

FILE

BEFORE THE
PUBLIC UTILITIES COMMISSION OF OHIO

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In the Matter of the Application of Duke)
Energy Ohio, Inc., for Approval of its) Case No. 13-0431-EL-POR
Energy Efficiency and Peak Demand)
Reduction Portfolio of Programs.)

DUKE ENERGY OHIO, INC.'S APPLICATION
FOR ENERGY EFFICIENCY AND PEAK DEMAND REDUCTION
PORTFOLIO OF PROGRAMS

I. Introduction

Now comes Duke Energy Ohio, Inc, (Duke Energy Ohio) pursuant to Rule 4901:1-39-04, Ohio Administrative Code (O.A.C.), and submits its proposed portfolio of energy efficiency and demand reduction programs. Duke Energy Ohio is an electric distribution utility as defined in R.C. 4928.01 (A)(6), and is therefore required by R.C. 4928.66, *et seq.*, to implement energy efficiency and peak demand reduction programs designed to achieve energy savings.

Duke Energy Ohio submitted its last energy efficiency and peak demand reduction portfolio for approval by the Public Utilities Commission of Ohio (Commission) on July 20, 2011. The Commission approved the portfolio on August 15, 2012. In the Commission's Opinion and Order, the Company was directed to file a new portfolio of programs to align its portfolio with its cost recovery mechanism in April of 2013. In compliance with the Commission's Order in Case No. 11-4393-EL-RDR, and the requirements set forth in Rule 4901:1-39-04 (A), O.A.C., Duke Energy Ohio submits its application for approval of a new portfolio.

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4901:1-39-04(C) (1) Executive Summary

Duke Energy Ohio has a long history of implementing energy efficiency and peak demand reduction programs. In 1992, Duke Energy Ohio formed a collaborative to develop and implement energy efficiency programs to help reduce the electrical demand of customers. The Company has worked effectively with its Collaborative since 1992. The Company has continuously offered energy efficiency programs for its customers.

In 2006, Duke Energy Ohio filed an application with the Public Utilities Commission of Ohio (Commission), seeking approval to implement a new expanded set of energy efficiency programs.¹ On July 11, 2007, the Commission approved the new set of energy efficiency programs for implementation.² As part of the proceeding on the Company's Electric Security Plan (ESP) in 2008, the Company filed an application for approval to implement its save-a-watt set of energy efficiency programs.³ As noted earlier, the Company filed the proposed programs on July 31, 2008, and the Commission subsequently approved the save-a-watt set of programs on December 17, 2008, for implementation for the years 2009 through 2011.⁴ On December 29, 2009, the Company filed an updated portfolio plan for approval.⁵ The portfolio, except for pre-paid metering, was approved on December 15, 2010, for implementation through April 15, 2013.⁶

In 2011, in an earlier attempt to bridge the gap between the misalignment of its portfolio plan approved in Case No. 09-1999-EL-POR, and its expiring save-a-watt recovery model, Duke

¹ *In the Matter of the Application for Recovery of Costs, Lost Margin, and Performance Incentive Associated with the Implementation of Electric Residential Demand Side Management Programs by the Cincinnati Gas & Electric Company*, Case No. 06-91-EL-UNC, Application (January 24, 2006)

² *Id.* Opinion and Order, (July 11, 2007)

³ *In re Duke Energy Ohio's Application for an SSO*, Case No. 08-920-EL-SSO, et seq., Application, (July 31, 2008)

⁴ *In re Duke Energy Ohio's Application for an SSO*, Case No. 08-920-EL-SSO, et seq., Opinion and Order, (December 17, 2008)

⁵ *In re Duke Energy Ohio's Application for a POR*, Case No. 09-1999-EL-POR, Application, (December 29, 2009)

⁶ *In re Duke Energy Ohio's Application for a POR*, Case No. 09-1999-EL-POR, Opinion and Order, (December 15, 2010)

Energy Ohio submitted an energy efficiency portfolio and cost recovery mechanism to the Commission for its approval in Case No. 11-4393-EL-RDR, *et al.* The Company was able to resolve most of the substantive issues in its application with most of the parties, in a Stipulation and Recommendation that was filed with the Commission in November, 2011. After receiving further direction from the Commission in its May 9, 2012 Opinion and Order, the Company requested the Commission grant it a waiver of a Rule in Chapter 4901:1-39, O.A.C., and approve its application based upon the information contained. The waiver was granted on August 15, 2012 within the Order approving the implementation of three new programs, as well as a shared savings cost recovery mechanism. The three new approved programs were, 1) Low Income Neighborhood Program, 2) Appliance Recycling, and 3) Home Energy Solutions.

With this Application, the Company seeks approval pursuant to 4901:1-39-04 O.A.C., for a new portfolio of energy efficiency and peak demand reduction programs. Also included in this application is a request for a one-year extension of the approved shared savings cost recovery mechanism approved in the Opinion and Order in Case No. 11-4393-EL-RDR. As stated in the Opinion and Order, the Company is required to align the cost recovery mechanism with the portfolio of programs. A one year extension of the shared savings cost recovery mechanism would align with the portfolio with both expiring on December 31, 2016. The portfolio of programs herein has been reviewed with the Duke Energy Community Partnership Collaborative (DECP or Collaborative). The Collaborative was also given an overview of the results from the assessment of potential study on February 7, 2013 that was filed in these proceedings on February 19, 2013.

In support of its Application, Duke Energy Ohio also submits testimony in this proceeding. Duke Energy Ohio witness Timothy J. Duff provides an overview of the

Application, the relevant incentive and recovery mechanism, and the PJM Capacity Auction. Duke Energy Ohio witness Ashlie J. Ossege describes the details of the new portfolio with respect to cost effectiveness and measurement and verification of outcomes. Duke Energy Ohio witness Casey Mather explains residential program implementation, Duke Energy Ohio witness Kevin A. Bright discusses the non-residential program implementation and Duke Energy Ohio witness James E. Ziolkowski testifies concerning revenue requirements and rate implementation.

The following programs were proposed and approved by the Commission in the Company's program portfolio plan, Case No. 11-4393-EL-RDR, and are currently being offered.⁷ The Company proposes to continue these programs, in addition to adding a new non-residential program, Energy Management and Information Services, and adding additional measures to the Smart Saver[®] Residential program.

Residential Programs

Smart Saver[®] Residential

Residential Energy Assessments

Home Energy Comparison Report

Energy Efficiency Education Program for Schools

Low Income Services

Power Manager

Appliance Recycling Program

Low Income Neighborhood Program

Home Energy Solutions

⁷ *In re Duke Energy Ohio's Application for a RDR*, Case No. 11-4394-EL-RDR, Opinion and Order, (August 15, 2012)

Non-Residential Programs

Smart \$aver[®] Prescriptive

Smart \$aver[®] Custom

Smart \$aver[®] Energy Assessments

PowerShare[®]

Energy Management and Information Services

This portfolio of programs represents a comprehensive peak demand reduction and energy efficiency plan of action. The approach being pursued through the continuation of existing programs, introduction of a new proposed program and the addition of multiple new measures and provide market access for cost-effective demand reduction and energy efficiency for all customer classes. In addition to the Company proposed programs, Duke Energy Ohio also offers the Self Direct program available to qualifying Mercantile customers.

Implementation of Duke Energy Ohio's portfolio of programs is expected to enable Duke Energy Ohio to meet or exceed the statutory benchmarks for peak demand reduction and energy efficiency for the timeframe of this portfolio, January 1, 2014 – December 31, 2016.

In compliance with the requirements of 4901:1-39, O.A.C, included in this filing is an updated Assessment of Potential. Duke Energy Ohio completed an energy efficiency market potential study, *The Market Assessment and Action Plan for Electric DSM Programs*⁸, that was prepared by Forefront Economics Inc. and H. Gil Peach & Associates LLC to address any potential gaps in its program offerings on January 07, 2013.

