OCC EXHIBIT NO

BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of)	
Duke Energy Ohio for Authority to)	
Establish a Standard Service Offer)	
Pursuant to Section 4928.143, Revised)	Case No. 14-841-EL-SSO
Code, in the Form of an Electric Security)	
Plan, Accounting Modifications and)	
Tariffs for Generation Service.)	
In the Matter of the Application of)	
Duke Energy Ohio for Authority to)	Case No. 14-842-EL-AAM
Amend its Certified Supplier Tariff,)	
P.U.C.O. No. 20.)	

of
JAMES D. WILLIAMS

On Behalf of The Office of the Ohio Consumers' Counsel

10 West Broad Street, Suite 1800 Columbus, Ohio 43215-3485

September 26, 2014

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1	I.	INTRODUCTION
2		
3	<i>Q1</i> .	PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND POSITION.
4	A1.	My name is James D. Williams. My business address is 10 West Broad Street,
5		18 th Floor, Columbus, Ohio, 43215-3485. I am employed by the Office of the
6		Ohio Consumers' Counsel ("OCC") as a Senior Consumer Protection Research
7		Analyst.
8		
9	<i>Q</i> 2.	PLEASE BRIEFLY SUMMARIZE YOUR EDUCATION AND
10		PROFESSIONAL EXPERIENCE.
11	A2.	I am a 1994 graduate of Webster University, in St. Louis, Missouri, with a Master
12		in Business Administration, and a 1978 graduate of Franklin University, in
13		Columbus, Ohio, with a Bachelor of Science, Engineering Technology. My
14		professional experience includes a career in the Air Force and over 18 years of
15		utility regulatory experience with the OCC.
16		
17		Initially, I served as a compliance specialist with the OCC and my duties included
18		the development of compliance programs for electric, natural gas, and water
19		industries. Later, I was appointed to manage all of the agency compliance
20		specialists who were developing compliance programs in each of the utility
21		industries. My role evolved into the management of the OCC consumer hotline,
22		the direct service provided to consumers to resolve complaints, and inquiries that
23		involve Ohio utilities. More recently, as a Senior Consumer Protection Research

1 Analyst, I am responsible for investigating and recommending policy positions on 2 issues that affect residential consumers. 3 4 I have been directly involved in the development of comments in various rulemaking proceedings at the Public Utilities Commission of Ohio ("PUCO") 5 and the Ohio Development Services Agency ("ODSA") advocating consumer 6 7 protections, utility affordability, and the provision of reasonable access to essential utility services for residential consumers. Specifically related to my 8 9 testimony in this proceeding, I helped formulate OCC positions in the 10 Establishment of Credit Rules and the Disconnection of Gas, Natural Gas, or Electric Service for Residential Customers, set forth in Ohio Admin. Code 11 4901:1-17 and 4901:1-18. I routinely review various reports related to the 12 13 poverty conditions in Ohio and in advocacy for utility bill payment assistance for 14 low-income consumers. 15 16 Also regarding my testimony in this proceeding, my experience has involved 17 helping formulate OCC positions in rulemakings such as the Electric Service Safety Standards, set forth in Ohio Admin. Code 4901:1-10. I routinely review 18 19 inspection, repair, and replacement of distribution facilities plans filed by the 20 Utilities pursuant to Ohio Admin. Code 4901:1-10-27 including the most recent

¹ In the Matter of the Commission's Review of Its Rules for the Establishment of Credit for Residential Utility Services and the Disconnection of Gas, Natural Gas or Electric Services to Residential Customers Contained in Chapters 4901:1-17 and 4901:1-18 of the Ohio Administrative Code, Case No. 13-274-AU-ORD.

² In the Matter of the Commission's Review of Chapters 4901:1-10 of the Ohio Administrative Code Regarding Electric Companies, Case No. 12-2050-EL-ORD.

1		revisions to such a plan filed by Duke. ³ Finally, I have participated in the review
2		of OCC case teams assigned to review the reasonableness of reliability
3		performance standards proposed by Duke Energy Ohio ("Duke" or "Utility").4
4		
5	<i>Q</i> 3.	HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY OR TESTIFIED
6		BEFORE THE PUCO?
7	A3.	Yes. The cases in which I have submitted testimony and/or have testified before
8		the PUCO can be found in attachment JDW-1.
9		
10	II.	PURPOSE OF MY TESTIMONY
11		
12	Q4.	WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS
13		PROCEEDING?
14	A4 .	I am recommending that the PUCO consider customer affordability and
15		the impact on at-risk populations of Duke's proposed electric security plan
16		("ESP III").
17		
18		In this regard I have identified charges proposed by the Utility that will
19		unreasonably increase the costs of electric service to customers. One
20		charge that will negatively impact affordability is the proposed

³ In the Matter of the Application of Duke Energy Ohio, Inc. to Revise and Amend its Circuit Inspection Program, Case No. 12-1679-EL-ESS, Application (May 29, 2012).

⁴ In the Matter of the Application of the Duke Energy Ohio, Inc. to Establish Minimum Reliability Performance Standards Pursuant to Chapter 4901:1-10, Ohio Administrative Code, Case No. 09-757-EL-ESS and Case No. 13-1539-EL-ESS.

1		Distribution Capital Investment Rider ("Rider DCI"). Because of the
2		DCI's impact on customers' electric service affordability, I specifically
3		recommend that the PUCO reject the Rider DCI. I also recommend that
4		the DCI rider be rejected because it does not appear to constitute an
5		infrastructure modernization program that is eligible for funding under an
6		electric security plan.
7		
8	III.	AFFORDABILITY OF RETAIL ELECTRIC SERVICE
9		
10	Q5.	DO THE STATE'S ELECTRIC SERVICE POLICIES REQUIRE THE PUCO
11		TO CONSIDER CUSTOMER AFFORDABILITY IN APPROVING AN ESP?
12	A5.	Yes. It is my understanding that R.C. 4928.02(A) and (L) set forth State policies
13		concerning reasonably priced retail electric service:
14		It is the policy of this state to do the following throughout this
15		state:
16		(A) Ensure the availability to consumers of adequate, reliable,
17		safe, efficient, nondiscriminatory, and reasonably priced retail
18		electric service;
19		and
20		(L) Protect at-risk populations, including, but not limited to, when
21		considering the implementation of any new advanced energy
22		or renewable energy resource; (emphasis added).

1		From this, I conclude that the PUCO has a duty to ensure that the policies
2		specified under this section of the Revised Code are being implemented through
3		the utility's proposed ESP. My understanding has been confirmed by counsel.
4		
5	<i>Q6</i> .	HAS DUKE DEMONSTRATED THAT ITS PROPOSED ESP WILL COMPLY
6		WITH STATE POLICIES OF PROMOTING AFFORDABLE ELECTRIC
7		SERVICE AND PROTECTING AT-RISK POPULATIONS?
8	A6 .	No. Nothing in the Duke ESP III Application addresses the affordability of rates
9		for customers. To the contrary, Duke appears to be using the DCI Rider as a way
10		to collect routine maintenance expenses from its customers on an expedited basis
11		without considering the impact on affordability. This will ultimately increase the
12		cost of electricity for all residential consumers, especially the at-risk populations.
13		
14	<i>Q7</i> .	CAN YOU BRIEFLY DESCRIBE THE AT-RISK POPULATIONS OF
15		DUKE'S OHIO CUSTOMERS THAT ARE LIKELY TO BE NEGATIVELY
16		AFFECTED BY THE ESP III?
17	A7.	The at-risk populations that are affected by the Utility's proposed ESP III are
18		Ohioans living in the Duke service territory with incomes that are at or below the
19		federal poverty guidelines ("FPL"). A single-person household with a gross
20		annual income of \$11,670 would qualify at 100 percent of the FPL. ⁵ A household

⁵ http://aspe.hhs.gov/poverty/14poverty.cfm.

of three persons with a gross annual household income of \$19,790 would qualify 1 at 100 percent of the FPL.6 2 3 A review of The 2014 Ohio Poverty Report⁷ indicates that there are a significant 4 number of individuals and Ohio families who are living in poverty. The number 5 of Ohio families living in poverty is also higher than the national average. 6 Specifically, approximately 16.3 percent of Ohioans were in poverty compared 7 with a 15.9 percent nationwide.⁸ Even more alarming, the at-risk population of 8 Ohioans living in poverty has increased from 10.6 percent since 1999.9 Family 9 poverty has also increased dramatically from 8.3 percent in 1999 to 12.0 percent 10 in 2012.10 11 12 The at-risk population of Duke's customers who live in counties where the 13 14 poverty levels exceed the state average should be a concern for the PUCO. For 15 example, the poverty level in Hamilton County -- the most populous county in Duke's service territory -- is 17.1 percent, well in excess of the statewide poverty 16 17 level of 16.3 percent. The at-risk population of Duke's customers who live in cities should also be of concern to the PUCO because the level of poverty in 18 19 urban areas has increased over the last 15 years in Ohio. For example, Cincinnati,

⁶ Id.

⁷ http://www.development.ohio.gov/files/research/P7005.pdf.

⁸ Ohio Poverty Report at Table A1.

⁹ Ohio Poverty Report at page 6.

¹⁰ Ohio Poverty Report at page 8.

I		the largest city served by Duke has a population of 285,778 residents and a
2		poverty level of 29.4 percent in 2012, compared to 24.3 percent in 1999. ¹¹
3		Another city, Middletown, has a population of 49,919 and a poverty level of 23.8
4		percent in 2012, compared to a 15.4 percent poverty level reflected in 1999. 12
5		
6		The extreme financial hardship currently faced by many customers in these cities
7		and counties must be considered by the PUCO prior to allowing Duke to impose
8		even more electric service increases on these at-risk populations. But there is
9		simply no indication in the ESP III Application that Duke is protecting the at-risk
10		population from the brunt of the proposed ESP III rate increases.
11		
12	<i>Q8</i> .	ARE THERE OTHER AT-RISK POPULATION CONCERNS THAT THE
13		PUCO SHOULD CONSIDER PRIOR TO APPROVING THE PROPOSED
13 14		PUCO SHOULD CONSIDER PRIOR TO APPROVING THE PROPOSED ESP?
	A8.	
14	A8.	ESP?
14 15	A8.	ESP? Yes. While high poverty rates throughout Duke's service territory raise serious
14 15 16	A8.	ESP? Yes. While high poverty rates throughout Duke's service territory raise serious concerns regarding the viability of additional rate increases, the PUCO should
14 15 16 17	A8.	Yes. While high poverty rates throughout Duke's service territory raise serious concerns regarding the viability of additional rate increases, the PUCO should also consider the affordability in a broader sense. For instance, the PUCO should
14 15 16 17 18	A8.	Yes. While high poverty rates throughout Duke's service territory raise serious concerns regarding the viability of additional rate increases, the PUCO should also consider the affordability in a broader sense. For instance, the PUCO should consider the effect of the proposed ESP III on those customers whose incomes are

¹¹ Ohio Poverty Report at Table A6.

¹² Id.

costs of electric services (i.e. the lack of affordability for electric service) because they may not qualify for income-based assistance programs as explained later in this testimony. Table 1 provides a summary of the number of Ohioans with incomes close to the poverty level living in the largest counties served by Duke.

Table 1: Ratio of Income to Poverty level for Counties Served by Duke¹³

Ohio County	Population ¹⁴	100%	125%	150%	185%	200%
Onio County	Opulation	Poverty	Poverty	Poverty	Poverty	Poverty
Brown	43,969	12.8	18.9	24.3	32.8	37.5
Butler	355,778	13.6	17.7	21.5	27.1	29.2
Clermont	195,403	10.3	13.8	17.5	22.5	25.2
Clinton	40,990	15.4	20.0	25.8	33.6	36.3
Hamilton	783,912	17.1	21.3	25.3	30.9	33.2
Highland	42,859	17.6	24.7	31.9	41.5	44.2
Montgomery	514,957	16.8	21.7	26.8	33.7	36.5
Warren	207,350	6.4	8.8	11.4	15.5	17.1

As can be seen in Table 1, a significant number of Ohioans living in counties served by Duke have incomes that are close to the poverty level. A third of the population of Hamilton County is designated as close to the poverty level. For the second largest county served by Duke (Montgomery County), 36.5 percent of the population is designated close to poverty level. While the incomes of some of these Ohioans may be slightly above the federal poverty level, these individuals are already facing significant drains on their incomes for basic living expenses such as shelter, food, transportation, health and safety. Increases in the cost of electric service have to be absorbed in budgets that are already stretched thin.

