer's consent as provided for in these rules;
- (III) Destroy any customer data that is no longer necessary for the purpose for which it was transferred; and
- (IV) Execute a non-disclosure agreement with the utility.

- (b) The utility shall maintain records of the disclosure of customer data to contracted agents for a minimum of three years. Such records shall include all contracts with the contracted agent and executed non-disclosure agreements.

**3030. Third-Party Access to Customer Data from a Utility.**

- (a) Except as outlined in paragraphs 3026(b) and 3029(a), a utility shall not disclose customer data to any third-party unless the customer or a third-party acting on behalf of a customer submits a paper or electronic signed consent to disclose customer data form that has been executed by the customer of record.<sup>3</sup>
- (b) Incomplete or non-compliant consent to disclose customer data forms are not valid and shall be rejected by the utility.
- (c) The utility shall maintain records of all of the disclosures of customer data to third-party requestors. Such records shall include a copy of the customer's signed consent to disclose customer data form, all identifying documentation produced by the third-party requestor, the customer's agreed upon terms of use, the date(s) and frequency of disclosure, and a description of the customer data disclosed.
- (d) The utility shall maintain records of customer data disclosures for a minimum of three years and shall make the records of the disclosure of a customer's customer data available for review by the customer within five business days of receipt a paper or electronic request from the customer, or at such greater time as is mutually agreed between the utility and the customer.

**3031. Requests for Aggregated Data Reports from a Utility**

- (a) A utility shall not disclose aggregated data unless such disclosure conforms to these rules.
- (b) In aggregating customer data to create an aggregated data report, a utility must take steps to ensure the report is sufficiently anonymous in its aggregated form so that any individual customer data or reasonable approximation thereof cannot be determined from the aggregated amount. At a minimum, a particular aggregation must contain: (1) at least fifteen customers or premises, and (2) within any customer class, no single customer's customer data or premise associated with a single customer's customer data may comprise 15 percent or more of the total customer data aggregated per customer class to generate the aggregated data report (the "15/15 Rule").

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<sup>3</sup> Errata C11-1335-E corrected rule 3030(a), by removing the text: "and any data f[r]eeze for the service address has been released".

Notwithstanding the 15/15 Rule, the utility shall not be required to disclose aggregated data if such disclosure would compromise the individual customer's privacy or the security of the utility's system.

- (c) If a single customer's customer data or premise associated with a single customer's customer data is 15 percent or more of the total aggregated customer data per customer class used to generate the aggregated data report requested, the utility will notify the requestor that the aggregated data, as requested, cannot be disclosed and identify the reason(s) the request was denied. The requestor shall be given an opportunity to revise its aggregated data request in order to address the identified concerns. An aggregated data request may be revised by expanding the number of customers or premise accounts in the request, expanding the geographic area included in the request, combining different customer classes or rate categories, or other applicable means of aggregating.
- (d) A utility shall include in its tariffs a description of standard and non-standard aggregated data reports available from the utility to any requestor. At a minimum, the utility's tariff shall provide the following:
- (I) A description of standard and non-standard aggregated data reports available from the utility including all available selection parameters (customer data or other data);
  - (II) The frequency of data collection (annual, monthly, daily, etc.);
  - (III) The method of transmittal available (electronic, paper, etc.) and the security protections or requirements for such transmittal;
  - (IV) The charge for providing a standard aggregated data report or the hourly charge for compiling a non-standard aggregated data report;
  - (V) The timeframe for processing the request; and
  - (VI) A request form for submitting a data request for aggregated data reports to the utility identifying any information necessary from the requestor in order for the utility to process the request.
- (e) If a utility is unable to fulfill an aggregated data report request because it does not have and/or does not elect to or cannot obtain all of the data the requestor wishes to include in the aggregated data report, then the utility may contract with a contracted agent to include the additional data, along with the customer data in the utility's possession, to generate an aggregated data report.
- (f) A utility and each of its directors, officers and employees that discloses aggregated data as provided in these data privacy rules shall not be liable or responsible for any claims for loss or damages resulting from the utility's disclosure of aggregated data.

304432. – 3099.

[Reserved].

\* \* \* \* \*

[indicates omission of unaffected rules]

**3976. Regulated Electric Utility Rule Violations, Civil Enforcement, and Civil Penalties.**

An admission to or Commission adjudication for liability for an intentional violation of the following may result in the assessment of a civil penalty of up to \$2,000.00 per offense. Fines shall accumulate up to, but shall not exceed, the applicable statutory limits set in § 40-7-113.5, C.R.S.