"The Market Assessment and Action Plan for Electric DSM Programs" (market potential study) identifies levels of technical, economic, and achievable market potential. The results are compared with the programs previously developed through the Collaborative process and

⁸ Filed on February 19, 2013 in Case No. 13-0431-EL-POR

adjustments will be made to the programs as necessary based on these findings. Exhibit 1 lists the measures identified in the market potential study, a description of each measure and how Duke Energy Ohio's portfolio plan addresses incorporating the measure. Additional program offerings may be filed with the Commission to seek approval, as appropriate.

4901:1-39-04(C) (2) Stakeholder Participation

As noted above, Duke Energy Ohio works closely and cooperatively with external stakeholders through the Collaborative process. The Company's energy efficiency Collaborative first began in 1992. Since that time, the Company has continued to engage with its Collaborative members on the design and operation of existing programs as well as ideas for new programs. Duke Energy Ohio seeks to obtain consensus approval from the Collaborative on proposals to be filed with the Commission. This same approach was employed in the development of the Company's current programs, which were filed and subsequently approved by the Commission for implementation through December 31, 2013, and was used with respect to the portfolio of programs that the Company is requesting approval of in this application.

4901:1-39-04 (C) (3) Other Public Utilities' Programs

Although Duke Energy Ohio does not coordinate its programs with the other public utilities, it does participate in ongoing dialogue with some of the other utilities to understand both the successes and challenges associated with each company's portfolios of programs. The Company does coordinate the design and implementation of its programs with its affiliate utility located in Northern Kentucky as well as with all other utility affiliates of Duke Energy (Duke Energy Kentucky, Duke Energy Indiana, and Duke Energy Carolinas).

4901:1-39-04 (C) (4) Existing Programs

Duke Energy Ohio began implementation of its existing programs on August 15, 2012. Below, the Company provides the response to the requested items for each of the existing previously approved programs as well as a description of a proposed program and additional information as required by O.A.C. 4901:1039-04(C)(5).

New Proposed Programs

The Company is proposing one new program within this application. The program is called "Energy Management and Information Services". This program was presented to the Collaborative in fourth quarter 2012. Information related to this new proposed program is discussed in the testimony of Duke Energy Ohio witness Kevin Bright, included with this Application.

Descriptions Applicable to All Programs

In Rule 4901:1-39-04 (C)(5)(a) to (l), O.A. C., there are a few elements for which the response is essentially the same for all of the existing and new programs. These are the information requests under Rule 4901:1-39-04 (C)(5)(d), (e), (k), (l), O.A.C. The common responses are provided below.

Rule 4901:1-39-04(C)(5)(d) O.A.C.: The Company is seeking implementation approval of three years duration for each program.

Rule 4901:1-39-04(C)(5)(e) O.A.C.: An estimate of the level of program participation is included in the table provided in response to Rule 4901:1-39-04(C)(5)(b) O.A.C.

Rule 4901:1-39-04(C)(5)(k), O.A.C.: For the proposed market transformation activities, if any, which have been identified and proposed to be included in the program portfolio plan, the common response is:

Promoting investment in energy efficiency measures and customer engagement will advance the adoption of energy efficiency measures and behavior. The Company will continue to examine the level of free ridership in each of these programs as a potential indicator of market transformation.

Rule 4901:1-39-04(C)(5)(I) O.A.C.: The evaluation, measurement, and verification plans for each program are provided in Attachment AJO 2, that is included with the testimony of Ashlie J. Ossege.

4901:1-39-04 (B) - Cost Effectiveness of Programs

The cost-effectiveness test results for the new programs are provided below in Table 1 below. Following the table are descriptions of each of the programs proposed for inclusion with the Company's Portfolio.

Table 1:

	Program Cost Effectiveness Test Results**			
	Utility Test	TRC Test	RIM Test	Participant Test
RESIDENTIAL CUSTOMER PROGRAMS				
Appliance Recycling Program	5.06	6.98	2.40	NA
Energy Education Program for Schools	0.75	0.98	0.65	NA
Home Energy Solutions	1.37	1.93	1.26	4.31
Low Income Neighborhood	1.64	2.43	1.21	NA
Low Income Services	0.60	1.66	0.52	NA
My Home Energy Report	2.10	2.10	1.44	NA
Residential Energy Assessments	2.44	2.63	1.55	NA
Smart Saver® Residential	2.34	2.32	1.52	4.76
Power Manager	4.18	5.05	4.18	NA
NON-RESIDENTIAL CUSTOMER PROGRAMS				
Smart Saver® Non-Residential Custom	3.35	1.15	2.24	1.45
Smart Saver® Non-Residential Prescriptive	5.41	2.35	3.27	2.26
Power Share®	2.50	10.77	2.50	NA
NEW PROPOSED PROGRAMS				
Energy Management and Information Services - Pilot	3.29	1.40	2.33	1.60

**Cost Effectiveness is calculated on NPV for life of measure

The following descriptions are in response to the requirements set forth in Rule 4901:1-39-04 (C) (4).

Program Name: Smart Saver[®] Residential

(a) The Smart Saver[®] Program provides incentives to customers, builders, and heating, ventilation and air conditioning (HVAC) dealers and weatherization contractors to promote and install high-efficiency air conditioners and heat pumps with electronically commutated fan motors (ECMs), as well as attic insulation and air sealing, duct sealing and insulation, HVAC tune ups and lighting. These programs are promoted through trade ally outreach and direct communication to customers using numerous channels such as direct mail, community presentations and website promotions. In regard to lighting offers, online promotions and social media have been particularly effective. In addition, the Company is evaluating additional bulb types for the home such as indoor reflector floodlights, globes, candelabras, A-line, dimmables and 3-way lamps etc. The Property Manager Program is an extension of the CFL program and allows Duke Energy to target multi-family apartment complexes.

(b) Regarding the basis for the load impacts, program managers and analysts produce the impact estimates using industry information from a variety of sources, including but not limited to, Morgan Marketing Partners, CleaResult, other utility program information and evaluations, as well as the results of impact and process evaluations (EM&V) performed on specific measures or programs.

An impact evaluation, titled "Process and Impact Evaluation of the Residential Smart Saver[®] Energy Efficiency Products (CFLs) Program in Ohio", September 2012 is provided as AJO Exhibit F. In addition the evaluation titled "Evaluation of the 2009-2010 Residential Smart

Saver[®] HVAC Program in Ohio Results of an Impact Evaluation, January 2012” is provided as AJO Exhibit G.

	2014	2015	2016
kW	2,935	6,181	9,590
kWh	15,326,794	31,958,884	48,747,893
Participants	180,076	374,589	555,355

kW – Gross Cumulative Summer Coincident kW w/losses. kWh – Gross Cumulative kWh w/losses. Participants – Cumulative Participants (refers to number of measures installed)

(c) Residential

(d) Three years (2014 – 2016)

(e) See above (b)

(f) Duke Energy Ohio served homeowners currently residing or building a single family residence, condominium, duplex or mobile home.

The Property Manager program is available to Duke Energy Ohio served apartments on a residential rate.

(g) The Program will be promoted by, but not limited to:

a. Email

b. Bill Messages

c. Bill Envelopes

d. Social Media

e. Direct Mail

f. Printed Collateral

g. Earned Media⁹

h. Other Duke Energy Program collaboration efforts

⁹ Earned media refers to favorable publicity gained through promotional efforts other than advertising.

(h) Third party vendors will be used

(i) The projected program budget:

	2014	2015	2016
Annual Total Utility Costs	\$ 4,012,190	\$ 4,500,115	\$ 4,744,926

(j) Varies by measure

(k) The Company believes promoting investment in energy efficiency measures and customer engagement will advance the adoption of energy efficiency measures and behavior. The Company will continue to examine the level of free ridership in each of these programs as a potential indicator of market transformation.

(l) The EM&V plans for each program are provided in Attachment AJO 2.

Program Name: Residential Energy Assessments

(a) Duke Energy Ohio provides an in-home assessment called Home Energy House Call. Home Energy House Call is promoted primarily through direct mail and targets owner-occupied, single family residences. The targeting also considers geographic location to better align assessor resources to manage costs and maintain a positive customer experience. The assessors are Building Performance Institute, Inc. certified and spend sixty to ninety minutes with customers as they evaluate the home and explain ways to save energy and money. The assessors offer low cost/no cost recommendations that encourage behavioral changes and inform customers about energy efficiency considerations for higher cost investment decisions like new HVAC or appliances. The assessors also install measures from an energy efficiency kit while in the home.