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¹³ Ohio Poverty Report at Table A7.

¹⁴ Persons for Whom Poverty Status was Determined.

1		There is no indication in the ESP III Application that Duke took steps to moderate
2		the financial impact of the proposed ESP on this at-risk population.
3		
4	<i>Q9</i> .	HAVE INCREASES IN DUKE'S CUSTOMERS' ELECTRIC BILLS
5		REMAINED CONSISTENT WITH INCREASES IN INFLATION OVER THE
6		LAST DECADE.
7	A9.	No. Duke's customers' electric bills have increased at a level of twice the rate of
8		inflation over the last decade. In July 2014, a residential customer bill (based on
9		750 KWH) is \$93.82. 15 In July 2004, a residential customer bill (based on 750
10		KWH) was \$60.71. 16 Therefore, Duke's customers' electric bills have increased
11		by 54.5 percent in just the last ten years. In contrast, the cumulative rate of
12		inflation increased by only 26.1 percent during the same ten years. 17 Had Duke's
13		rate increases remained consistent with the inflation rates, the July 2014 bill
14		would have been \$76.57 instead of \$93.82. This example further demonstrates
15		the negative impact that Duke's electric rates are having on the at-risk
16		populations.

¹⁵ Ohio Utility Rate Survey, A Report by the Staff of the PUCO (July 15, 2014).

¹⁶ Ohio Utility Rate Survey, A Report by the Staff of the PUCO (July 15, 2004).

¹⁷ http://www.usinflationcalculator.com/inflation/current-inflation-rates/.

1	<i>Q10</i> .	ARE THERE OTHER INDICATIONS THAT AFFORDABILITY OF RETAIL
2		ELECTRIC SERVICE FOR RESIDENTIAL CUSTOMERS IN DUKE'S
3		SERVICE TERRITORY IS AN ISSUE THAT SHOULD BE CONSIDERED
4		IN DETERMINING RATES IN THIS CASE?
5	A10.	Yes. As can be seen on Table 2 below, a significant number of Duke's residential
6		customers are already struggling to afford electric service under existing ESP II
7		rates. The proposed rates under Duke's ESP III Application will cause
8		customers' rates to increase even more.
9		
10		Table 2 provides a summary based on 2013 data of the number of Duke's
11		customers who were disconnected for non-payment, customers on the low-income
12		Percentage Income Payment Plan ("PIPP") Plus, and the average number of
13		customers on a monthly basis who were on another payment plan compared with
14		2011 when the rates for the Duke ESP II went into effect. 18 I define these
15		customers as part of the at-risk population under the statute, R.C. 4928.02(L).
16		
17		To qualify for PIPP Plus, customers must have a household income not exceeding
18		150 percent of the Federal Poverty Guidelines. 19 Rather than paying the actual
19		bill, PIPP Plus customers are billed six percent of their monthly household
20		income for electricity (ten percent if all-electric), and the difference from the

¹⁸In the Matter of the Application of Duke Energy Ohio for Approval of a Market Rate Offer to Conduct a Competitive Bidding Process for Standard Service Offer Electric Generation Supply, Accounting Modifications, and Tariffs for Generation Service, Case 10-2586-EL-SSO.

¹⁹ Ohio Admin. Code 122:5-3-02(B)(1).

actual bill accrues as an arrearage.²⁰ Customers who have household incomes that
exceed the PIPP guidelines can apply for another payment plan such as the oneninth, one-sixth, and one-third payment plans set forth in Ohio Admin. Code
4901:1-18-05(B).

Table 2: Disconnections, PIPP Plus, Payment Plans²¹ (2011 - 2013)

Metrics	2011	2013	Percentage Change	Percentage of Total Customers ²²
Disconnections for Non-payment	69,844 ²³	83,199 ²⁴	19.1%	13.5%
Average Number on PIPP Plus	27,161	28,468	4.8%	4.6%
Average Number of Customers on Payment Plans	6,160	13,193	114.5%	2.1%

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Table 2 demonstrates that approximately 83,199 (13.5%) of Duke's customers were disconnected for non-payment in 2013. This is a 19.1 percent increase from the number of disconnections in 2011. This is a strong indicator that Duke's customers are experiencing increasing difficulty paying their electric bills. In

²⁰ Ohio Admin. Code 122:5-3-04.

²¹ In the Matter of the Commission's Review of Chapters 4901-1-17 and 4901:1-18, and Rules 4901:1-5-07, 4901:1-10-22, 4901:1-13-11, 4901:1-15-17, 4901:1-21-14, and 4901:1-29-12 of the Ohio Administrative Code, Case No. 08-723-AU-ORD, PIPP Plus Metrics Data reported to the PUCO Staff.

²² 2013 Annual Report reflects 615,738 residential customers.

²³ In the Matter of the Annual Report of Service Disconnections for Nonpayment Required by Section 4933.123, Ohio Revised Code, Case No. 12-1449-GE-UNC, Report of Service Disconnections of Duke Energy Ohio at 1 (July 24, 2012).

²⁴ In the Matter of the Annual Report of Service Disconnections for Nonpayment Required by Section 4933.123, ORC, Case No. 14-846-GE-UNC, Duke Energy Ohio's Service Disconnection for Nonpayment Report at 1 (June 10, 2014).

addition, approximately 28,468 (4.6%) of Duke's low-income customers were on the specialized PIPP Plus payment programs to avoid loss of service. This is another strong indicator of the magnitude of Duke customers who need special assistance just to maintain electric service. Another 13,193 (2.1%) of Duke's customers were on other payment plans during an average month in an attempt to avoid disconnection of service. ²⁶

Thus, in total approximately 125,000 of Duke's approximate 615,000 residential customers are struggling to pay their current electric bills. This represents approximately 20.3 percent of the total residential customers. These numbers show that affordability is a serious issue that the PUCO must address as it determines whether to accept or modify the proposed ESP III. The proposed ESP III will raise rates even higher and may make electric service unaffordable for many customers. Such a result would be inconsistent with the policies of the state, discussed above.

²⁵ PIPP Plus Metrics Data for 2013 provided by the PUCO Staff.

²⁶ PIPP Plus Metrics Data for 2013 provided by the PUCO Staff.

1 Q11. HOW DOES THE NUMBER OF DUKE CUSTOMERS WHO ARE BEING

2 DISCONNECTED FOR NON-PAYMENT COMPARE WITH THE NUMBER

OF CUSTOMERS BEING DISCONNECTED BY OTHER OHIO ELECTRIC

4 *UTILITIES?*

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A11. During the period June 1, 2013 through May 31, 2014, Duke residential customers were twice as likely to be disconnected for non-payment than the residential customers of practically every other electric utility in the state. Table 3 provides a summary of the number of Duke customers who were disconnected for non-payment compared with the disconnection data for the other Ohio electric distribution utilities ("EDU's").

Table 3: Disconnection of Duke Customers Compared to Other Ohio EDU's²⁷

Utility	Number of Residential	Number of	Disconnection
	Customers	Disconnections	Rate
Duke	615,738	88,199	14.3
DP&L	297,455	31,288	10.5
AEP Ohio	1,273,602	88,390	6.9
Ohio Edison	919,344	45,124	4.9
Toledo Edison	271,717	9,717	3.6
CEI	660,648	14,736	2.2

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The extraordinarily high number of residential customers who are being disconnected for non-payment in the Duke service territory provides yet further evidence of the affordability issues that Duke customers are experiencing.

Customers face serious health, safety, and financial consequences when their

²⁷ In the Matter of the Annual Report of Service Disconnections for Nonpayment Required by Section 4933.123, Revised Code, Case 14-846-GE-UNC.

electric service is terminated for non-payment.²⁸ Any additional increase in electric rates can have an adverse impact by further increasing the number of Duke residential customers who are disconnected – including the at-risk customers.

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6 IV. DISTRIBUTION CAPITAL INVESTMENT RIDER

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8 Q12. PLEASE DESCRIBE THE PROPOSED RIDER DCI?

9 A12. The proposed Rider DCI allows Duke to collect incremental distribution costs 10 from customers sooner than it would otherwise be able to, through a distribution 11 rate case. Duke claims that with such cost recovery through the DCI, it will be 12 able to maintain and/or enhance the safety and reliability of its distribution system.²⁹ The Utility has proposed a disjointed array of nineteen different 13 14 programs that are to be included in its infrastructure modernization plan and funded through the Rider DCI.³⁰ However, the Utility has proposed that the Rider 15 16 DCI evolve over time to enable additional programs or revisions and 17 modifications to be made based on technological advancements or changes in field conditions.³¹ Duke claims that even though customers appear to be satisfied 18 19 with the Utility's reliability and power quality, customer expectations can

²⁸ Access to Utility Service, National Consumer Law Center, Fourth Edison, 2008.

²⁹ Direct Testimony of Marc Arnold at 16 (May 29, 2014).

³⁰ Direct Testimony of Marc Arnold at 18 (May 29, 2014).

³¹ Id.

change.³² The Utility further contends that there is a challenge to fund new 1 2 programs to meet customer expectations when resources are limited to revenues obtained through base rates.³³ There is no indication that Duke has performed a 3 4 cost-benefit analysis, or intends to perform a cost benefit analysis to determine the effectiveness of any of the programs that are included in the Rider DCI. 5 6 7 **Q13.** HOW WILL THE DCI RIDER IMPACT CUSTOMER RATES AND 8 AFFORDABILITY? 9 As explained in the Direct Testimony of OCC Witness Mierzwa, the proposed A13. 10 DCI rider would impact the average residential customer through an increase in rates of nearly \$100 per year by 2018.³⁴ Affordability of electric bills is already 11 12 an issue in the Duke service territory. An increase of \$100 per year can result in 13 even more customers being disconnected for non-payment, more customers 14 ending up on PIPP Plus and other payment plans, and more at-risk customers 15 being at-risk for potential health and safety issues. 16 17 014. DOES DUKE CLAIM THAT THERE WILL BE A RELIABILITY BENEFIT 18 TO CUSTOMERS ASSOCIATED WITH THE RIDER DCI? 19 A14. No. To the contrary, Duke acknowledges that it cannot guarantee that system 20 reliability or customer satisfaction will improve as a result of the imposition of the

³² Direct testimony of Marc Arnold at 15 (May 29, 2014).

³³ Id.

³⁴ Direct Testimony of Jerry Mierzwa at page 8.

DCI Rider.³⁵ Yet elsewhere in his Direct Testimony, Mr. Arnold claims that the 1 2 Rider DCI will allow the Utility to maintain or improve the Customer Average Interruption Duration Index ("CAIDI"), System Average Interruption Frequency 3 4 Index ("SAIFI"), and System Average Interruption Duration Index ("SAIDI"). In 5 response to discovery about which of the DCI programs will maintain reliability and which programs will improve reliability, ³⁶ the Utility changed its position as 6 7 follows: 8 The programs proposed for Rider DCI are system integrity-based 9 programs proposed to maintain the current level of system asset 10 condition. The focus is on maintaining the serviceable condition 11 of the asset and not specifically on improvements to reliability 12 indices. The program may result in incidental improvement to 13 reliability indices but the effect of such improvement cannot be measured.³⁷ (Emphasis added.) 14 15 16 *Q15*. SHOULD THE PUCO PERMIT THE UTILITY TO CHARGE CUSTOMERS 17 IN AN ESP PROCEEDING FOR EXPENSES ASSOCIATED WITH 18 MAINTAINING THE UTILITYS'S DISTRIBUTION SYSTEM? 19 A15. No. Duke claims that the proposed DCI Rider is an infrastructure plan and recovery mechanism permitted under R.C. 4928.143(B)(2)(a).³⁸ However, it's my 20

³⁵ Direct Testimony of Marc Arnold at 17 (May 29, 2014).

