

## **BEFORE**

### **THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of	)	
Duke Energy Ohio, Inc., to Establish	)	Case No. 13-1539- EL-ESS
Minimum Reliability Performance	)	
Standards Pursuant to Chapter 4901:1-	)	
10, Ohio Administrative Code.	)	

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### **REPLY COMMENTS OF DUKE ENERGY OHIO, INC.**

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#### **I. Introduction**

Duke Energy Ohio, Inc. (Duke Energy Ohio or Company) submitted an application in this proceeding for approval of proposed reliability standards to the Public Utilities Commission of Ohio, (Commission) on June 28, 2013. The Office of the Ohio Consumers' Counsel, (OCC) moved to intervene and filed comments on January 6, 2014. The Staff of the Public Utilities Commission of Ohio, (Staff) submitted comments on January 21, 2014. Pursuant to the procedural schedule, Duke Energy Ohio submits the following comments in reply to those of the Staff and OCC.

#### **II. Comments in Response to the Staff**

##### **1. Comments Reliability Survey**

Staff comments that the Company's reliability survey that was administered in accordance with Rule 4901:1-10-10 (B)(4)(b), O.A.C. does not have the requisite sample size. Staff further comments that the Company should comply with all of Staff's reliability survey guidelines. Duke Energy Ohio notes that neither the rule, nor the guidelines published on the Commission website explicitly require a particular sample size. The Company was working with Staff to ensure correct sample size and will continue to do so. The Company agrees to submit a customer perception survey with Staff's requisite sample size in the future.

## **2. A higher Customer Average Interruption Duration Index Standard**

Staff observes that the Company experienced a decline in Customer Average Interruption Duration Index (CAIDI) performance during the two of the last three years and that the Company has completed its Distribution Automation (DA) program for 2013 with no firm commitment to implement additional DA enhancement programs. As a result, Staff recommends that the Commission not approve a request for a higher CAIDI standard.

Duke Energy Ohio's CAIDI standard is not based solely on the impact of SmartGrid DA improvements, but is based on an improving System Average Interruption Frequency Index (SAIFI) trend over time due to implementation of all reliability improvement programs. The Company's ongoing work to enhance reliability is not limited to SmartGrid deployment.

Also, annual variations in the actual results are mainly driven by variations in non-Major Event Day, (non-MED) weather. Duke Energy Ohio programs are focused on reducing SAIFI and therefore will decrease SAIFI at a faster rate than SAIDI and therefore CAIDI will increase as a mathematical certainty. Duke Energy Ohio respectfully disagrees with this Staff recommendation.

## **3. Average Historical Performance**

The Company, in its Application in this proceeding proposed a new standard for performance based upon a trend-line projection. Staff argues that this proposal is inconsistent with that prescribed by Staff in its "Guidelines for Reliability Standards Applications which appear at the end of Rule 4901:1-10-10 and on the Commission's website. Staff's Guidelines state that service reliability should be calculated by averaging historical performance and using the average as a baseline for adjustments that would result in a proposed standard.

Duke Energy Ohio disagrees with this recommended Staff methodology. This recommended methodology results in a standard that is flawed for either an improving or deteriorating trend-line. For an improving trend line, using a five year average method results in the setting of a standard at a level that is achieved two to three years in the past which makes the probability of success greater going forward. For a deteriorating trend-line, using a five year average results in setting a standard again, at a level that is achieved two or three years in the past, which makes the probability of success lesser going forward. The Staff's methodology also does not account for the annual variations due to non-MED weather. Duke Energy Ohio respectfully submits that its methodology for setting a standard is statistically and practically correct.

#### **4. Accuracy of Data**

Staff argues that Duke Energy Ohio should use the latest data available to more accurately reflect performance. Duke Energy Ohio agrees.

#### **5. Calculation of Historic Performance**

Staff observes that Duke Energy Ohio missed its CAIDI standard in 2010 and recommends adjustment of the calculation used to establish new standards to remove the excess minutes in order to perform the calculation. Duke Energy Ohio submits that this is statistically invalid and nonsensical and inconsistent with Institute of Electrical and Electronics Engineers (IEEE) standards for calculating electric distribution reliability indices. In order to calculate standards, one cannot simply remove data that is viewed as aberrant for some reason. This would be akin to taking a customer survey and excluding all the negative responses. This is not logical nor statistically acceptable. Actual annual performance is important in defining standard deviations in order to understand the deviation that is possible from a set standard. Capping

actual results at the standard corrupts the data used to calculate a going forward standard. Duke Energy Ohio respectfully disagrees with this Staff recommendation.

#### **6. Calculating CAIDI on the most recent five-year historical performance**

Staff recommends that the Company's CAIDI standard be based upon the five years including 2009 through 2013. Duke Energy Ohio disagrees with this recommendation in that reliability standards should be based on a trendline that includes as much data as is available in order to mitigate the impact of annual variations due to non-MED weather. Additionally, it is axiomatic that more data to establish a trend-line will always yield a more accurate result than less data. Duke Energy Ohio started its reliability improvement programs in early 2006 and therefore the years 2006 through 2013 are used internally and should be used by the Staff as this yields a more statistically valid result.