(b) Regarding the basis for the load impacts, an impact evaluation titled "Process and Energy Impact Evaluation of the Home Energy House Call Program in Ohio, May 2011" is provided as AJO Exhibit E.

	2014	2015	2016
kW	1,041	2,197	3,354
kWh	7,388,101	15,598,294	23,808,488
Participants	3,442	7,267	11,092

kW – Gross Cumulative Summer Coincident kW w/losses. kWh – Gross Cumulative kWh w/losses. Participants – Cumulative Participants (refers to number of households participating)

(c) Residential

(d) Three years (2014 – 2016)

(e) See above (b)

(f) Available to individually metered residential customers receiving concurrent service from the Company. On-site assessments are only available to owner-occupied single family residences with at least 4 months of billing history.

(g) Program participation is primarily driven through targeted mailings to pre-qualified residential customers. To supplement this activity and keep acquisition costs low, e-mail marketing will be used when targeted customers have elected to receive offers electronically. Utilizing two different marketing channels will increase awareness levels of the program, thus potentially increasing program participation.

Home Energy House Call program information and an online assessment request form is available at <http://www.duke-energy.com/ohio/savings/home-energy-house-call.asp>.

(h) Various third party vendors are contracted for program administration, customer service/call center support and scheduling, and fulfillment of the energy efficiency kits. A Building Performance Institute (BPI) certified energy specialist conducts the in-home assessment.

(i) The projected program budget:

	2014	2015	2016
Annual Total Utility Costs	\$ 1,200,482	\$ 1,329,197	\$ 1,337,520

(j) Not applicable

(k) The Company believes promoting investment in energy efficiency measures and customer engagement will advance the adoption of energy efficiency measures and behavior. The Company will continue to examine the level of free ridership in each of these programs as a potential indicator of market transformation.

(l) The EM&V plans for each program are provided in Attachment AJO 2, attached to Duke Energy Ohio witness Ashlie J. Ossege's testimony.

Program Name: Home Energy Comparison Report (marketed as My Home Energy Report)

- (a) The Home Energy Comparison Report compares household electric usage to similar, neighboring homes and provides recommendations to lower energy consumption. These normative comparisons are intended to induce an energy consumption behavior change. The Home Energy Comparison Report is sent via direct mail to targeted customers with desirable characteristics who are likely to respond to the information.
- (b) Regarding the basis for the load impacts, the impact estimates for this program are from the most recent EM&V report(s) specific to this program, titled "Process and Energy Impact Evaluation of the Home Energy Comparison Report Program in Ohio, September 2011" and included as AJO Exhibit C.

	2014	2015	2016
kW	18,140	18,177	18,177
kWh	59,197,947	59,318,683	59,318,683
Participants	253,000	253,516	253,516

kW – Gross Cumulative Summer Coincident kW w/losses. kWh – Gross Cumulative kWh w/losses. Participants – Cumulative Participants (refers to number of households participating)

(c) Residential

(d) Three years (2014 – 2016)

(e) See above (b)

(f) The audience is Duke Energy Ohio customers who are identified through demographic information as likely to decrease energy usage in response to the information contained in the My Home Energy Report document. These customers reside in individually-metered, single- family residences receiving concurrent service from the Company.

(g) The Program will be marketed through direct mail. The Company is also exploring the potential of providing the report to customers on-line or via mobile channels.

(h) The My Home Energy Report is sent via direct mail to targeted Duke Energy Ohio customers with desirable characteristics who are likely to respond to the information. The reports are distributed up to 12 times per year; however delivery may be interrupted during the off-peak energy usage months in the fall and spring.

(i) The projected program budget:

	2014	2015	2016
Annual Total Utility Costs	\$ 3,086,156	\$ 3,093,205	\$ 3,095,526

(j) Not applicable

(k) The Company believes promoting investment in energy efficiency measures and customer engagement will advance the adoption of energy efficiency measures and behavior. The Company will continue to examine the level of free ridership in each of these programs as a potential indicator of market transformation.

(l) The EM&V plans for each program are provided in Attachment AJO 2 to Duke Energy Ohio witness Ashlie J. Ossege's testimony.

Program Name: Energy Efficiency Education Program for Schools

(a) This program educates students in the classroom about sources of energy and energy efficiency in homes, and it provides students the ability to conduct an energy audit of their homes. After completing a home energy survey, participants receive an Energy Efficiency Starter Kit. The program is promoted to teachers and school administrators. Classroom material is enhanced by live theatre performances delivered to the entire school.

(b) Regarding the basis for the load impacts, the impact estimates for this program are from the most recent EM&V report(s) specific to this program, titled "Evaluation of Duke Energy Ohio's 2009-2011 'Get Energy Smart' Program in Ohio", December 2011, and included as AJO Exhibit A.

	2014	2015	2016
kW	85	171	264
kWh	965,842	1,931,694	2,988,094
Participants	8,000	16,000	24,750

kW – Gross Cumulative Summer Coincident kW w/losses. kWh – Gross Cumulative kWh w/losses. Participants – Cumulative Participants (refers to number of households participating)

(c) Residential

(d) Three years (2014 – 2016)

(e) See above (b)

(f) Eligible participants include Duke Energy Ohio residential customers who reside in households with school-age children enrolled in public and private schools.

(g) The Program will be promoted by, but not limited to:

a. Direct mail

- b. Email
- c. Printed Collateral
- d. Social Media
- e. Earned media¹⁰

The program focuses on core educational concepts, including:

- How electricity and energy are made
- Resources and uses of energy
- Ways energy is wasted
- How to conserve energy

(h) School principals are the main point of contact and will schedule the performance at their convenience for the entire school. Once the principal has confirmed the performance date and time, two weeks prior to the performance, all materials are delivered to the principal's attention for distribution. Materials include school posters, teacher guides, and classroom and family activity books.

(i) The projected program budget:

	2014	2015	2016
Annual Total Utility Costs	\$ 658,157	\$ 658,761	\$ 733,758

(j) Not applicable

(k) The Company believes promoting investment in energy efficiency measures and customer engagement will advance the adoption of energy efficiency measures and behavior. The Company will continue to examine the level of free ridership in each of these programs as a potential indicator of market transformation.

¹⁰ Earned media refers to favorable publicity gained through promotional efforts other than advertising.

(l) The EM&V plans for each program are provided in Attachment AJO 2, attached to Duke Energy Ohio witness Ashlie J. Ossege's testimony.

Program Name: Low Income Services

- (a) The company offers a refrigerator replacement program that complements weatherization services offered by other parties. The program is available to customers with incomes up to 200 percent of the federal poverty level and may be offered through Community Action Agencies or Non-Governmental Organizations.
- (b) Regarding the basis for the load impacts, the impact estimates for this program are from the most recent EM&V report(s) specific to this program, titled "Evaluation of Duke Energy's Low Income Refrigerator Replacement Program in Ohio, December 2011" and included as AJO Exhibit B.

	2014	2015	2016
kW	17	33	50
kWh	107,938	215,876	323,813
Participants	85	171	256

kW – Gross Cumulative Summer Coincident kW w/losses. kWh – Gross Cumulative kWh w/losses. Participants – Cumulative Participants (refers to number of households participating)

- (c) Low income residential
- (d) Three years (2014 – 2016)
- (e) See above (b)
- (f) Qualified customers must have electric service through Duke Energy Ohio, own their refrigerator, and have a household income equal to or less than 200 percent of poverty level.
- (g) Because the Refrigerator Replacement Program is dependent upon customer participation in the other weatherization programs, all sign ups are handled by local

agencies during the weatherization process. Duke Energy is not currently marketing this program.

(h) A third party vendor will complete the refrigerator replacement and will be paid by the Company.

(i) The projected program budget:

	2014	2015	2016
Annual Total Utility Costs	\$ 113,527	\$ 113,698	\$ 113,871

(j) Not applicable

(k) The Company believes promoting investment in energy efficiency measures and customer engagement will advance the adoption of energy efficiency measures and behavior. The Company will continue to examine the level of free ridership in each of these programs as a potential indicator of market transformation.