³⁶ Duke Response to OCC INT-11-304 (Attached herein as JDW-2).

³⁷ Id.

³⁸ Direct Testimony of Marc Arnold at 15 (May 29, 2014).

1		understanding that this statute permits distribution expenses to be collected as part
2		of an ESP if the distribution expenses relate to infrastructure modernization.
3		Infrastructure modernization is different from maintaining a utility's distribution
4		system. Expenses associated with maintaining a utility's distribution system are
5		those which are generally considered to be included within existing base
6		distribution rates or as part of a distribution rate case, which is governed by R.C.
7		Chapter 4909. In fact, utilities are required to maintain necessary and adequate
8		distribution facilities under R.C. 4905.22. My understanding has been confirmed
9		by counsel.
10		
11	Q16.	CAN YOU PROVIDE A FEW EXAMPLES OF PROGRAMS THAT DUKE
12		HAS PROPOSED TO INCLUDE IN THE DCI RIDER WHICH APPEAR TO
13		BE MAINTENANCE ACTIVITIES INSTEAD OF INFRASTRUCTURE
14		MODERNIZATION?
15	A16.	Yes. I believe all of the programs that were proposed by Duke are more
16		maintenance types of programs rather than infrastructure modernization that
17		might qualify for incentive ratemaking through the DCI Rider. For example,
18		Duke claims that the Vegetation Clearing/Right-of-Way Acquisition/Facility
19		Modification Program is intended to identify dead or high risk tree's or vegetation
20		within or along the right-of-way that pose a risk to overhead lines. ³⁹ Yet in
21		response to OCC INT-11-242 (attached herein as JDW-3), the Utility claims that
22		it already removes dead or high risk tree's or vegetation within or along the right

 $^{^{\}rm 39}$ Direct Testimony of Marc Arnold at 20 (May 29, 2014).

of way that can pose a danger for overhead lines as part of its on-going vegetation management program. Duke acknowledges that this program is a system-integrity-based program being proposed to *maintain* the current level of system asset condition. There is nothing new in this program other than Dukes proposal to expand the program to include the removal of emerald ash borer trees that are outside the annual cycle-based, tree-trimming schedule and that are outside of the 20' wide clearing area. The proposed Underground Cable Replacement Program is another example of Duke seeking to obtain incentive ratemaking to fund a replacement program that the Utility is already required to provide. Duke is required to establish and maintain programs related to the inspection, maintenance, repair and replacement of distribution circuits and equipment such that it can provide safe and reliable service. This program involves the replacement of underground cable that the

16 INT-11-253 (Attached herein as JDW-7), Duke acknowledges that this is system-

Utility determines has reached the end of its useful life.⁴³ In response to OCC-

integrity based program proposed to *maintain* the current level of system assets.

19 Another example is the Distribution Substation Protection Program that is

20 intended to "upgrade" security measures at substations through the installation of

⁴⁰ Duke Response to OCC-INT-11-246 (Attached herein as JDW-4).

⁴¹ Duke Response to OCC-INT-11-243 and OCC-INT-14-390 (Attached herein as JDW-5 and JDW-6).

⁴² Ohio Admin. Code 4901:1-10-27(E)(1).

⁴³ Direct Testimony of Marc Arnold at 22 (May 29, 2014).

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cameras, higher fences, and other theft deterrents. However, according to the Utility response to OCC-INT-11-274 (Attached herein as JDW-8), this is a system-integrity-based program proposed to maintain the current level of system asset condition. The current maintenance provisions that the Utility is using to protect these facilities appear to be working well considering there have been no customer interruptions due to theft or vandalism in four of the last five years.⁴⁴ Mr. Arnold also testified that some components of the distribution facilities were installed in the 70's and 80's. 45 However, in response to follow-up discovery, there Duke did not indicate that it is unable to provide safe and reliable service if the PUCO does not approve the Rider DCI. For example, in response to OCC-INT-14-376 (Attached herein as JDW-10), Duke was unaware of any distribution wood poles that need to be replaced where the replacement was to be made only if the PUCO approved Rider DCI. Similarly, Duke was unaware of any overhead or underground transformers that need to be replaced in order for Duke to provide safe and reliable service where the replacement was contingent upon PUCO approval of the Rider DCI. 46 In response to OCC-INT-14-385 (attached herein as JDW-13), Duke was unaware of any switchgear that needs to be replaced in order for the Utility to provide safe and reliable service where the replacement was contingent upon PUCO approval of the Rider DCI. 20

⁴⁴ Duke response to OCC-INT-14-393 (Attached herein as JDW-9).

⁴⁵ Direct Testimony of Marc Arnold at Attachment MVA-1 (May 29, 2014).

⁴⁶ Duke response to OCC-INT-14-379 and 14-382 (Attached herein as JDW-11 and JDW-12).

1	<i>Q17</i> .	DOES DUKE CLAIM THAT THE RIDER DCI WILL RESULT IN
2		REDUCTIONS IN OPERATIONS AND MAINTENANCE COSTS?
3	A17.	Yes, Duke claims that the replacement of obsolete and aging infrastructure will
4		eventually reduce outages and therefore reduce operating and maintenance
5		("O&M") costs. ⁴⁷ However, Duke has not been able to identify the number of
6		outages that are attributed to aged infrastructure and, therefore, the potential
7		reductions in O&M expenses are speculative. ⁴⁸ Moreover, as noted by OCC
8		Witness Mierzwa, Duke has indicated that these reductions to O&M will not flow
9		through to customers until (and unless) the Utility files a distribution rate case.
10		
11	Q18.	CAN YOU BRIEFLY DESCRIBE DUKE'S RELIABILITY INDICES AND
11 12	Q18.	CAN YOU BRIEFLY DESCRIBE DUKE'S RELIABILITY INDICES AND HOW THESE STANDARDS WERE ESTABLISHED?
	Q18.	
12	~	HOW THESE STANDARDS WERE ESTABLISHED?
12 13	~	HOW THESE STANDARDS WERE ESTABLISHED? Yes. Under R.C. 4928.11(A) the PUCO is required to adopt rules that include
12 13 14	~	HOW THESE STANDARDS WERE ESTABLISHED? Yes. Under R.C. 4928.11(A) the PUCO is required to adopt rules that include prescriptive standards for the inspection, maintenance, repair, and replacement of
12 13 14 15	~	HOW THESE STANDARDS WERE ESTABLISHED? Yes. Under R.C. 4928.11(A) the PUCO is required to adopt rules that include prescriptive standards for the inspection, maintenance, repair, and replacement of distribution equipment and specific standards for reliability. The PUCO has
12 13 14 15 16	~	HOW THESE STANDARDS WERE ESTABLISHED? Yes. Under R.C. 4928.11(A) the PUCO is required to adopt rules that include prescriptive standards for the inspection, maintenance, repair, and replacement of distribution equipment and specific standards for reliability. The PUCO has adopted rules in Ohio Admin. Code 4910:1-10-10 that require each electric utility
12 13 14 15 16	~	HOW THESE STANDARDS WERE ESTABLISHED? Yes. Under R.C. 4928.11(A) the PUCO is required to adopt rules that include prescriptive standards for the inspection, maintenance, repair, and replacement of distribution equipment and specific standards for reliability. The PUCO has adopted rules in Ohio Admin. Code 4910:1-10-10 that require each electric utility to maintain a SAIFI standard and a CAIDI standard. SAIFI is a measure of the

⁴⁷ Direct Testimony of Marc Arnold at 20 (May 29, 2014).

⁴⁸ Duke Response to OCC INT-11-203 (Attached herein as JDW-14).

1	performing circuits based upon SAIFI, CAIDI, and SAIDI performance data. ⁴⁹
2	SAIDI, the System Average Interruption Duration Index, is a measure of the
3	average duration of outages at the system level. In a reliability proceeding, the
4	electric utility has the burden of proof to justify standards based on historical
5	system performance, system design, technological advancements, service area
6	geography, customer perception survey results and other relevant factors. ⁵⁰
7	
8	Duke's reliability standards for 2014 are a SAIFI of 1.1 and a CAIDI of 121.25
9	minutes. ⁵¹ For 2015 and 2016, the reliability standards are a SAIFI of 1.05 and a
10	CAIDI of 122.81. ⁵² It is important to note that these standards exclude outages
11	that are associated with major events, transmission/generation outages, and those
12	outages that have durations of less than five minutes. Thus the standards are
13	applied to the normal performance of the distribution system when there are no
14	other significant major events that can impact system reliability. Based on these
15	standards, Duke has met or exceeded the reliability standards for each year since
16	2011.

⁴⁹ Ohio Admin. Code 4901:1-10-11(C)(1).

⁵⁰ Ohio Admin. Code 4901:1-10-10(B)(4)(a).

⁵¹ In the Matter of the Application of Duke Energy Ohio, Inc. for Approval of Proposed Reliability Standards, Case 09-757-EL-ESS, Opinion and Order at 4 (July 29, 2010).

⁵² In the Matter of the Application of Duke Energy Ohio, Inc. to Establish Reliability Standards, Case 13-1539-EL-ESS, Opinion and Order at 4 (September 17, 2014).

1	Q19.	IS THE CUSTOMER PERCEPTION SURVET THAT IS USED AS AN
2		INPUT IN CALCULATING RELIABILITY PERFORMANCE STANDARDS
3		A REASONABLE WAY TO MEASURE CUSTOMER EXPECTATIONS
4		CONCERNING RELIABILITY?
5	A19.	I believe so. Attached herein as JDW-15 is a copy of the PUCO's Reliability
6		Residential Survey Results that were used in establishing the current Duke
7		reliability standards. ⁵³ The customer perception survey asks customers how many
8		momentary and sustained interruptions they would find acceptable in a 12-month
9		period and then inquires about how many momentary and sustained outages were
10		actually experienced in the past 12 months. The vast majority of respondents
11		would find three (or fewer) momentary outages (i.e., outages with durations of
12		less than 5 minutes) in the previous 12 months to be acceptable. ⁵⁴ When asked
13		about the number of momentary outages that were experienced in the previous 12
14		months, the vast majority of respondents reported having two (or fewer)
15		momentary outages. These results indicate that Duke's customers are generally
16		satisfied with the level of momentary outages that are being experienced. ⁵⁵
17		Regarding sustained outages (i.e., outages with durations greater than five
18		minutes), the vast majority of respondents would consider two (or fewer)
19		sustained outages in a 12 month period to be acceptable. ⁵⁶ The majority of
20		respondents reported having either no outages or only one outage in the previous
		

⁵³ Application Update of Duke Energy Ohio, Inc. Customer Perception Survey, Residential, Case 13-1539-EL-ESS, (July 28, 2013).

⁵⁴ Id.

⁵⁵ Id.

⁵⁶ Id.

12 months.⁵⁷ These results indicate that Duke's customers are generally satisfied 1 with the number of sustained outages in the last 12 months. 2 3 4 The customer perception survey also asks customers the maximum amount of money that they would be willing to have included on their electric bill to avoid a 5 one-hour or two-hour electric outage.⁵⁸ The vast majority of respondents were 6 7 unwilling to have any additional charge added to their bill to avoid outage durations of up to two hours.⁵⁹ These results indicate that customers are unwilling 8 to pay for a level of reliability that exceeds the reliability that customers are 9 already receiving. 10 11 **Q20.** DOES DUKE RELY UPON THE CUSTOMER PERCEPTION SURVEY TO 12 **DETERMINE CUSTOMER RELIABILITY EXPECTATIONS?** 13 No. Duke claims that the surveys are not used for planning purposes. 60 Yet these 14 A20. are the very same surveys that Duke is required to use as an input for calculating 15 new reliability performance standards.⁶¹ Based on follow-up discovery 16 concerning why the surveys were not the basis for planning customer expectations 17 the Utility claimed that the surveys do not meet Duke's standards. 62 But the Duke 18

⁵⁷ Application Update of Duke Energy Ohio, Inc. Customer Perception Survey, Residential, Case 13-1539-EL-ESS, (July 28, 2013).

⁵⁸ Id.

⁵⁹ Id.