#### **7. Setting the CAIDI Standard**

Staff has opted to recommend a standard that includes a "plus or minus" factor of variation of ten percent. Staff does not explain or provide any statistical rationale for its choice of ten percent as a reasonable variation. The statistically appropriate way to set a minimum and maximum level around a standard is to calculate the standard deviation of the data, to determine what probability of success/failure is optimal, and then using the appropriate multiple of the standard deviation, added to and subtracted from the standard to provide minimum and maximum levels. For example, using an eighty percent confidence of results being between the minimum and maximum standard results in a "plus or minus" factor of 1.282 standard deviations.

## **8. CAIDI standard calculation**

As explained above, Duke Energy Ohio respectfully disagrees with the calculations recommended by Staff to reach an appropriate CAIDI standard. Setting an artificially lower CAIDI standard that the current trend line demonstrates, increases the probability of actual performance being worse than the standard and is statistically invalid for the reasons set forth above.

## **III. Comments in Response to the Office of the Ohio Consumers' Counsel**

### **1. Introduction**

In the introduction to its comments, OCC states that Duke Energy Ohio is seeking to convince the Commission that it should not be required to reduce the frequency of electric outages experienced by its customers. This is a very troubling statement in light of the Company's historic reliability record and its ongoing system improvements. These comments are particularly troubling in that they disregard the facts entirely and suggest reconsideration of matters settled in other dockets by stipulation where OCC is a party to the stipulation. OCC's comments overlook the mathematics of the relevant calculations. Moreover, OCC intentionally misstates that Duke Energy Ohio is unwilling or unable to commit to quantified reductions in the frequency of customer interruptions and recommends that the Commission revisit costs and benefits of investment in grid modernization. These comments unfairly characterize the record, overlook the Company's history of improvement and compliance and disregard commitments made in stipulations in other cases.

### **2. Continuation of SAIFI**

In Case No. 08-920-EL-SSO, *et al.*, most of the parties that intervened in those proceedings, including OCC, reached a stipulation that was adopted and approved by the

Commission. In that stipulation, the parties specifically agreed that the Company would meet standards for SAIFI that were specified and continued through 2015. Duke Energy Ohio has met this standard every year since the beginning of its SmartGrid deployment in 2009. In Case No. 10-2326-GE-RDR, the parties that intervened in that proceeding, including OCC, agreed to a stipulation that included calculation of the netting of benefits against costs that continues through 2014. The benefits recognized and agreed to by Duke Energy Ohio, OCC and others include benefits resulting from operational savings as calculated by the Staff's consultant, MetaVu. OCC argues that "the inability of Duke to quantify the impact of grid modernization spending into tangible reliability standards benefits for customers" is problematic. However, Duke Energy Ohio did exactly that in the SmartGrid mid-term review case. Despite the stipulations that were agreed to by OCC, it now appears that OCC seeks to renegotiate or re-trade its position in these cases. Duke Energy Ohio respectfully disagrees with these recommendations.

### **3. Customer perception survey**

OCC raises a number of issues with respect to the Company's customer perception survey. OCC argues that the results of the survey were not considered when the Company submitted its application. This is incorrect. The Company engages in a continuous improvement program for system reliability that is enhanced by the deployment of SmartGrid related distribution automation. The results of the customer survey are of importance to the Company and are most certainly considered in relation to the Company's ongoing system improvement planning.

### **4. Reliability Performance Standards**

OCC argues that the Company's should not be permitted to continue the SAIFI standards contained in a Stipulation to which OCC was signatory. As stated above, OCC has committed

to accepting these standards through 2015 and should not be advocating for something different in this proceeding. Moreover, OCC's review of data on page ten of its comments indicates fundamental misunderstanding of reliability indices and what causes annual variations in these indices.

With respect to CAIDI, OCC correctly notes that Duke Energy Ohio's CAIDI cannot be established at a fixed level until installation of grid modernization programs are completed in 2015. The application of "one size fits all" rules to Duke Energy Ohio are impossible as Duke Energy Ohio has undergone a significant transformation of its distribution system over the past five years. The OCC's data, in its comments establishes that the system is greatly improved as a result. However, CAIDI will continue to go up, and not down as Duke Energy Ohio continues to improve SAIFI over time. Numerically, this is impossible to change, absent negating the improvements made to date.

#### **5. Use of Actual Performance Data**

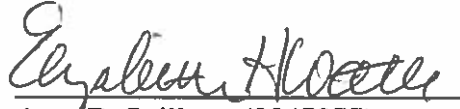
OCC argues that Duke Energy Ohio is proposing a CAIDI Standard that is out-of-line with the historical performance of the system. In fact Duke Energy Ohio is proposing a CAIDI standard that is based on the historical trend-line of the system performance including a statistically valid "plus or minus" variation based on the appropriate standard deviations to achieve the desired probability of performance being between a minimum & maximum level. This method takes into account the annual variations that occur due to non-MED weather.

#### **IV. Conclusion**

For the foregoing reasons, and those set forth in the Company's Amended Application, Duke Energy Ohio respectfully requests that the Commission approve its proposed SAIFI and CAIDI standards as set forth therein.

Respectfully submitted,

Duke Energy Ohio, Inc.

A handwritten signature in dark ink, appearing to read "Amy B. Spiller", is written over a horizontal line.

Amy B. Spiller (0047277)

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## CERTIFICATE OF SERVICE

I hereby certify that a true and accurate copy of the foregoing was delivered via U.S. mail (postage prepaid), personal, or electronic mail delivery on this the 7<sup>th</sup> day of February, 2014, to the following:

  
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