(l) The EM&V plans for each program are provided in Attachment AJO 2.

Program Name: Power Manager

(a) This is a voluntary residential load control program that offers incentives to participating customers who allow the Company to cycle their outdoor central air conditioning compressor and fan during peak load periods between May and September.

(b) Regarding the basis for peak demand savings, an annual evaluation is conducted from a sample of the Power Manager participants to determine the capability available from the Power Manager customers and applied for that year.

	2014	2015	2016
kW	50,503	52,550	53,619
kWh	NA	NA	NA
Participants	51,944	54,049	55,149

kW –Cumulative Summer Coincident kW w/losses. Participants –kW load reduction at the meter and prior to operability adjustments.

(c) Residential

(d) Three years (2014 – 2016)

(e) See above (b)

(f) This program is available to Duke Energy Ohio residential customers residing in owner-occupied, single-family residences with a functioning outdoor air conditioning unit.

(g) The Program may be promoted by, but not limited to:

a. Direct mail

b. Telemarketing

c. Promotion through other Duke Energy programs

d. Electronic channels such as Duke Energy's website and email.

(h) A device is installed on participating customer air conditioning units by a vendor contracted by Duke Energy Ohio. Once installed, the customer's A/C unit can be cycled off and back on during Power Manager events (May – September).

(i) The projected program budget:

	2014	2015	2016
Annual Total Utility Costs	\$ 1,929,361	\$ 1,994,626	\$ 1,875,440

(j) Not applicable

(k) The Company believes promoting investment in energy efficiency and demand response measures and customer engagement will advance the adoption of energy efficiency and demand response measures and behavior.

(l) The EM&V plans for each program are provided in Attachment AJO 2.

Program Name: Appliance Recycling Program

(a) The Appliance Recycling program will encourage customers to responsibly dispose of older, functional but inefficient refrigerators and freezers. These are typically second or third units in the home. Customers will have the old unit picked up at their home at no charge and will receive an incentive for participating. Disposed units will have 95 percent of material recycled with only 5 percent entering landfills.

(b) Regarding the basis for the load impacts, program managers and analysts produce the impact estimates using industry information from a variety of sources, including but not limited to, Morgan Marketing Partners, CleaResult, and/or other utility program information and evaluations. Over time, as impact and process evaluations are performed on this program, information and input specifically related to this program will be used within future cost-effectiveness analyses.

	2014	2015	2016
kW	2,189	4,378	6,566
kWh	8,135,751	16,271,502	24,407,254
Participants	4,875	9,750	14,625

kW – Gross Cumulative Summer Coincident kW w/losses. kWh – Gross Cumulative kWh w/losses. Participants – Cumulative Participants (refers to number of appliances)

(c) Residential

(d) Three years (2014 – 2016)

(e) See above (b)

(f) The audience is Ohio residential Duke Energy customers that own one or more second refrigerators and/or freezers currently in use. These residential customers reside in individually-metered, residences receiving concurrent service from the Company.

(g) Program marketing will consist of direct mail, social media, and community presentations and publications like newsletters. Point of sale messaging may also be pursued with prominent appliance retailers. Customers will receive a \$30 incentive check for each of their qualifying appliance up to two units per year. Appliance pick up and recycling is free to Duke Energy Ohio customers.

(h) Third party vendors will be used

(i) The projected program budget:

	2014	2015	2016
Annual Total Utility Costs	\$ 705,666	\$ 710,700	\$ 711,883

(j) Not applicable

(k) The Company believes promoting investment in energy efficiency measures and customer engagement will advance the adoption of energy efficiency measures and behavior. The Company will continue to examine the level of free ridership in each of these programs as a potential indicator of market transformation.

(l) The EM&V plans for each program are provided in Attachment AJO 2, attached to Duke Energy Ohio witness Ashlie J. Ossege's testimony.

Program Name: Low Income Neighborhood Program

(a) The Duke Energy Ohio Neighborhood Program takes a non-traditional approach to serving income-qualified areas of the Duke Energy Ohio service territory. The program engages targeted customers with personal interaction in a familiar setting. Ultimately, the program aims to reduce energy consumption by directly installing measures and educating the customer on better ways to manage their energy bills.

(b) Regarding the basis for the load impacts, program managers and analysts produce the impact estimates using industry information from a variety of sources, including but not

limited to, Morgan Marketing Partners, CleaResult, and/or other utility program information and evaluations. Over time, as impact and process evaluations are performed on this program, information and input specifically related to this program will be used within future cost-effectiveness analyses.

	2014	2015	2016
kW	339	679	1,018
kWh	1,261,802	2,523,604	3,785,406
Participants	1,339	2,678	4,017

kW – Gross Cumulative Summer Coincident kW w/losses. kWh – Gross Cumulative kWh w/losses. Participants – Cumulative Participants (refers to number of households participating)

(c) Low Income Residential

(d) Three years (2014 – 2016)

(e) See above (b)

(f) This program will be available to both homeowners and renters occupying single family and multi-family dwellings in the target neighborhoods that have electric service provided by Duke Energy Ohio.

(g) The marketing strategy for this program will focus on a grassroots approach. The Program will be promoted by, but not limited to:

- a. Direct mail
- b. Social media
- c. Door hangers
- d. Press releases
- e. Community presentations and partnerships
- f. Inclusion in community publications such as newsletters, etc

(h) Third party vendors will be used

(i) The projected program budget:

	2014	2015	2016
Annual Total Utility Costs	\$ 505,108	\$ 505,291	\$ 505,627

(j) Not applicable

(k) The Company believes promoting investment in energy efficiency measures and customer engagement will advance the adoption of energy efficiency measures and behavior. The Company will continue to examine the level of free ridership in each of these programs as a potential indicator of market transformation.

(l) The EM&V plans for each program are provided in Attachment AJO 2, attached to Duke Energy Ohio witness Ashlie J. Ossege's testimony.

Program Name: Home Energy Solutions

(a) Home Energy Solutions is an approach to delivering energy efficiency solutions designed to offer customers energy savings and the ability to participate in demand response programs. Utilizing smart grid enabled consumer technology; this program provides customers with an engagement and energy management platform and the functionality to potentially enable a variety of demand response opportunities that will allow customers to realize significant benefits. The energy management platform will allow customers to potentially integrate and manage the energy consumption of a number of devices in the home, offering customers critical feedback and the potential for demand response applications for high use energy devices. Examples include:

- Thermostats
- Electric Water Heaters
- Pool/Spa Pumps

This capability has the potential to expand to include other device types over time, such as electric vehicle charging stations and smart appliances, where available. Customers will have the capability to set preferences on how and when these devices use energy based upon their personal comfort, energy savings goals and the current energy rate. Customers will also have remote access to their engagement platform and energy management system via a web browser and smart phones. The program is designed to increase customer engagement and understanding of their energy consumption. Additionally, including this product in the portfolio has the potential to increase customer interest in participating in time differentiated pricing opportunities.

(b) Regarding the basis for the load impacts, program managers and analysts produce the impact estimates using industry information from a variety of sources, including but not limited to, Morgan Marketing Partners, CleaResult, and/or other utility program information and evaluations. Over time, as impact and process evaluations are performed on this program, information and input specifically related to this program will be used within future cost-effectiveness analyses.

	2014	2015	2016
kW	532	4,062	9,012
kWh	843,112	6,435,752	14,276,690
Participants	1,440	10,992	24,384

kW – Gross Cumulative Summer Coincident kW w/losses. kWh – Gross Cumulative kWh w/losses. Participants – Cumulative Participants (refers to number of households participating)

(c) Residential

(d) Three years (2014 – 2016)

(e) See above (b)

(f) The audience is residential Duke Energy Ohio customers. These customers reside in individually-metered, owner-occupied, single-family residences receiving concurrent service from Duke Energy Ohio. In addition, customers are required to have a broadband internet connection, central heating/AC system and 12 months of historical energy usage information. Any customer meeting these requirements is eligible for the program.