⁶⁰ Direct Testimony of Marc Arnold at page 14 (May 29, 2014).

⁶¹ Ohio Admin. Code 4901:1-10-10(B)(4)(b).

⁶² Duke response to OCC-INT-14-388 (Attached herein as JDW-16).

standards are not defined. The Utility claims that it only relies upon a J.D. Power and Associates survey for the purposes of consistency. However, these J.D. Power and Associates customer satisfaction results involve Ohio and Kentucky and are part of a Midwest Summary Presentation that is not Duke Ohio customer specific. However, these J.D.

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The J.D. Power and Associates survey may have some broad company-wide uses for Duke related to its services in several states. But the customer perception survey, which is required pursuant to the PUCO rules, 65 should be used to help develop reliability performance standards for any distribution infrastructure improvements that impact reliability for Duke Ohio customers. The customer perception survey is conducted by polling actual Duke's customers. The J.D. Power survey is not based on Duke customer responses, but on a more regional basis. The Ohio customer focus is especially important in determining whether Duke's customers are willing or able to pay higher electric bills for additional reliability. In response to OCC-INT-11-308 (Attached herein as JDW-17), the Utility stated that it has conducted no customer surveys to determine to what extent customers are willing to pay higher rates in order to get better service quality. However, the PUCO required survey that was mentioned earlier in this testimony demonstrates an unwillingness by customers to pay more to avoid many of the non-major outages.

⁶³ Id.

⁶⁴ Direct testimony of Marc Arnold at page 13 (May 29, 2014).

⁶⁵ Ohio Admin. Code 4901:1-10-10(B)(4)(b).

1 It's my understanding that Ohio law requires the PUCO Commission to examine the reliability of an electric distribution system to determine if the customers' and 2 3 utilities' expectations concerning reliability are aligned prior to approving an infrastructure modernization plan. 66 To the extent that Dukes' PUCO customer 4 5 perception survey indicates that the Utility customers are unwilling to pay more to 6 avoid non-major outages, customers' and Dukes' expectations concerning 7 reliability are not aligned. Approval of the Rider DCI, as proposed by Duke, 8 appears to contradict Ohio law. 9 WHAT IS YOUR RECOMMENDATION CONCERNING THE RIDER DCI? 10 *Q21*. A21. Based upon the large number of at-risk customers in Duke's service territory who 11 12 would be hurt by unreasonable price increases in electric bills I recommend that the DCI rider be rejected. Additionally, I conclude that Duke has not 13 demonstrated that the proposed rider DCI is an infrastructure modernization 14 15 program as required by law. This is another reason for the PUCO to reject the 16 proposed DCI Rider. Finally, I conclude that customers' interests and the utilities' interests are not aligned, which is a requirement under the statute. All of 17 18 these conclusions lead me to recommend that the PUCO reject the DCI rider. 19 20 In the alternative, if the PUCO chooses to approve the Rider DCI, contrary to my 21 recommendation otherwise, I recommend that the PUCO require Duke to conduct 22 a cost-benefit analysis for each of the DCI programs to justify going forward with

⁶⁶ R.C. 4928.143(B)(2)(h).

1		the program. I also recommend that for those programs that pass a cost benefit
2		analysis, and are implemented, the Utility should annually quantify the
3		improvements in reliability from the program prior to spending any additional
4		customer money on the program.
5		
6	V.	CONCLUSION
7		
8	Q22.	DOES THIS CONCLUDE YOUR TESTIMONY?
9	A22.	Yes. However, I reserve the right to incorporate new information that may
10		subsequently become available through outstanding discovery or otherwise.

CERTIFICATE OF SERVICE

It is hereby certified that a true copy of the foregoing *Direct Testimony of James D*.

Williams on Behalf of the Office of the Ohio Consumers' Counsel has been served via electronic transmission this 26th day of September 2014.

/s/ Maureen R. Grady
Maureen R. Grady
Assistant Consumers' Counsel

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Testimony of James D. Williams Filed at the Public Utilities Commission of Ohio

- 1. In the Matter of the Application of the Cincinnati Gas and Electric Company for an Increase in Its Rates for Gas Service to All Jurisdictional Customers, Case No. 95-0656-GA-AIR (August 12, 1996).
- 2. In the Matter of the Application of the Cincinnati Gas and Electric Company for an Increase in Its Rates for Gas Service to All Jurisdictional Customers, Case No. 01-1228-GA-AIR (February 15, 2002).
- 3. In the Matter of the Commission's Investigation into the Policies and Procedures of Ohio Power Company, Columbus Southern Power Company, The Cleveland Electric Illuminating Company, Ohio Edison Company, The Toledo Edison Company and Monongahela Power Company regarding installation of new line extensions, Case No. 01-2708-EL-COI (May 30, 2002).
- 4. In the Matter of the Application of The East Ohio Gas Company d/b/a Dominion East Ohio for an Increase in Its Rates for Gas Service to All Jurisdictional Customers, Case No. 07-0829-GA-AIR (June 23, 2008).
- 5. In the Matter of the Application of the Columbia Gas of Ohio, Inc. for Authority to Amend Filed Tariffs to Increase the Rates and Charges for Gas Distribution, Case No. 08-072-GA-AIR (September 25, 2008).
- 6. In the Matter of a Settlement Agreement Between the Staff of the Public Utilities Commission of Ohio, The Office of the Consumers' Counsel and Aqua Ohio, Inc. Relating to Compliance with Customer Service Terms and Conditions Outlined in the Stipulation and Recommendation in Case No. 07-564-WW-AIR and the Standards for Waterworks Companies and Disposal System Companies, Case No. 08-1125-WW-UNC (February 17, 2009).
- 7. In the Matter of the Application of the Ohio American Water Company to Increase its Rates for water and Sewer Services Provided to its Entire Service Area, Case No. 09-391-WS-AIR (January 4, 2010).
- 8. In the Matter of the Application of Aqua Ohio, Inc. for Authority to Increase its Rates and Charges in its Masury Division, Case No. 09-560-WW-AIR (February 22, 2010).
- In the Matter of the Application of Aqua Ohio, Inc. for Authority to Increase its Rates and Charges in Its Lake Erie Division, Case No. 09-1044-WW-AIR (June 21, 2010).

- 10. In the Matter of the Application of The Ohio American Water Company to Increase its Rates for Water Service and Sewer Service, Case No. 11-4161-WS-AIR (March 1, 2012).
- 11. In the Matter of Columbus Southern Power Company and Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to Section 4928.143, Ohio Rev. Code, in the Form of an Electric Security Plan, Case No. 11-346-EL-SSO, et al (May 4, 2012).
- 12. In the Matter of the Application of The Dayton Power and Light Company for Approval of its Market Rate Offer, Case No. 12-426-EL-SSO (June 13, 2012).
- 13. In the Matter of the Application of Ohio Power Company to Establish Initial Storm Damage Recovery Rider Rates, Case No. 12-3255-EL-RDR (December 27, 2013).
- 14. In the Matter of the Application of Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to Section 4928.143, Ohio Rev. Code, in the Form of an Electric Security Plan, Case No. 13-2385-EL-SSO (May 6, 2014).
- 15. In the Matter of the Application of Duke Energy Ohio for Authority to Establish a Standard Service Offer Pursuant to Section 4928.143, Revised Code, in the Form of an Electric Security Plan, Accounting Modifications and Tariffs for Generation Service, Case 14-841-EL-SS0 (May 29, 2014).

OCC-INT-11-304

REQUEST:

Referring to the Direct Testimony of Mr. Arnold at page 35, for each of the programs that are proposed to be included in the Rider DCI (as listed on page 18-19 of Mr. Arnolds Direct testimony), identify which programs are expected to maintain reliability and which programs are expected to improve reliability.

RESPONSE:

The programs proposed for Rider DCI are system integrity-based programs proposed to maintain the current level of system asset condition. The focus of the program is on maintaining the serviceable condition of the asset and not specifically on improvements to reliability indices. The program may result in incidental improvement to reliability indices but the effect of such improvement cannot be measured.

PERSON RESPONSIBLE:

OCC-INT-11-242

REQUEST:

Referring to the Direct Testimony of Mr. Arnold at page 20, does Duke currently remove dead or high risk trees or vegetation within or along the right of way that can pose a danger for overhead lines?

RESPONSE:

Yes, we do as this is an existing program that we need to expand due to the emerald ash borer.. This program is outside of our annual cycle trimming schedule.

PERSON RESPONSIBLE:

OCC-INT-11-246

REQUEST:

Referring to the response to OCC INT-244, if Duke does not expect any quantifiable improvement in CAIDI and SAIDI to occur as a result of funding for the Vegetation Clearing/Right of Way Acquisition/Facility Modification Program, please explain why not.

RESPONSE:

This program is a system integrity-based program proposed to maintain the current level of system asset condition. The focus of the program is on maintaining the serviceable condition of the asset and not specifically on improvements to reliability indices. The program may result in incidental improvement to reliability indices but the effect of such improvement cannot be measured.

PERSON RESPONSIBLE:

OCC-INT-11-243

REQUEST:

If the response to OCC INT-242 is that Duke does not currently remove dead or high risk trees or vegetation within or along the right of way that can pose a danger for overhead lines, please explain why not.

RESPONSE:

Please see response to INT-242

Duke Energy needs to expand this program due to the emerald ash borer.. This program is outside of our annual cycle trimming schedule.

PERSON RESPONSIBLE:

Duke Energy Ohio Case No. 14-841-EL-SSO, 14-842-EL-ATA OCC Fourteenth Set Interrogatories Date Received: September 2, 2014

OCC-INT-14-390

REQUEST:

Referring to Duke's response to OCC-INT-242, does Duke currently trim or remove emerald ash borer trees that are within or along the right of way as part of the annual cycle based trimming schedule?

RESPONSE:

Duke Energy has (2) annual programs. The annual cycle based schedule is an O&M program and involves trimming all vegetation inside the right of way 20' wide with the utility pole in the center. The Danger/Hazard program is a capital program and involves removing ash trees within, along and outside the right of way. These trees would not be within the 20' O&M program mentioned above.

PERSON RESPONSIBLE:

Duke Energy Ohio
Case No. 14-841-EL-SSO, 14-842-EL-ATA
OCC Eleventh Set Interrogatories
Date Received: August 5, 2014

OCC-INT-11-253

REQUEST:

Referring to the response to OCC INT-251, if Duke does not expect any quantifiable improvement in CAIDI and SAIDI to occur as a result of funding for the Underground Cable Replacement Program, please explain why not.

RESPONSE:

This program is a system integrity based program proposed to maintain the current level of system asset condition. The focus of the program is on maintaining the serviceable condition of the asset and not specifically on improvements to reliability indices. The program may result in incidental improvement to reliability indices but the effect of such improvement cannot be measured.

PERSON RESPONSIBLE:

Marc Arnold

Duke Energy Ohio Case No. 14-841-EL-SSO, 14-842-EL-ATA OCC Eleventh Set Interrogatories Date Received: August 5, 2014

OCC-INT-11-274

REQUEST:

Referring to the response to OCC INT-273, please explain how Duke quantified the improvement in CAIDI and SAIDI that Duke expects to occur as a result of the Distribution Substation Protection Program.

RESPONSE:

This program is a system integrity-based program proposed to maintain the current level of system asset condition. The focus of the program is on maintaining the serviceable condition of the asset and not specifically on improvements to reliability indices. The program may result in incidental improvement to reliability indices but the effect of such improvement cannot be measured.

PERSON RESPONSIBLE:

Marc Arnold

OCC-INT-14-393

REQUEST:

Referring to Duke's response to OCC-INT-273, how many customer interruptions for the period 2009 - 2013 were attributable to:

- A. Theft of substation equipment, and
- B. Substation vandalism?

RESPONSE:

There were zero customer interruptions due to theft or vandalism of substation equipment in 2009, 2010, 2012 and 2013.

In 2011 there was one event which caused 870 customer interruptions due to theft of substation equipment.

PERSON RESPONSIBLE:

Ilona Korb

OCC-INT-14-376

REQUEST:

Referring to Duke's response to OCC-INT-375, is Duke aware of any distribution wood poles that need to be replaced in order for Duke to provide safe and reliable service where the funding for the replacement of the pole is contingent upon the PUCO approval of Rider DCI?