Citation	Description	Maximum Penalty Per Violation
	Articles 1-7 of Title 40, C.R.S.	\$2000
	Commission Order	\$2000
Rule 3005(a)-(c):(f)	Records and Record Retention	\$2000
<u>Rule 3026(a)</u>	<u>Collection and Use of Customer Data</u>	<u>\$1000</u>
<u>Rule 3026(b):(e)</u>	<u>Disclosure of Customer Data</u>	<u>\$2000</u>
<u>Rule 3026(c)</u>	<u>Tariff</u>	<u>\$1000</u>
<u>Rule 3026(d)</u>	<u>Disclosure of Customer Data</u>	<u>\$1000</u>
<u>Rule 3027(a)</u>	<u>Customer Notice</u>	<u>\$1000</u>
<u>Rule 3028(a):(b)</u>	<u>Consent Form</u>	<u>\$1000</u>
<u>Rule 3029(a)</u>	<u>Disclosure of Customer Data</u>	<u>\$2000</u>
<u>Rule 3029(b)</u>	<u>Records</u>	<u>\$1000</u>
<u>Rule 3030(a)</u>	<u>Disclosure of Customer Data</u>	<u>\$2000</u>
<u>Rule 3029(b)-(d)</u>	<u>Consent and Records</u>	<u>\$1000</u>
<u>Rule 3031(a)</u>	<u>Disclosure of Aggregated Data</u>	<u>\$2000</u>
<u>Rule 3031(c)</u>	<u>Tariff</u>	<u>\$1000</u>
<sup>4</sup>		

<sup>4</sup> Errata C11-1335-E corrected the first table of Rule 3976, by removing the \$1000 penalty for (repealed) Rule 3032 Data Freeze.

Rule 3100(a)	Obtaining a Certificate of Public Convenience and Necessity for a Franchise	\$2000
Rule 3101(a)	Obtaining a Certificate of Public Convenience and Necessity or Letter of Registration to Operate in a Service Territory	\$2000
Rule 3102(a)	Obtaining a Certificate of Public Convenience and Necessity for Facilities	\$2000
Rule 3103(a),(c),(d)	Amending a Certificate of Public Necessity for Changes in Service Territory or Facilities	\$2000
Rule 3108(a),(c)	Keeping a Current Tariff on File with the Commission	\$2000
Rule 3109	Filing a New or Changed Tariff with the Commission	\$2000
Rule 3110(b),(c)	Filing an Advice Letter to Implement a Tariff Change	\$2000
Rule 3200(a),(b)	Construction, Installation, Maintenance and Operation of Facilities in Compliance with Accepted Engineering and Industry Standards	\$2000
Rule 3204	Reporting Incidents Resulting in Death, Serious Injury, or Significant Property Damage	\$2000
Rule 3210	Line Extensions	\$2000
Rule 3251	Reporting Major Events	\$2000
Rule 3252	Filing a Report on a Major Event with the Commission	\$2000
Rule 3303(a)-(i)	Meter Testing	\$2000
Rule 3306	Record Retention of Tests and Meters	\$2000
Rule 3309	Provision of Written Documentation of Readings and Identification of When Meters Will be Read	\$2000
Rule 3401	Billing Information, Procedures, and Requirements	\$2000
Rule 3603	Resource Plan Filing Requirements	\$2000

Rule 3654(a),(d)	Renewable Energy Standards	\$2000
Rule 3657(a)	QRU Compliance Plans	\$2000
Rule 3662	Annual Compliance Reports	\$2000
Rule 3803(c)	Master Meter Exemption Requirements	\$2000

Citation	Description	Maximum Penalty Per Violation
Rule 3004(b)-(f)	Disputes and Informal Complaints	\$1000
Rule 3202(a),(b),(f),(g)	Maintaining a Standard Voltage and Frequency	\$1000
Rule 3203(a),(b)	Trouble Report Response, Interruptions and Curtailments of Service	\$1000
Rule 3405	Provision of Service, Rate, and Usage Information to Customers	\$1000
Rule 3406	Provision of Source Information to Customers	\$1000
Rule 3253	Filing a Supplemental Report on a Major Event with the Commission	\$1000

Citation	Description	Maximum Penalty Per Violation
Rule 3208(a)-(c)	Poles	\$500
Rule 3403(a)-(q);(s)	Applications for Service, Customer Deposits, and Third Party Guarantees	\$500
Rule 3658	Standard Rebate Offer	\$500

Citation	Description	Maximum Penalty Per Violation
Rule 3006(a),(b),(e)-(m)	Annual Reporting Requirements	\$100
Rule 3304	Scheduled Meter Testing	\$100
Rule 3305	Meter Testing Upon Request	\$100
Rule 3402(a),(c),(d)	Meter and Billing Error Adjustments	\$100
Rule 3404(a)-(f)	Availability of Installation Payments to Customers	\$100
Rule 3407	Discontinuance of Service	\$100
Rule 3408(a)-(g);(i)	Notice of Discontinuation of Service	\$100
Rule 3409	Restoration of Service	\$100
Rule 3411(c)(IV),(d)(I),(d)(II),(e)	Low-Income Energy Assistance Act	\$100
Rule 3614	Filing of Annual Reports	\$100

3977. – 3999. [Reserved].

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[indicates omission of unaffected rules]