(g) The marketing strategy for this program will follow a more traditional consumer electronics industry model. The Program will be promoted by, but not limited to:

- a. Direct mail
- b. Email/online marketing
- c. Social media
- d. Press releases
- e. Radio/TV advertisements
- f. Print advertisements

(h) Third party vendors will be used

(i) The projected program budget:

	2014	2015	2016
Annual Total Utility Costs	\$ 1,291,536	\$ 6,251,543	\$ 8,376,318

(j) The full extent of the direct customer costs associated with this program is not fully known at this time. Duke Energy Ohio is in the process of selecting a third party vendor to administer the program, which will ultimately determine the amount of incentive that the Company will be able to provide to offset the equipment cost necessary for participation. The amount of the incentive is not determined at this time but will be implemented at a level that retains the cost effectiveness of the program.

(k) The Company believes promoting investment in energy efficiency measures and customer engagement will advance the adoption of energy efficiency measures and behavior. The Company will continue to examine the level of free ridership in each of these programs as a potential indicator of market transformation.

(l) The EM&V plans for each program are provided in Attachment AJO 2.

Program Name: Non-Residential Smart Saver® Prescriptive

(a) The Smart Saver® Prescriptive program consists of over 250 measures including but not limited to the five broad technology categories of: Lighting, HVAC, Motors/Pumps/Drives, Energy Star Food Service Equipment, and Process Equipment. The incentives offered are designed to offset a portion of the capital cost of moving to higher efficiency equipment. Incentives are also offered to offset the cost of proactive maintenance on existing equipment. The incentive amounts are known to the customer before they undertake their project, so the customer can proceed with their project and submit documentation after installation.

(b) Regarding the basis for the load impacts, program managers and analysts produce the impact estimates using industry information from a variety of sources, including but not limited to, Morgan Marketing Partners, CleaResult, other utility program information and evaluations, as well as the results of impact and process evaluations (EM&V) performed on specific measures or programs. The evaluation titled “Evaluation of the Non-Residential Smart Saver® Prescriptive Program in Ohio Results of a Process and Impact Evaluation, August 2010” is provided in AJO Exhibit D.

	2014	2015	2016
kW	10,273	21,091	31,447
kWh	54,546,177	112,442,246	170,492,831
Participants	418,085	859,052	1,286,797

kW – Gross Cumulative Summer Coincident kW w/losses. kWh – Gross Cumulative kWh w/losses. Participants – Cumulative Participant (refers to number measures installed)

(c) Commercial, industrial and government facilities

(d) Three years (2014 – 2016)

(e) See above (b)

(f) All non-residential customers served by Duke Energy in Ohio are eligible for the Smart Saver[®] program. Although customers may choose to opt-out of the Duke Energy program and energy efficiency rider, none of its customers have selected to opt out to date.

(g) The Program will be promoted by, but not limited to:

a. Existing market channels, equipment providers and contractors.

b. Email

c. Newsletters

d. Direct Mail

e. Duke Energy website

f. Account and Segment Managers

(h) The program offers predefined incentives based on current market assumptions and Duke Energy's engineering analysis. The eligible measures, incentives and requirements for both equipment and customer eligibility are listed in the applications posted on Duke Energy Ohio's Business and Large Business websites for each technology type.

(i) The projected program budget:

	2014	2015	2016
Annual Total Utility Costs	\$ 5,557,415	\$ 5,948,166	\$ 6,386,117

(j) Varies by measure

(k) The Company believes promoting investment in energy efficiency measures and customer engagement will advance the adoption of energy efficiency measures and

behavior. The Company will continue to examine the level of free ridership in each of these programs as a potential indicator of market transformation.

(l) The EM&V plans for each program are provided in Attachment AJO 2.

Program Name: Smart Saver[®] Custom

(a) The Smart Saver[®] Custom program is intended to capture quantifiable energy savings from projects that do not fit into the Prescriptive portfolio. A key difference between the Prescriptive and Custom programs is that the current Custom program requires that the customer submit an application before they begin their project. Proposed energy efficiency measures may be eligible for Custom Incentives if they clearly reduce electrical consumption and/or demand. Application forms are available on the Duke Energy website under the Smart Saver[®] Incentives Business and Large Business tabs. Once a project is submitted, it undergoes a technical review to validate the viability of the technology and the reasonableness of the energy savings claims. After the technical review, the energy savings are modeled against the customers load profile (or a representative load profile) to calculate the avoided energy and avoided capacity associated with the installation. At this point, the customer is tendered an incentive offer. Provided the customer acknowledges acceptance of the offer and completes the project, the customer is issued an incentive check after providing documentation showing completion of the project. Duke Energy Ohio reserves the right to adjust the incentive amount paid either up or down should the installation deviate from what was originally submitted. Potential incentive amounts are based on the avoided energy and avoided capacity produced by the measure(s).

Additionally, Duke Energy continually considers program process improvements that might enable greater participation. One such anticipated change is calculation assistance for

customers that have proposed energy efficiency projects of sufficient value, as determined by Duke Energy, but that lack internal or other resources to perform the engineering calculations required by the Custom Incentive program.

Both the Smart Saver[®] Prescriptive and Custom programs allow for customers to either receive their incentive checks directly, or to assign them to a vendor, provided the vendor reduces the amount invoiced to the customer by the amount of the incentive.

(b) Regarding the basis for calculating energy savings and peak demand reduction, the technical review feature of the program serves to uniquely evaluate each project for its energy and capacity savings based on standard engineering methods for calculating and/or modeling energy savings against the appropriate baseline for the energy conservation measure(s) within the proposed customer project. The values presented below are based on historical program participation, impacts per customer project as identified in the technical review for historical projects and anticipated program growth.

	2014	2015	2016
kW	3,330	6,827	10,498
kWh	29,173,257	59,805,176	91,968,691
Participants	19,509	39,994	61,503

kW – Gross Cumulative Summer Coincident kW w/losses. kWh – Gross Cumulative kWh w/losses. Participants – Cumulative Participants (refers to number of measures installed)

(c) Commercial, industrial and government facilities

(d) Three years (2014 – 2016)

(e) See above (b)

(f) All Duke Energy Ohio non-residential customers who have not opted out are eligible to receive Custom Incentives.

(g) Program promotional channels will include, but not be limited to:

- a. Equipment providers, contractors, engineering firms and other trade allies.
- b. Email
- c. Newsletters
- d. Direct Mail
- e. Duke Energy website
- f. Account and Segment Managers

As described in section (a), incentives are based on avoided energy and capacity of the project and serve to aid customers in overcoming financial hurdles to implementing projects.

(h) The Custom Incentive Program was implemented in 2009 and will continue forward as an ongoing program with processes as described in section (a).

(i) The projected program budget:

	2014	2015	2016
Annual Total Utility Costs	\$ 4,823,123	\$ 5,244,677	\$ 5,705,799

(j) Varies by measure

(k) The Company believes promoting investment in energy efficiency measures and customer engagement will advance the adoption of energy efficiency measures and behavior. The Company will continue to examine the level of free ridership in each of these programs as a potential indicator of market transformation.

(l) The EM&V plans for each program are provided in Attachment AJO 2.

Program Name: Smart Saver[®] Assessments

(a) The Smart Saver[®] Assessments program purpose is to assist non-residential customers in assessing their current or planned energy usage and providing recommendations for more

efficient use of energy. The program will also help identify those customers who could benefit from other Duke Energy Ohio Energy Efficiency non-residential programs.

(b) All impacts captured as a result of Energy Assessment recommendations are assumed to be captured and recorded in Duke Energy Ohio's non-residential incentive programs.

	2014	2015	2016
kW	NA	NA	NA
kWh	NA	NA	NA
Participants	NA	NA	NA

(c) Commercial, industrial and government facilities

(d) Three years (2014 – 2016)

(e) Participation from customers who receive an energy assessment and elect to implement recommendations is captured in other non-residential programs.

(f) All Duke Energy Ohio non-residential customers who have not opted out are eligible. Duke Energy reserves the right to decline to participate in an assessment if the Company believes there is not sufficient opportunity to justify the cost of an assessment.