RESPONSE:

No.

OCC-INT-14-379

REQUEST:

Referring to Duke's response to OCC-INT-378, is Duke aware of any overhead transformers that need to be replaced in order for Duke to provide safe and reliable service where the funding for the replacement of the overhead transformer is contingent upon the PUCO approval of Rider DCI?

RESPONSE:

No.

OCC-INT-14-382

REQUEST:

Referring to Duke's response to OCC-INT-381, is Duke aware of any underground transformers that need to be replaced in order for Duke to provide safe and reliable service where the funding for the replacement of the underground transformer is contingent upon the PUCO approval of Rider DCI?

RESPONSE:

No.

OCC-INT-14-385

REQUEST:

Referring to Duke's response to OCC-INT-384, is Duke aware of any switchgear that needs to be replaced in order for Duke to provide safe and reliable service where the funding for the replacement of the switchgear is contingent upon the PUCO approval of Rider DCI?

RESPONSE:

No.

Duke Energy Ohio
Case No. 14-841-EL-SSO, 14-842-EL-ATA
OCC Eleventh Set Interrogatories
Date Received: August 5, 2014

OCC-INT-11-203

REQUEST:

Referring to the Direct Testimony of Mr. Arnold at page 9, please describe the process that Duke uses to determine if the cause of an outage is a result of an aging distribution system.

RESPONSE:

There exists no formal process to determine if the cause of the outage was a result of an aging distribution system. Aging distribution system refers to unique older equipment where similar replacement units are no longer manufactured or in stock other than in Duke Energy Ohio's inventory. However, after an outage occurs, and it is determined that a replacement unit is needed, Company crews contact the Company's inventory management team. Currently, Duke Energy Ohio has units that are in service for which, due to their size or configuration there are no direct replacements. When there are no replacement parts available or available at a reasonable cost, the cause is determined to be due to a part that is aging or aged. Examples of such parts are WYE-DELTA transformers, 240V and 480V, which are prevalent on Duke Energy's Ohio System.

PERSON RESPONSIBLE:

Marc Arnold

Residential Survey Results Ohio PUC Reliability Q1-13 Update

Prepared By Duke Energy Customer Satisfaction



Completed Survey Counts

- Online survey emailed to a random sample of residential customers
- **Email invitations mailed in Waves**

Residential Regulated

	Q2-12	Q3-12	Q4-12	YE-12	Q1-13
Sample Size	299	750	200	1917	1350
Completed Surveys	45	49	33*	127	100
Response Rate	2%	%4	2%	2%	7%

Residential Non-Regulated

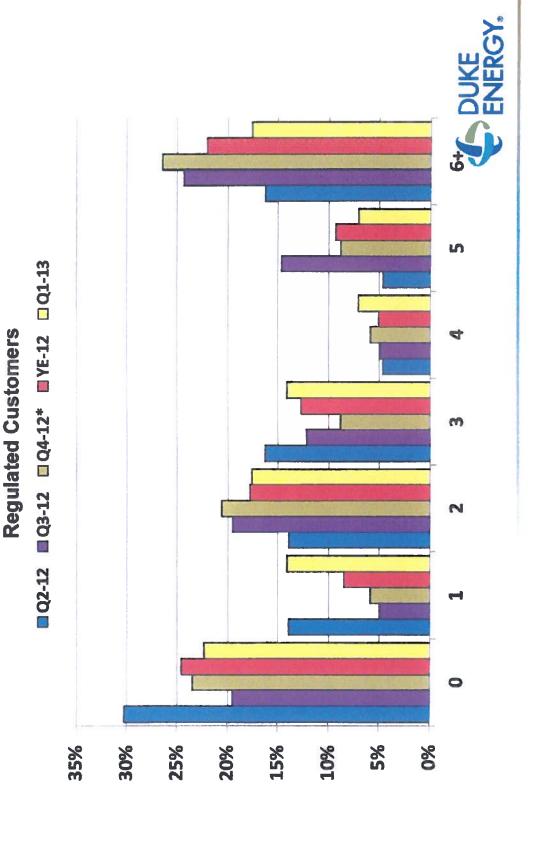
	Q2-12	Q3-12	04-12	YE-12	Q1-13
Sample Size	448	525	350	1323	575
Completed Surveys	56	20	37*	143	39*
Response Rate	13%	10%	%6	11%	7%
	The second name of the last of				

*Use caution when interpreting results; low sample sizes

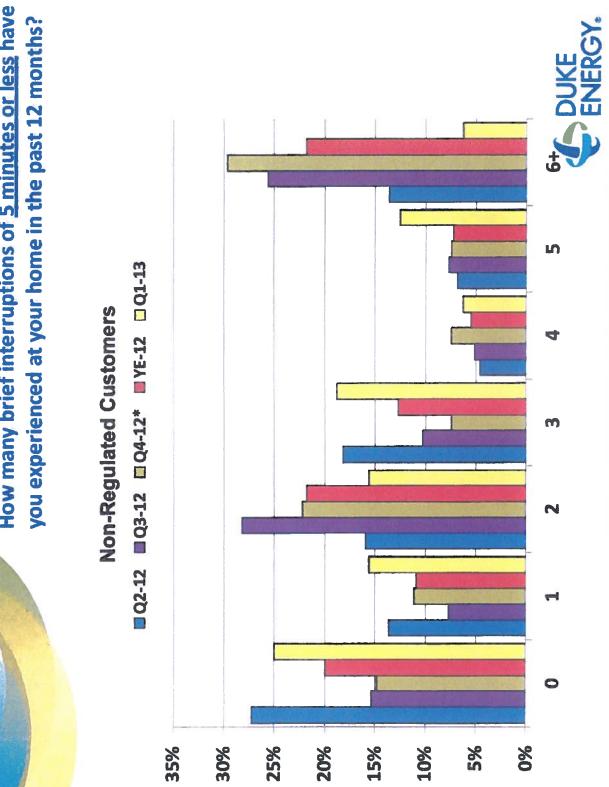


How many brief interruptions of 5 minutes or less have

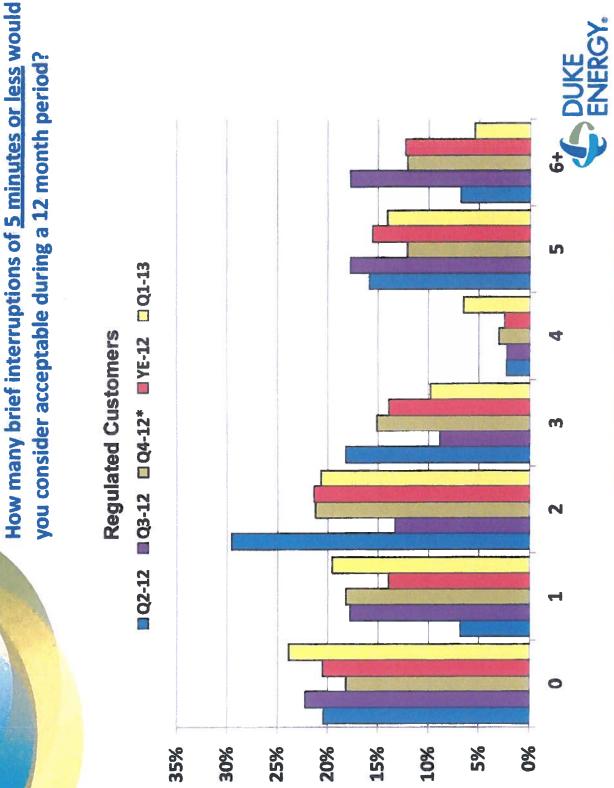




How many brief interruptions of 5 minutes or less have

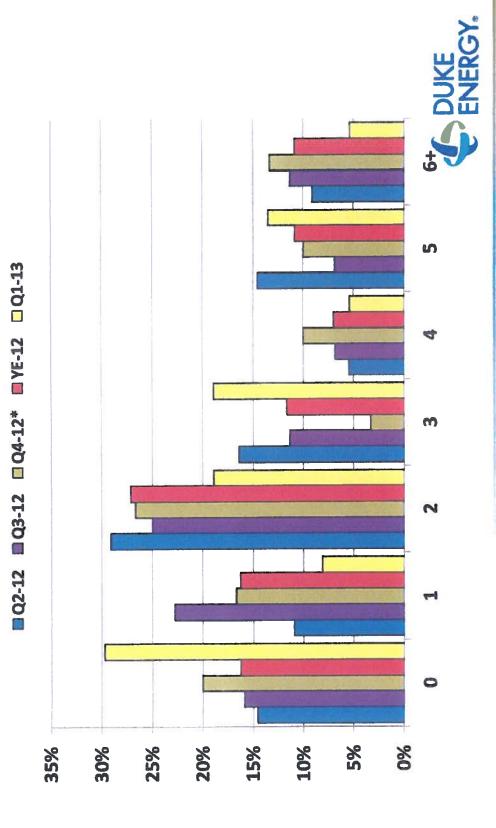


How many brief interruptions of 5 minutes or less would



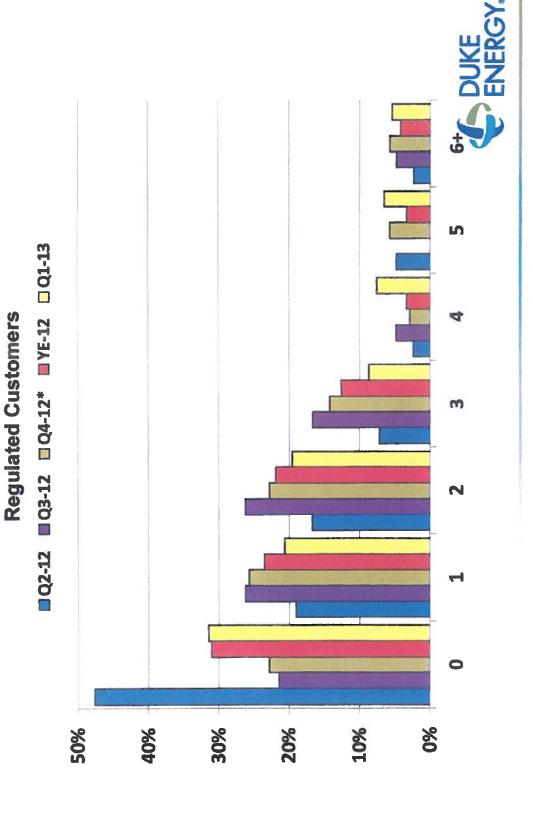
How many brief interruptions of 5 minutes or less would you consider acceptable during a 12 month period?





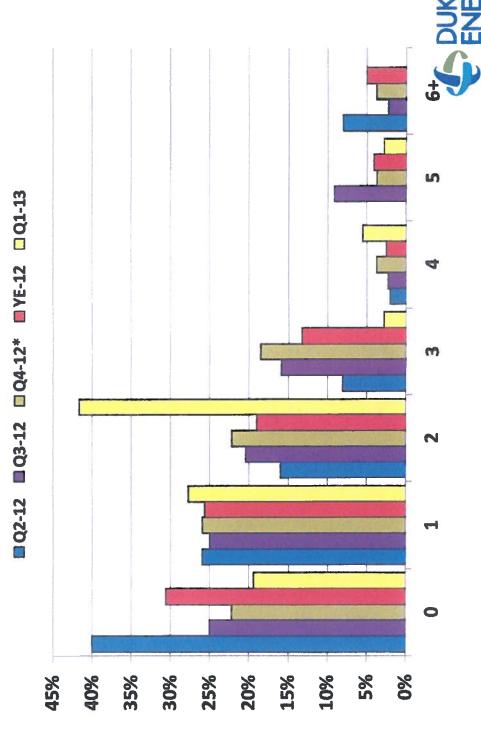
5 minutes have you experienced at your home How many lengthy interruptions of more than





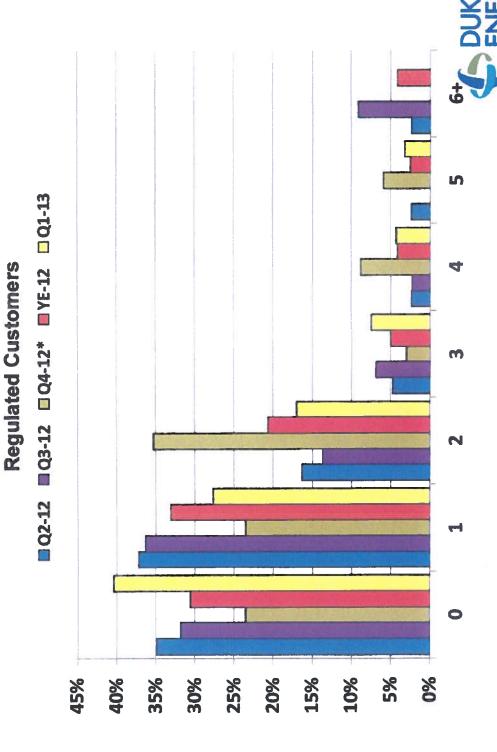
How many lengthy interruptions of more than 5 minutes have you experienced at your home in the past 12 months?