(g) Promotional channels will include, but not be limited to:

a. Duke Energy Ohio website

b. Account and Segment Managers

Duke Energy Ohio shares in the cost of energy assessments. Additionally, Duke Energy Ohio may provide some reimbursement of the customer's portion of the assessment costs, where applicable, if projects are implemented as a result of recommendations in the assessment report.

(h) Assessments will be provided by Duke Energy Ohio or a qualified third party.

(i) Program costs as a result of Energy Assessment recommendations are recorded in Duke Energy Ohio's non-residential incentive programs.

(j) Varies by audit type

(k) The Company believes promoting investment in energy efficiency measures and customer engagement will advance the adoption of energy efficiency measures and behavior.

(l) The EM&V plans for each program are provided in Attachment AJO 2.

Program Name: PowerShare®

(a) PowerShare® is Duke Energy Ohio's demand response program offered to commercial and industrial customers. The program offers various options for customers to choose from.

(b) Regarding the basis for peak demand savings, an annual evaluation is conducted on participants to determine the capability available from the PowerShare® customers and applied for that year.

	2014	2015	2016
kW	37,395	38,463	39,532
kWh	NA	NA	NA
Participants	35,000	36,000	37,000

kW – Cumulative Summer Coincident kW w/losses. Participants – kW load reduction at the meter

(c) Non-residential customers

(d) Three years (2014 – 2016)

(e) See above (b)

(f) All non-residential customers who are able to meet the load shedding requirements.

(g) The Program will be promoted by, but not limited to:

a. Account and Segment Managers

(h) In the QuoteOption portion of the program, customers receive notice of a price offer from Duke Energy Ohio to reduce load. Based on the price offered, the customer makes the decision as to whether or not they will reduce load. If a customer elects not to reduce load,

there are no penalties for declining participation in the event. Participation is purely voluntary. The customer only receives a credit for the number of kilowatt-hours they reduced during the event, multiplied by the price offered by Duke Energy Ohio.

Under the CallOption program, customers receive a monthly credit for providing Duke Energy Ohio with the right to call on the customers load during emergency situations. Each of the CallOption offers contain an emergency provision wherein the customer agrees to provide a maximum number of interruptions for curtailments initiated by the Regional Transmission Operator, PJM Interconnection, Inc., (PJM). The maximum number of events is dictated by PJM, and is currently 10. But, the customer also has the option to agree to provide load for economic events. Under the CallOption program, the customer agrees to a predetermined price at which Duke Energy Ohio has the right, but not the obligation, to initiate an event. If an economic event is called, the customer receives an energy credit for reducing load during the event that is equal to the predetermined price for energy, less the base cost of energy that is embedded in their rate.

(i) The projected program budget:

	2014	2015	2016
Annual Total Utility Costs	\$ 1,697,879	\$ 2,199,609	\$ 2,336,153

(j) Not applicable

(k) The Company believes promoting investment in energy efficiency and demand response measures and customer engagement will advance the adoption of energy efficiency and demand response measures and behavior.

(l) The EM&V plans for each program are provided in Attachment AJO 2.

The following descriptions are in response to 4901:1-39-04 (C) (5).

Additional Program

With respect O.A.C. Rule 4901:1-39-03(B) Program Design Criteria:

Energy Management and Information Services (EMIS) - Pilot

(1) Cost Effectiveness

	Utility Test	TRC Test	RIM Test	Participant Test
EMIS	3.29	1.40	2.33	1.60

(2) Participating customers will have the opportunity to realize several key benefits by participating in the EMIS program: (a) reduce their energy consumption and cost; (b) increase awareness of how their buildings are using energy and whether or not that usage is efficient; (c) implement low cost energy saving operational measures typically related to building control systems; (d) optimize their control system strategies; (e) gain access to benchmarking data for similar buildings; and (f) interact with energy analysts on a regular basis who will provide energy consulting expertise. The participating customers will in turn provide significant energy and capacity benefits benefitting the entire system including non-participating customers.

(3) In order to enter into the EMIS pilot program, customer eligibility requirements include the following criteria:

A. The program is available to existing individually metered non-residential buildings occupied by a commercial business or institutional customer that cannot be classified as new construction. A landlord consent agreement must be executed when the customer does not own the occupied facility.

B. The building space must fall into one of the following categories: office space (private, commercial real estate, government, institutional, manufacturing), college/university (e.g., individually metered administrative and classroom buildings), small hospitals (less than 7,000,000 kWh/year) and medical office buildings, large retail (big box or anchor stores), K-12 schools.

C. Since the EMIS vendor receives its interval data from Duke Energy's centralized meter data management system, the building must have a Duke Energy billing meter associated with the building.

D. Annual electric expenditure greater than \$60,000 or annual energy usage greater than 850,000 kWh.

E. The customer must have an existing building management system (BMS) or other form of central control of HVAC equipment.

Duke Energy Ohio has used a fairly conservative customer adoption rate of 17% cumulative participation of the eligible market through 7 years for the EMIS program. Adoption rates could increase through additional marketing efforts as well as through referrals and "word of mouth" sales by participating customers.

(4) Regarding the basis for the load impacts, program managers and analysts produce the impact estimates using industry information from a variety of sources, including but not limited to, Morgan Marketing Partners, CleaResult, and/or other utility program information and evaluations. Over time, as impact and process evaluations are performed on this program, information and input specifically related to this program will be used within future cost-effectiveness analyses. Based on the projected participation, the

forecasted energy savings and peak demand reduction associated with the EMIS program are summarized in the table below:

	2014	2015	2016
Gross Cumulative Summer Coincident kW w/Losses	384	384	384
Gross Cumulative kWh w/Losses	1,776,983	1,776,983	1,776,983
Cumulative Participants (Note 1)	1,806	1,806	1,806

Notes

1. Each participate represents 1,000 square feet of heated/cooled building area

The EM&V plans for each program are provided in Attachment AJO 2, attached to Duke Energy Ohio witness Ashlie J. Ossege's testimony.

(5) The EMIS program will have several non-energy benefits. First, customer satisfaction will likely increase because the customers will now have 24/7 internet-based access to their building energy usage profile (up to and including the previous day's interval data) as well as alerts for energy anomalies. In some cases, the EMIS may be able to help customers find maintenance issues with their equipment (e.g., chiller compressor failure).

(6) Given the nature of the program, the EMIS program is solely targeted at non-residential customers. Other energy management offers are being piloted in the residential customer space. The residential offers are specific to home energy use, whereas the EMIS offer is focused on commercial control systems, which are not present in homes.

(7) The EMIS program will primarily benefit retrofitting existing capital stock. It is hypothesized that the combination of customers having 24/7 internet-based access to their building energy usage profile as well as alerting to energy anomalies This will create

customers who are energy-savvy and will likely be more aware and engaged when it comes to energy issues. In addition, the EMIS will provide insights into other energy reduction opportunities such as prescriptive and custom incentives in a customer's building. Finally, the program will provide energy benchmarking and collaboration opportunities with other similar buildings.

(8) Duke Energy Corporation is working to reach agreement on a contract with multiple vendors to develop the EMIS software-as-a-service solution across all five of its jurisdictions. Hence, the Company is planning to take advantage of the economies of scale in the vendor pricing. The EMIS program structure as currently proposed does not possess easy "plug-and-play" capabilities for integrating with other utilities' programs, if such programs even exist. Duke Energy Ohio will continue to cooperate with other Ohio utilities to determine potential savings available through integration of programs.

(9) One of the key features of this program is the bundle of measures that the customer is responsible for installing. The customer agrees to implement a negotiated bundle of energy-savings operational measures with a simple payback of two years or less within 6 months. Any other capital-type items such as light fixture replacements or lamp/ballast retrofits will be done outside this program under Duke Energy Ohio's existing prescriptive and custom incentive programs. The bundle of measures will contain measures with paybacks shorter or longer than 2 years. The customer has input as to the measures that make up the bundle. The customer will also commit to spend up to \$0.10 per square foot of building heated/cooled area (\$/s.f.) to implement measures. The customer can opt to spend more than this amount if the investment is attractive. The customer also has the responsibility to obtain bids, negotiate scopes of work, pay for

material/labor and approve the completed measures in the bundle. The customer can choose to use either internal or external labor for implementation.

(10) Duke Energy Ohio is using its energy efficiency supply chain to solicit and select vendors. A detailed scope of work was issued for vendors to review and submit bids. Unit pricing was requested from the vendors for fixed and variable components so that apple-to-apples comparisons can be made between vendors. Each of the vendors was encouraged to partner with other firms to provide a best-in-class proposal for each of the program elements.

(11) Several market barriers exist in the EMIS space preventing customers from participating in this space by themselves without the help of the utility. Duke Energy's EMIS program design has been developed to minimize these barriers:

Lack of capital: the initial cost of the vendors' software-as-a-service offers prevents customers from making the investment. The incentive structure has been designed to minimize this barrier. Duke Energy will pay upfront up to 50% of the customer's program costs (EMIS software, focused building assessment, periodic energy analyst interaction, and annual software license fees) in exchange for the customer's commitment to implement energy saving measures identified by the software and the energy analyst.

Lack of knowledge and education: some customers may lack knowledge in the area of EMIS. Duke Energy will develop informative sales collateral and conduct demonstrations to increase customer knowledge.

Habitual management practices/ lack of resources: facility managers and maintenance staff may be entrenched in their routines, continuing to manage and maintain the building as they have always done. Also, customers may have reduced their energy management

staff as a result of financial challenges. The remaining staff may be performing other activities, as well. If the customers are made responsible for the energy analysis and opportunity analysis associated with this program, then the adoption rate will likely be small. In order to address this issue, a component of the EMIS offer will provide third party energy analyst expertise to conduct the analysis and make the recommendation for the customers, as well as regularly checking in with the customer.

Analysis of the EMIS universe: Duke Energy has performed the screening of EMIS vendors for the customers. This is a very time-intensive and technically detailed effort, which now does not have to be performed by the customers, who may lack the resources to do it themselves.

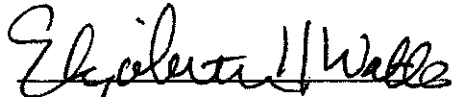
(12) In developing the program, Duke Energy Ohio evaluated similar program offerings by other utilities in the U.S. and Canada. Another key way in which Duke Energy Ohio worked in a collaborative environment to gain knowledge in developing the EMIS program was through the Consortium for Energy Efficiency (CEE). CEE members include many utilities that are testing or studying similar types of programs. In addition, Duke Energy Ohio also worked with many EMIS vendors to glean from their successes and failures.

(13) The Company believes promoting investment in energy efficiency measures and customer engagement will advance the adoption of energy efficiency measures and behavior. The Company will continue to examine the level of free ridership in each of these programs as a potential indicator of market transformation.

THEREFORE, consistent with the information provided above as supported by the Company witnesses in testimony included with this Application, Duke Energy Ohio respectfully

requests that the Commission approve the extension of the current cost recovery mechanism proposed, along with the new energy efficiency and peak demand reduction programs for inclusion within its existing portfolio.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Elizabeth H. Watts".

Amy H. Spiller (0047277)

Deputy General Counsel

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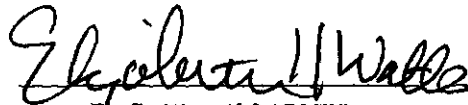
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Ohio Market Potential Study

Non-Residential	EE Measure Description	Duke Energy Ohio's Analysis	MPS Ref.
C&I Space Conditioning	Small HVAC Optimization and Repair	A similar measure was considered as part of our HVAC portfolio review performed by Clear Result. The upfront cost for testing units that may or may not be found to need a refrigerant charge was not cost-effective. If the cost of the testing was not part of the offer, customers were unlikely to participate. Also, based on the analysis, most of the units that were found to need a refrigeration charge were only around 2 years old. Considering we pay an incentive for new units, this did not seem like a cost-effective way to achieve impacts.	C-2
C&I Space Conditioning	Commissioning – New	This measure is not under consideration for the Smart Saver program due to a short measure life. In order for the savings to be sustained over time, commissioning must be continuously monitored.	C-3
C&I Space Conditioning	Re/Retro-Commissioning Life	In order for the savings to be sustained over time, the commissioning must be continuously monitored. The Energy Management Information System (EMIS) will be included in the New Portfolio Filing.	C-4
C&I Space Conditioning	Low-e Windows 1500 ft2 New	Available through the Custom program.	C-5
C&I Space Conditioning	Window Film	Currently offered through the Smart Saver Prescriptive program	C-9
C&I Space Conditioning	Large HVAC Optimization and Repair	Currently offered through the Smart Saver Prescriptive program (chiller tune-ups) and Custom	C-8
C&I Space Conditioning	Premium New HVAC Equipment	Currently offered through the Smart Saver Prescriptive program (chillers, rooftop units, unitary units, room ACs, etc.) and Smart Saver Custom program.	C-7
C&I Space Conditioning	Low-e Windows 1500 ft2 Replace	Window retrofits are not cost-effective for the Prescriptive program. Available through Smart Saver Custom program, but also has borderline cost effectiveness.	C-6
Cooking and Laundry	Restaurant Commissioning Audit	Already offer audits. Wouldn't offer a commissioning audit.	C-28
Cooking and Laundry	HE Food Prep and Holding	Currently offered through the Smart Saver Prescriptive program	C-26
Cooking and Laundry	Energy Star Commercial Clothes Washer	Once included within the Smart Saver Prescriptive program but had zero participation. Available through Smart Saver Custom program.	C-27
Customer-Sited Generation	Combined Heat and Power, CHP	Under consideration based on SB 221 but not certain at this point and will be impacted by yet to be released PUCO	C-1

Ohio Market Potential Study

Non-Residential	EE Measure Description	orders.	Duke Energy Ohio's Analysis	MPS Ref.
Design (new)	Integrated Building Design		Available through the Smart Saver Custom program.	C-10
Design (new)	Efficient Package Refrigeration		Available through the Smart Saver Custom program.	C-11
Lighting	Perimeter Daylighting		Currently available through the Smart Saver Custom program. Will be revisited during next Prescriptive portfolio review.	C-22
Lighting	LED Outdoor Lighting		Currently offered through the Smart Saver Prescriptive program	C-17
Lighting	New Efficient Lighting Equipment		Currently offered through the Smart Saver Prescriptive program	C-18
Lighting	Retrofit Efficient Lighting Equipment		Currently offered through the Smart Saver Prescriptive program	C-19
Lighting	LED Exit Signs		Currently offered through the Smart Saver Prescriptive program	C-20
Lighting	LED Traffic Lights (10)		Currently offered through the Smart Saver Prescriptive program	C-21
Motors and Drives	Electronically Commutated Motors		Currently offered through the Smart Saver Prescriptive program.	C-12
Motors and Drives	Single Application VSD		Single App VSD is currently offered under Prescriptive and the more complex and broad control strategies employing VFDs in manufacturing applications are those that tend to fall within the current Smart Saver Custom program.	C-14b
Motors and Drives	Premium Motors		Our analysis shows little opportunity for this measure at this time. We will continue to evaluate as the market changes.	C-13
Motors and Drives	Variable Speed Drives, Controls and Motor Applications Tune-Up		VFDs are currently offered through the Smart Saver Prescriptive program.	C-14a
Other	Grocery Refrigeration Tune-Up and Improvements		A similar measure was considered as part of our HVAC portfolio review performed by Clear Result. The upfront cost for testing units that may or may not be found to need a refrigerant charge was not cost-effective. If the cost of the testing was not part of the offer, customers were unlikely to participate. Also, based on the analysis, most of the units that were found to need a refrigeration charge were only around 2 years old. Considering we pay an incentive for new units, this did not seem like a cost-effective way to achieve impacts. ClearResult Scope of	C-29