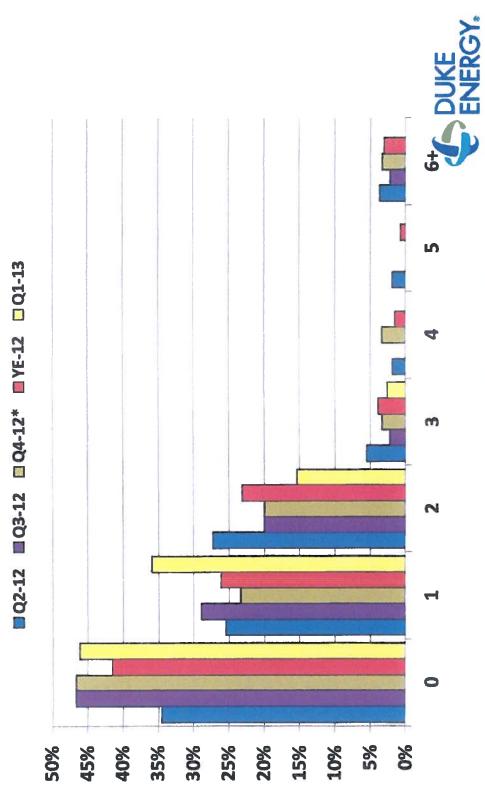
How many lengthy interruptions of more than 5 minutes would you consider acceptable during a 12 month period?





How many lengthy interruptions of more than 5 minutes would you consider acceptable during a 12 month period?

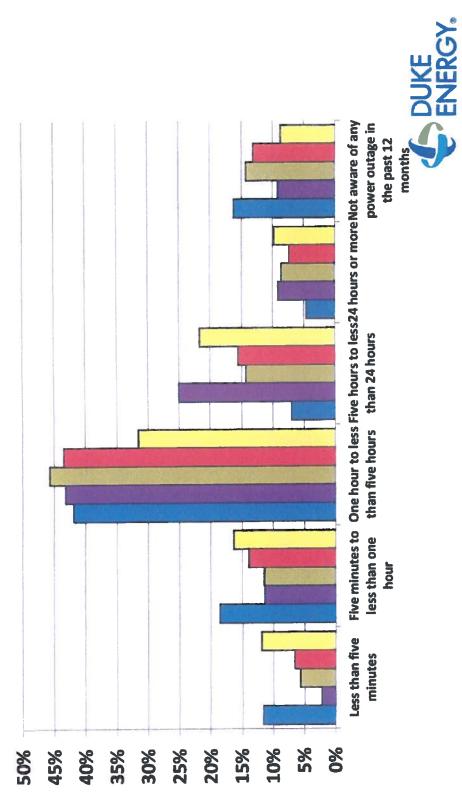




Would you estimate your longest power outage in the past 12 months to be:

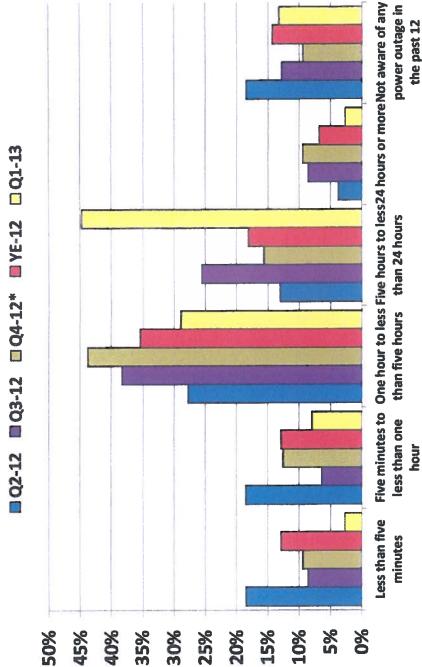
Regulated Customers





Would you estimate your longest power outage in the past 12 months to be:

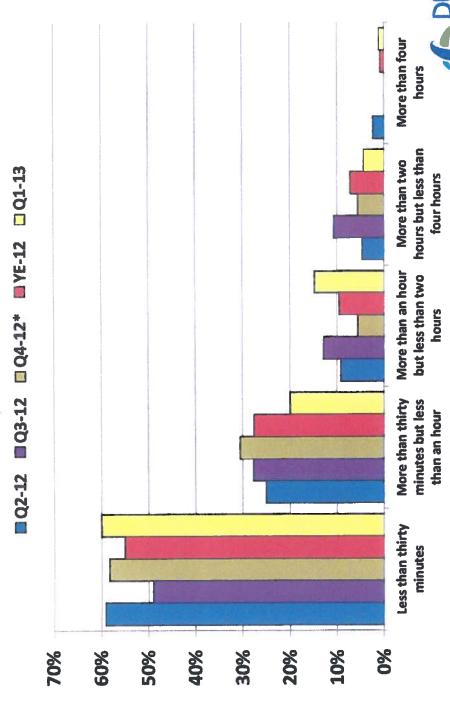
Non-Regulated Customers



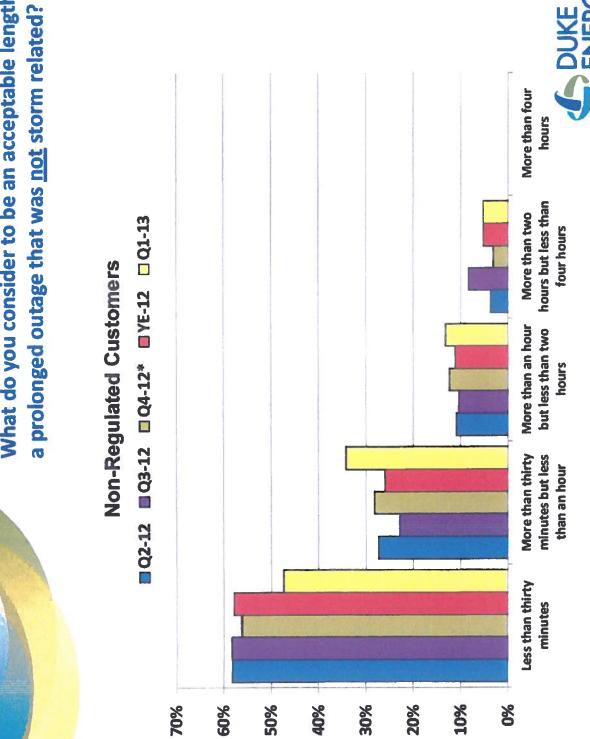


What do you consider to be an acceptable length of a prolonged outage that was <u>not</u> storm related?



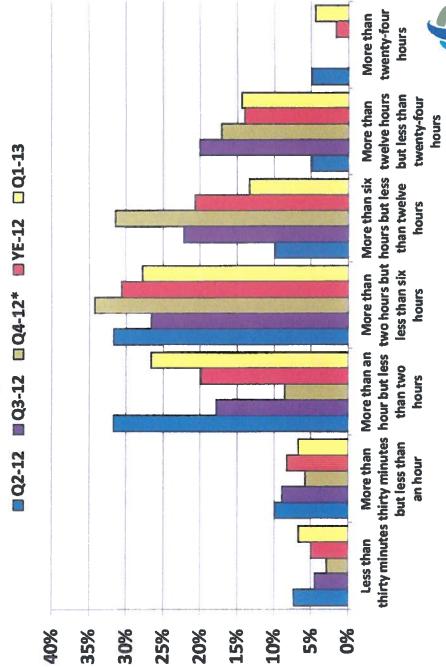


What do you consider to be an acceptable length of



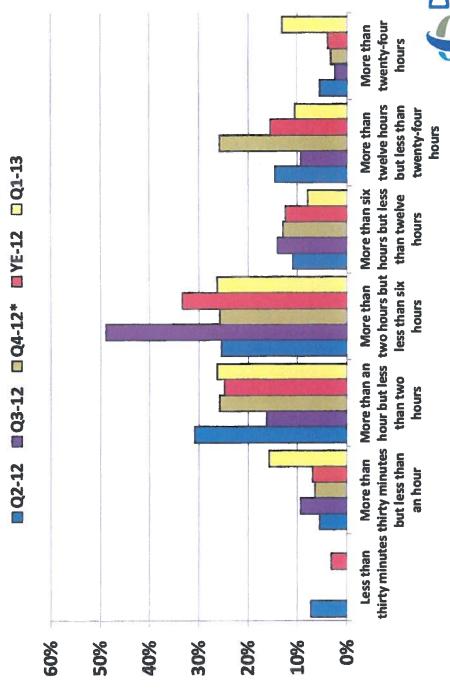
What do you consider to be an acceptable length of a prolonged outage that <u>was</u> storm related?





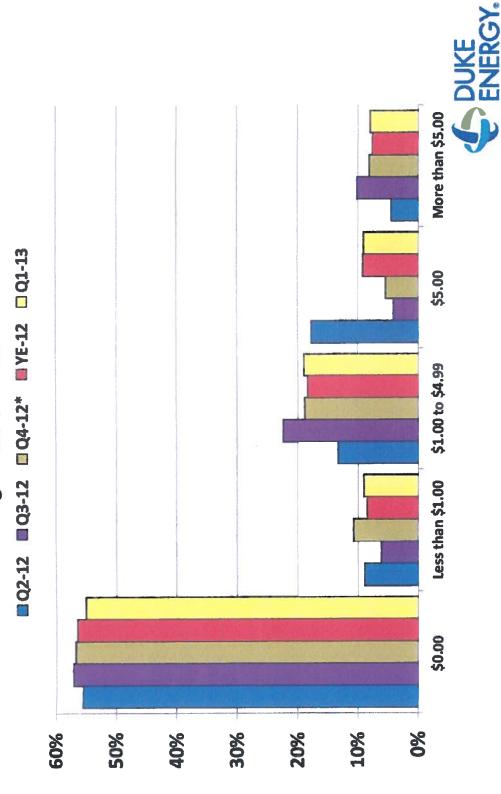
What do you consider to be an acceptable length of a prolonged outage that was storm related?