Ohio Market Potential Study

			Work did not recommend including the Grocery Store Refrigeration Tune Up measure.	
Non-Residential	EE Measure Description	Duke Energy Ohio's Analysis	MPS Ref.	
Other	Refrigeration Casework Improvements	Currently offered through the Smart \$aver Prescriptive program.	C-30	
Other	VendingMiser®	Currently offered through the Smart \$aver Prescriptive program.	C-31	
Other	Network Computer Power Management	Measure was offered during two six month periods. Even with extra marketing, the measures generated little activity. Available for a Smart \$aver Custom incentive. Other IT measures are currently being considered for the Smart \$aver Prescriptive program.	C-32	
Power Distribution	Efficient AC/DC Power	Data Center operations. Not enough market for this currently.	C-16	
Power Distribution	Energy Star Transformers	This measure was evaluated and found not to have potential since it makes sense only at end of life.	C-15	
Water Heating	Heat Pump Water Heaters	Currently offered through the Smart \$aver Prescriptive program.	C-25	
Water Heating	Low Flow Fixtures	Currently under consideration for addition to the Smart \$aver Prescriptive program	C-23	
Water Heating	Solar Water Heaters	May become available in Smart \$aver Custom program as SB221 is clarified. No program changes required to add.(Part of Renewable Portfolio)	C-24	
	Solar Electric	Not cost-effective for Prescriptive incentives. This cannot be offered through Smart \$aver Custom program unless interpretation of SB221 makes it possible.	C-33	

Ohio Market Potential Study

Residential	EE Measure Description	Duke Energy Ohio's Analysis	MPS Ref.
Customer-Sited Generation	Combined Heat Power, micro CHP	Low potential; low priority	R-1
Residential Space Conditioning	Elec Furnace to SEER 16 H Pump (single family)	Eligible under current Smart \$saver program	R-2
Residential Space Conditioning	Resist to SEER 16 Heat Pump (single family)	Eligible under current Smart \$saver program	R-3
Residential Space Conditioning	Elec Furnace to SEER 16 H Pump (multi-family)	Determined not cost effective.	R-4
Residential Space Conditioning	Resist to SEER 16 Heat Pump (multi-family)	Determined not cost effective.	R-5
Residential Space Conditioning	Refrig Charge/Duct Tune-Up	Smart \$saver offer includes HP/CAC tune up without refrigerant charge.	R-6
Residential Space Conditioning	Refrig Charge/Duct Tune-Up	Gas measure	R-7
Residential Space Conditioning	SEER 13 to SEER 16 Heat Pump	Eligible under current Smart \$saver program	R-8
Residential Space Conditioning	SEER 13 to SEER 16 Heat Pump (multi-family)	Participation issues due to split incentive barrier. Determined not cost effective.	R-9
Residential Space Conditioning	SEER 13 to SEER 16 CAC	Eligible under current Smart \$saver program	R-10
Residential Space Conditioning	SEER 13 to SEER 16 CAC (multi-family)	Participation issues due to split incentive barrier. Determined not cost effective.	R-11
Residential Space Conditioning	Efficient Window AC	Poor results in 2008/09 pilot; free-riders >60% per US Energy Information Agency. Also re-evaluated during Q3 2012	R-12

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Residential	EE Measure Description	Duke Energy Ohio's Analysis	MPS Ref.
Residential Space Conditioning	Cool Roofs	Reviewed in Q3, 2012 and determined not cost effective.	R-13
Residential Space Conditioning	EE Windows	Free ridership issues; proven not cost effective in other Duke jurisdictions.	R-14
Residential Space Conditioning	Programmable Thermostats	Part of HES – measure within Home Energy Solutions.	R-15
Residential Space Conditioning	Ceiling Insulation (R6-R30)	Reviewed in Q3, 2012 and determined not cost effective.	R-16
Residential Space Conditioning	Ceiling Insulation (R6-R30)	Reviewed in Q3, 2012 and determined not cost effective.	R-17
Residential Space Conditioning	House Sealing using Blower Door	To be reviewed as part of the expansion of the Smart \$aver program.	R-18
Residential Space Conditioning	House Sealing using Blower Door	To be reviewed as part of the expansion of the Smart \$aver program	R-19
Residential Space Conditioning	Ground Source Heat Pump	Eligible under current Smart \$aver program	R-20
Residential Space Conditioning	Wall Insulation (R3-R11)	To be evaluated	R-21
Residential Space Conditioning	Wall Insulation (R3-R11)	To be evaluated	R-22
Residential Space Conditioning	Solar Siting/Passive Design	Low market potential, free ridership and high program cost issues anticipated.	R-23
Residential Space Conditioning	Energy Star Manufactured Home	Was reviewed and determined to be not cost effective.	R-24

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Residential	EE Measure Description	Duke Energy Ohio's Analysis	MPS Ref.
Residential Space Conditioning	Energy Star Construction	Under Evaluation	R-25a
Residential Space Conditioning	Major Remodel	Eligible under current Smart \$aver program	R-25b
Residential Space Conditioning	Window Film	Reviewed and not cost effective.	R-26
Load Management	Eliminate Old Appliances	Eligible under current Appliance Recycle program	R-27
Load Management	Set Back HVAC with Ceiling Fan	Part of Home Energy Solutions (HES) – without ceiling fan	R-28
Residential Appliances	Energy Star Clothes Washers	Reviewed and not cost effective	R-29
Residential Appliances	Energy Star Dish Washers	Reviewed and not cost effective	R-30
Residential Appliances	Energy Star Refrigerators	Reviewed and not cost effective	R-31
Residential Appliances	Pool Pumps	In development	R-32
Residential Lighting	Efficient Residential Lighting	Eligible under current (Smart Saver) program	R-33
Residential Lighting	Daylighting Design	Low market potential, free ridership and high program cost issues anticipated	R-34
Residential Lighting	Occupancy Controlled Outdoor Lighting	In development	R-35
Residential Lighting	Residential Outdoor Lighting	In development	R-36

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Residential	EE Measure Description	Duke Energy Ohio's Analysis	MPS Ref.
Water Heating	Tank Wrap, Pipe Wrap and Water Temp Setpoint	Some measure already eligible under current HEHC and K12 programs; under evaluation as a standalone offer. Pipe insulation in the Water Measure offer, but not the tank wrap due to historic in service issues.	R-37
Water Heating	Low Flow Fixtures	Some measure already eligible under current HEHC and K12 programs; under evaluation as a standalone offer.	R-38
Water Heating	Heat Pump Water Heaters	In development	R-39
Water Heating	Tankless Water Heaters	Free ridership issues; grid implications.	R-40
Water Heating	Solar Water Heaters	Not EE – Reviewed and not cost effective	R-41
Water Heating	Efficient Plumbing	Free ridership issues; could be included in new const program	R-42
Miscellaneous Technologies	Ductless Heat Pump	A consideration for the Smart Saver program. Smart Saver uses SEER ratings to denote efficiency. Ductless heat pumps do not have a SEER rating. Additional work needed to calibrate.	R-43
Miscellaneous Technologies	Drain HX	Free ridership issues; could be included in new const program. Very low market potential and concern regarding customer and trade ally acceptance or awareness of Drain Water Heat Recovery technology	R-44
Miscellaneous Technologies	Smart Plug	Reviewed in Q1 2012. Measure requires high customer involvement and education to maximize and maintain savings. Not cost effective.	R-45
Miscellaneous Technologies	Heat Pump Pool Heater	Opportunity to expand pool efficiency offer beyond pumps-limited market	R-46
Miscellaneous Technologies	Customer Report	Eligible under current My Home Energy Report (MyHER) program.	R-47
Miscellaneous Technologies	Solar PV	Not EE- Solar PV offers are review annually for cost effectiveness.	R-48

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Miscellaneous Technologies	In Home Display	Under development; phones, tablets instead of IHD – measure within Home Energy Solutions(HES).	R-49
Demand Response	DR Measure Description	Duke Energy Ohio's Analysis	MPS Ref.
Load Control AC Cycling	a C&I AC cycling program component	To be evaluated	P62-64
Load Control Call Option	Continuation of current offering	PowerShare® Program in place	P62-64
DLC – Residential AC Cycling	Continuation of current offering	Power Manger® program in place	P62-64
DLC – Residential Climate Control	newly planned thermostat control program	Included in Home Energy Solutions(HES), which was filed in 2011.	P62-64