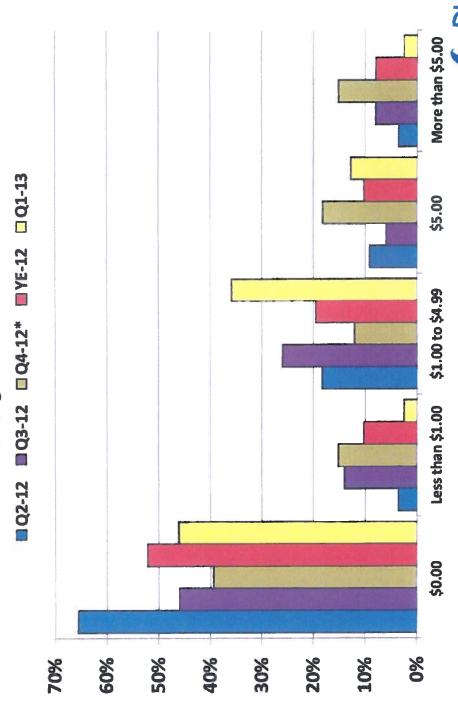
summer day, what is the maximum amount that you would be willing to pay and have included in your electric bill in order to avoid a 1 hour electric service outage to your residence? During a specified period of system stress, such as a hot





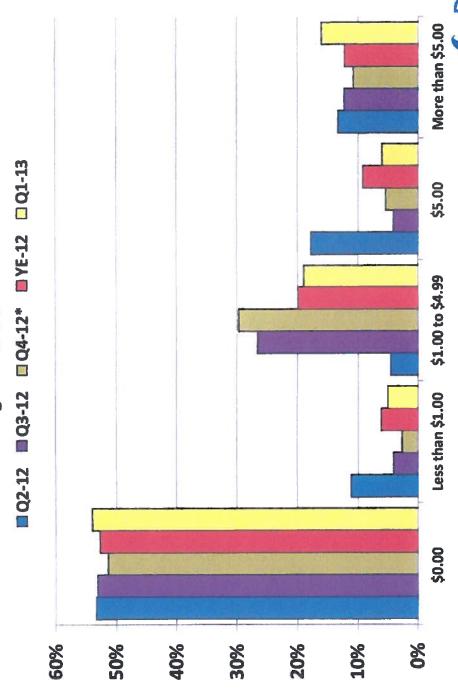
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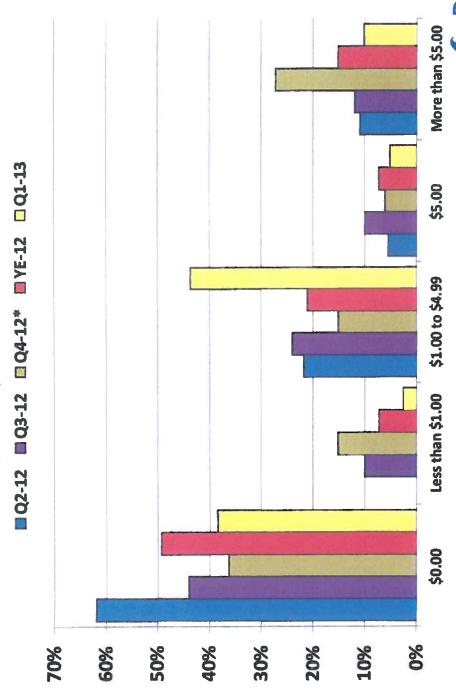
summer day, what is the maximum amount that you would be willing to pay and have included in your electric bill in order to avoid a 2 hour electric service outage to your residence? During a specified period of system stress, such as a hot

Regulated Customers



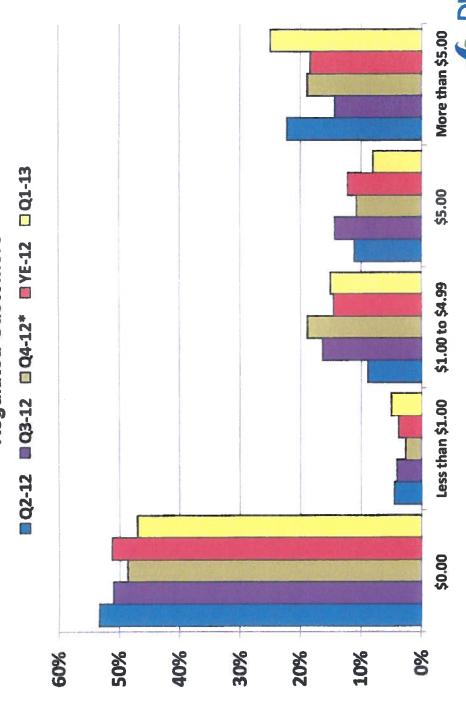
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Non-Regulated Customers



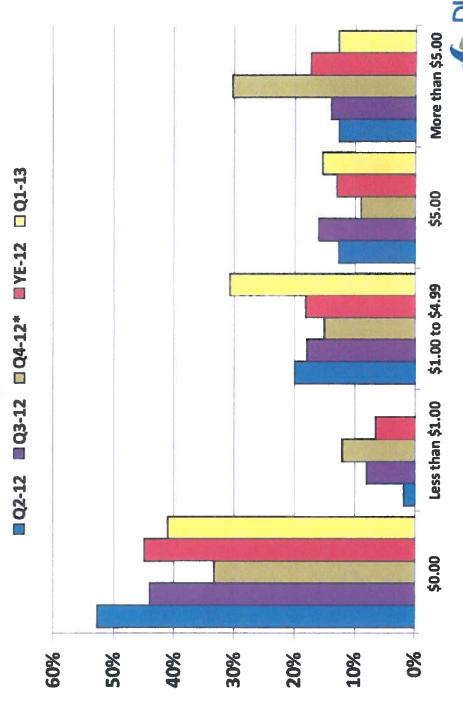
summer day, what is the maximum amount that you would be willing to pay and have included in your electric bill in order to avoid a 4 hour electric service outage to your residence? During a specified period of system stress, such as a hot





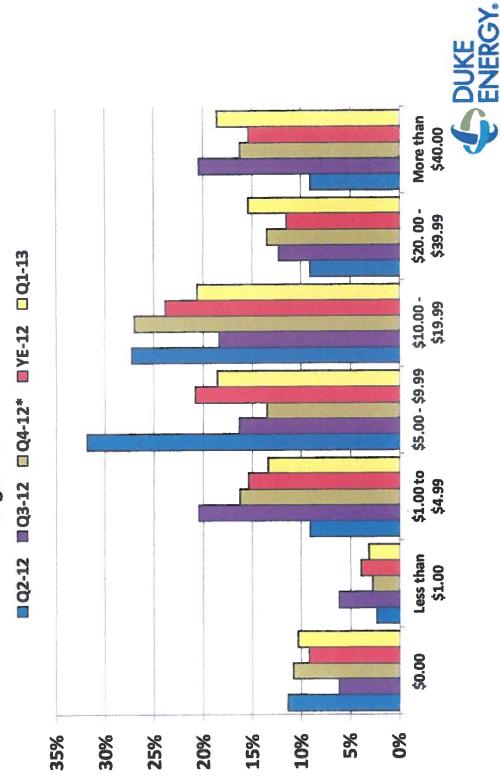
summer day, what is the maximum amount that you would be willing to pay and have included in your electric bill in order to avoid a 4 hour electric service outage to your residence? During a specified period of system stress, such as a hot





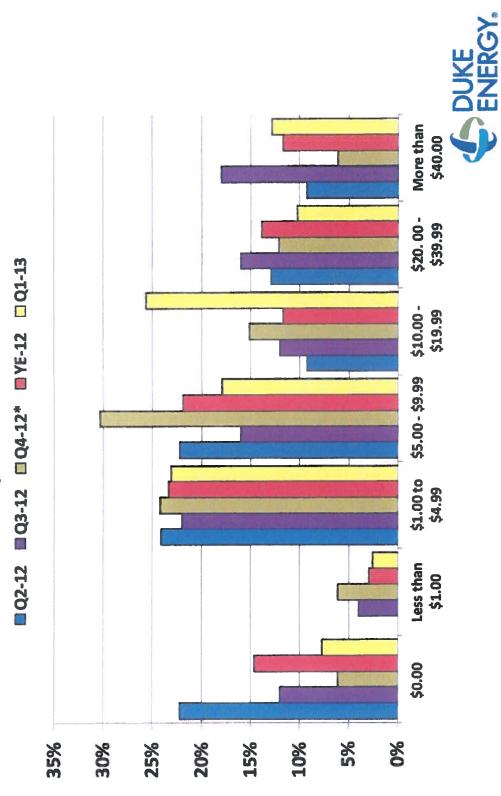
How much of a credit to your electric bill would you require from the utility to allow the electric company to interrupt service to your residence for 1 hour?

Regulated Customers



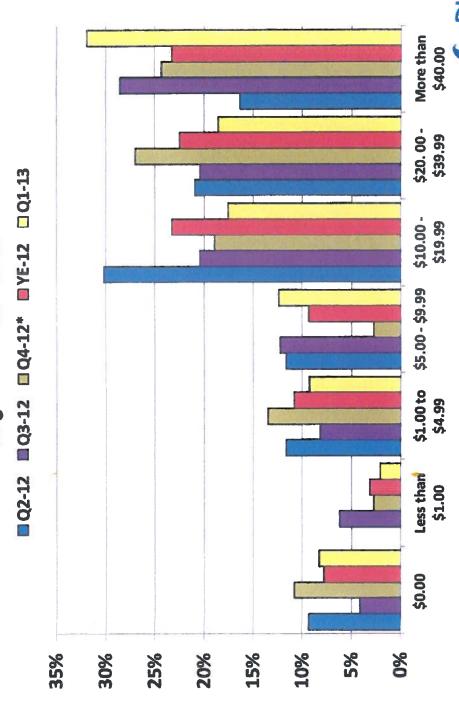
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Non-Regulated Customers



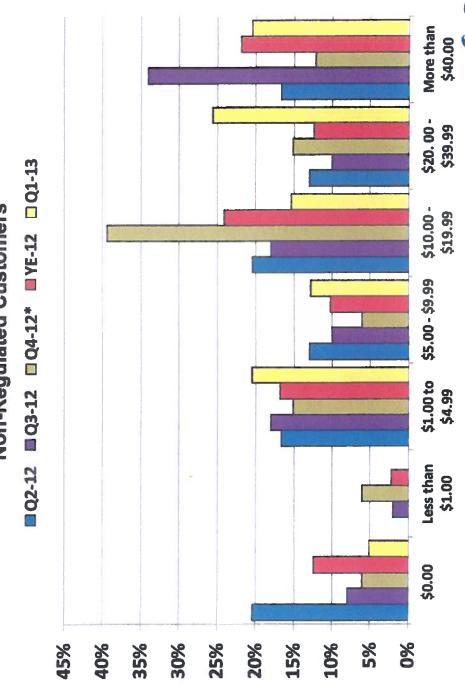
How much of a credit to your electric bill would you require from the utility to allow the electric company to interrupt service to your residence for 2 hours?

Regulated Customers



How much of a credit to your electric bill would you require from the utility to allow the electric company to interrupt service to your residence for 2 hours?

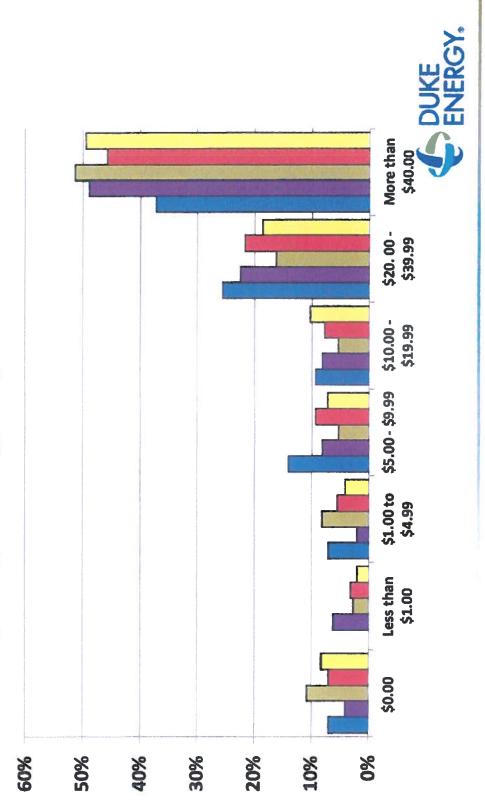
Non-Regulated Customers



How much of a credit to your electric bill would you require from the utility to allow the electric company to interrupt service to your residence for 4 hours?

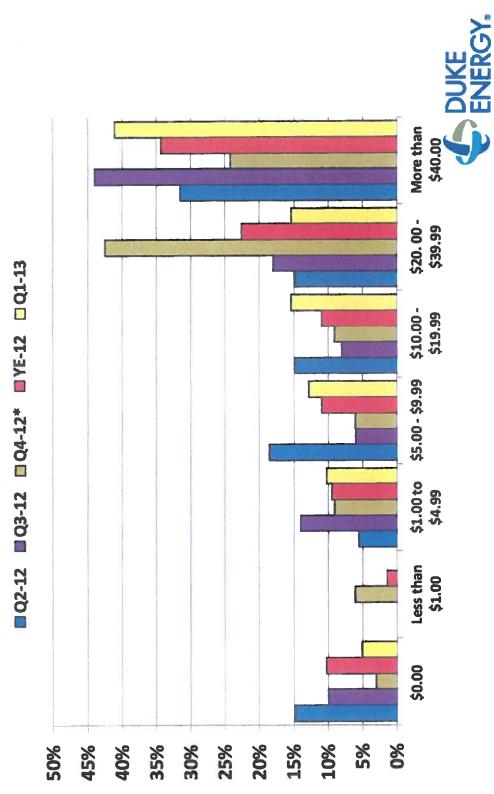




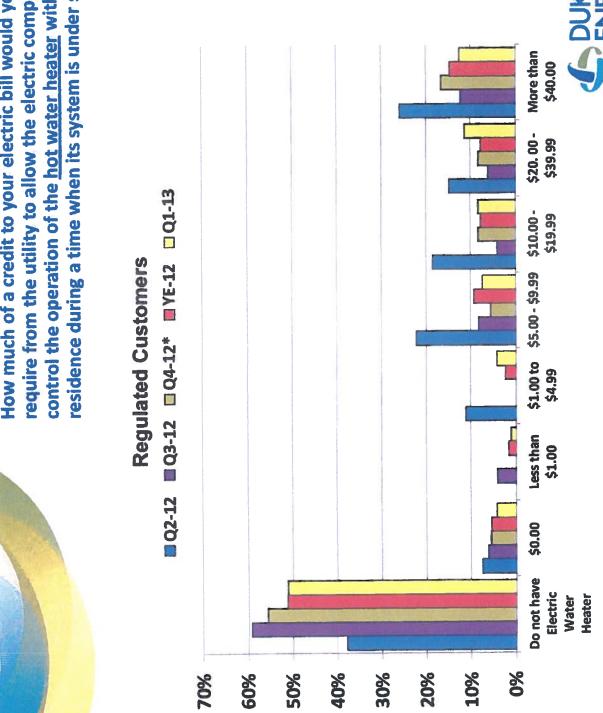


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Non-Regulated Customers

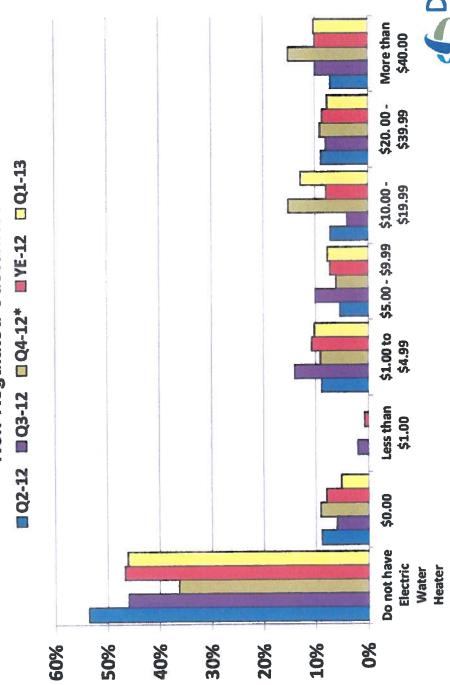


control the operation of the hot water heater within your residence during a time when its system is under stress? require from the utility to allow the electric company to How much of a credit to your electric bill would you



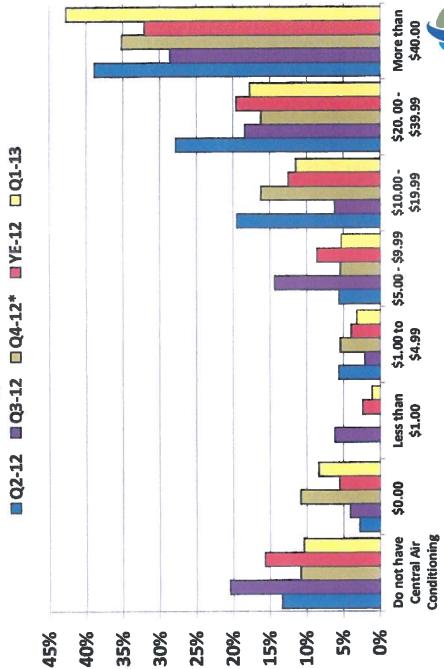
How much of a credit to your electric bill would you require from the utility to allow the electric company to control the operation of the hot water heater within your residence during a time when its system is under stress?





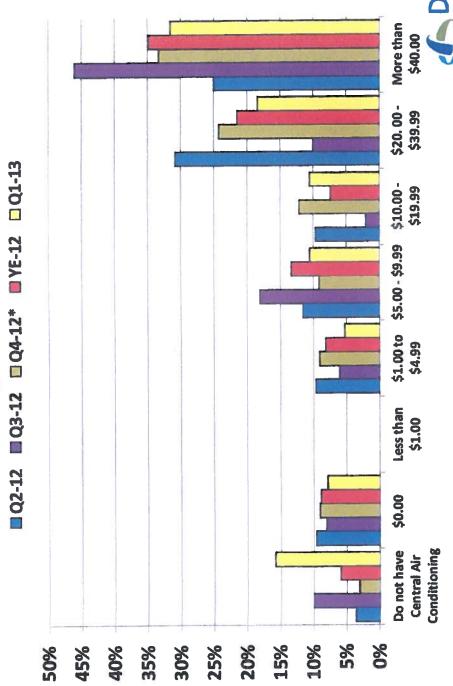
How much of a credit to your electric bill would you require from the utility to allow the electric company to control the operation of the central air conditioning within your residence during a time when its system is under stress?



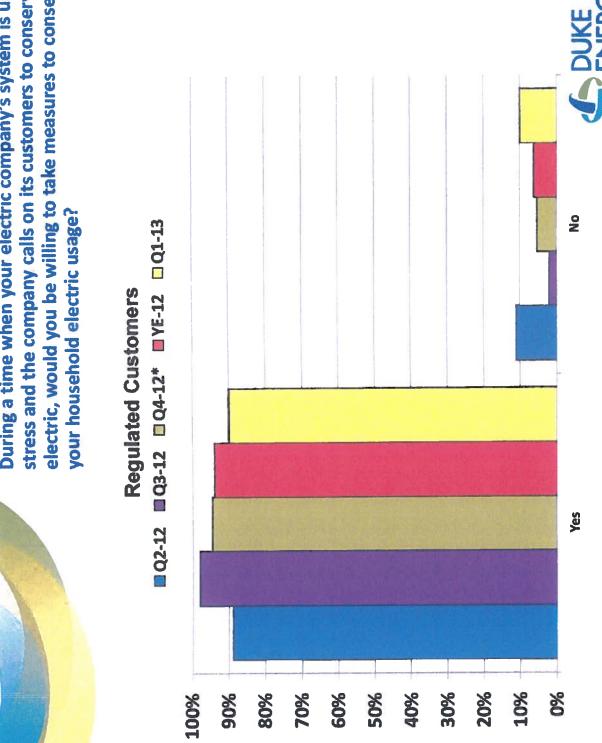


How much of a credit to your electric bill would you require from the utility to allow the electric company to control the operation of the central air conditioning within your residence during a time when its system is under stress?



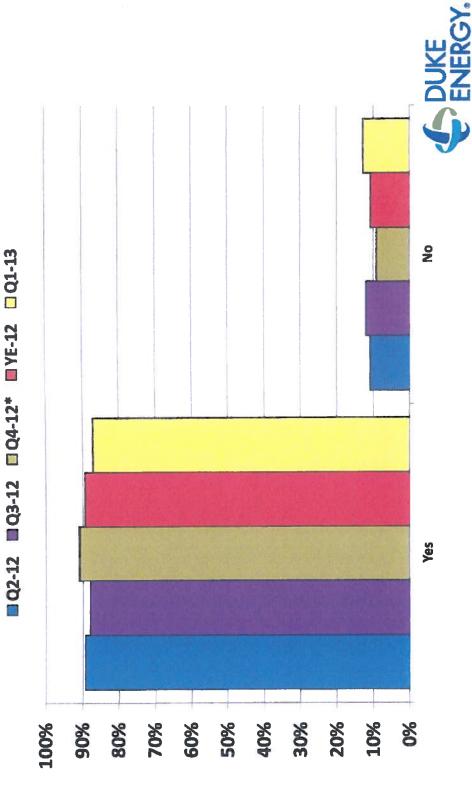


During a time when your electric company's system is under electric, would you be willing to take measures to conserve stress and the company calls on its customers to conserve



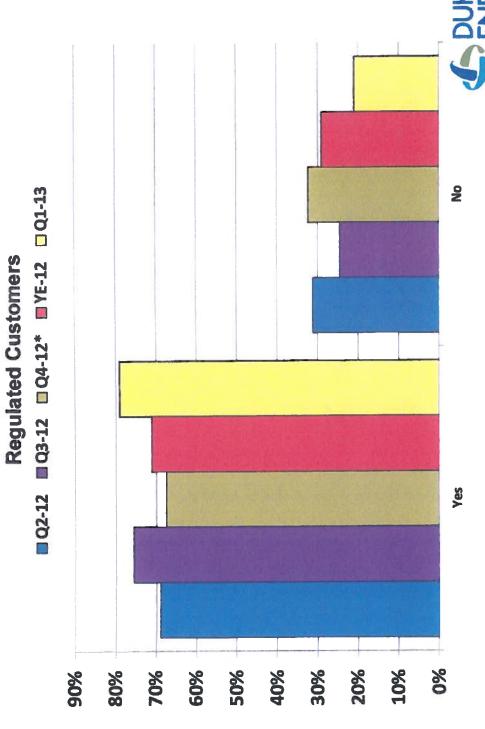
During a time when your electric company's system is under stress and the company calls on its customers to conserve electric, would you be willing to take measures to conserve your household electric usage?





interested in new technology that lets you automate the settings for air conditioning or different appliances to reduce electricity use when the cost to produce and deliver electricity is high? In helping with your energy conservation, would you be





interested in new technology that lets you automate the settings for air conditioning or different appliances to reduce electricity

use when the cost to produce and deliver electricity is high? In helping with your energy conservation, would you be □Q4-12* ■YE-12 □Q-13 Non-Regulated Customers **Q2-12 Q3-12**

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70%

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Yes

10%

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This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

6/28/2013 10:16:28 AM

in

Case No(s). 13-1539-EL-ESS

Summary: Application Duke Energy Ohio, Inc. Customer Perception Survey, Residential electronically filed by Ms. Elizabeth H Watts on behalf of Duke Energy Ohio, Inc.

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Duke Energy Ohio Case No. 14-841-EL-SSO, 14-842-EL-ATA OCC Fourteenth Set Interrogatories Date Received: September 2, 2014

OCC-INT-14-388

REQUEST:

Referring to Duke's response to OCC-INT-234, please explain how the PUCO survey does not meet the standards that Duke employs in administering surveys?

RESPONSE:

The surveys relied upon by the Company are done by J.D. Power, a global market research company. The survey administered by the Company at Staff's direction is one that was created by the Commission Staff. The Company has relied on J.D. Power for a number of years and prefers to continue doing so for consistency. However, the survey developed with Staff is used as required by the Commission's regulations.

PERSON RESPONSIBLE: Marc Arnold

Duke Energy Ohio Case No. 14-841-EL-SSO, 14-842-EL-ATA OCC Eleventh Set Interrogatories Date Received: August 5, 2014

OCC-INT-11-308

REQUEST:

Has Duke conducted any customer surveys to determine to what extent customers are willing to pay higher rates in order to get better service quality?

RESPONSE:

No.

PERSON RESPONSIBLE:

Marc Arnold

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

9/26/2014 2:16:09 PM

in

Case No(s). 14-0841-EL-SSO, 14-0842-EL-ATA

Summary: Testimony Direct Testimony of James D. Williams on Behalf of the Office of the Ohio Consumers' Counsel electronically filed by Ms. Deb J. Bingham on behalf of Grady, Maureen R. Ms.