

BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke)
Energy Ohio, Inc., for Approval of its) Case No. 20-1013-EL-POR
2021 Energy Efficiency and Demand Side)
Management Portfolio of Programs and)
Cost Recovery Mechanism.

In the Matter of the Application of Duke) Case No. 20-1114-EL-ATA
Energy Ohio, Inc., for Approval of Tariff)
Amendments.)

DIRECT TESTIMONY OF

RICK L. MIFFLIN

ON BEHALF OF

DUKE ENERGY OHIO, INC.

June 3, 2020

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I. INTRODUCTION

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Rick L. Mifflin, and my business address is 400 South Tryon Street,
3 Charlotte, North Carolina 28202.

4 **Q. PLEASE DESCRIBE YOUR ROLE WITH DUKE ENERGY?**

5 A. I am Director Products and Services, Residential Markets. My team provides
6 various administrative and other services to Duke Energy Ohio, Inc., (Duke Energy
7 Ohio or the Company) and other affiliated companies of Duke Energy Corporation
8 (Duke Energy).

9 **Q. PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL**
10 **EXPERIENCE.**

11 A. I received a Bachelor of Science degree in Marketing from Indiana State University
12 and Master of Business Administration from Indiana University. I have held
13 various positions throughout Duke Energy and its predecessor companies,
14 including roles in Business Services, Product Development, Customer Service and
15 Non-Regulated Products and Services. I joined the Energy Efficiency organization
16 in 2006 to manage Duke Energy's Residential Energy Efficiency and Demand
17 Response programs. In 2014, I took over management of residential efficiency
18 programs, which is still my current area of responsibility.

19 **Q. PLEASE DESCRIBE YOUR DUTIES AS DIRECTOR OF RESIDENTIAL**
20 **EFFICIENCY PROGRAMS.**

21 A. My team oversees the operation of Duke Energy Ohio's residential energy
22 efficiency products to ensure they are delivered to customers cost effectively and

1 efficiently. This involves managing contracts with external parties, monitoring the
2 mix of incentives included in the portfolio, and planning strategies for raising
3 customer awareness of the incentives offered. The Company works with external
4 engineering firms to assist with developing costs for incentive measures, as well as
5 guidance on incentives offered by other utilities to aid in the evaluation of cost
6 effectiveness. The Company is constantly evaluating the number of incentive
7 applications being submitted, types of technologies customers are employing, and
8 evaluating strategies to increase adoption rates by customers. This also includes
9 periodic reviews of the measures included in offerings to customers to ensure the
10 Company's portfolio stays current with technology changes in the marketplace and
11 changes in efficiency standards.

12 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC**
13 **UTILITIES COMMISSION OF OHIO?**

14 A. No, I have not previously provided testimony before the Public Utilities
15 Commission of Ohio (Commission).

16 **II. DISCUSSION**

17 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
18 **PROCEEDING?**

19 A. The purpose of my testimony in this proceeding is to explain the residential energy
20 efficiency portfolio of programs proposed to be offered by Duke Energy Ohio and to
21 explain some of the marketing strategies being employed to raise awareness of the
value of energy efficiency investments with customers.

1 **Q. WHAT RESIDENTIAL ENERGY EFFICIENCY (EE) AND DEMAND SIDE**
2 **MANAGEMENT (DSM) PROGRAMS DOES DUKE ENERGY OHIO**
3 **PROPOSE TO OFFER IN THE NEW PORTFOLIO?**

4 A. Duke Energy Ohio's residential energy efficiency programs consist of Smart \$aver®
5 Residential, Residential Energy Assessments, My Home Energy Report (MyHER),
6 Energy Efficiency Education Program for Schools, Low Income Neighborhood
7 Energy Saver Program, Power Manager, and Low-Income Weatherization - Pay for
8 Performance. These programs were previously approved by the Commission in Duke
9 Energy Ohio's Case No. 16-576-EL-POR. These same programs are being filed for
10 inclusion in the proposed portfolio to begin January 1, 2021. Cost effectiveness,
11 participant and cost data for the proposed portfolio of programs is included in the
12 Application to this filing.

13 **Q. ARE THERE ANY NEW RESIDENTIAL PROGRAMS DUKE ENERGY**
14 **OHIO IS PROPOSING TO INCLUDE IN THE EE PORTFOLIO?**

15 A. No. The 2021 portfolio does not currently include any new residential programs,
16 but its existing programs incorporate new measures and delivery channels. The
17 Company will continue to evaluate potential programs and will review any new
18 programs the Company plans to offer during this timeframe with the Duke Energy
19 Collaborative.

20 **Q. WHY IS IT IMPORTANT TO CONTINUE OFFERING RESIDENTIAL**
21 **ENERGY EFFICIENCY PROGRAMS TO CUSTOMERS?**

22 A. Improved technology and connectivity has created a lot of options for customers to
23 improve their home's efficiency and functionality, but residential customers need

1 help making the best long and short-term energy related decisions for their specific
2 needs. While sophisticated energy efficiency solutions are often available to larger
3 customers, residential users with their comparatively smaller potential savings are
4 not as well-served by the marketplace. Furthermore, they often lack the expertise
5 and capital to identify and implement effective solutions. Duke Energy Ohio and
6 its partners have been a trusted source of advice and resources that enables
7 customers to make informed decisions. The established program portfolio offers a
8 broad selection of measures that allow all residential customers an opportunity to
9 save energy and money. The energy efficiency programs have an established
10 reputation for true value and financial assistance to encourage cost effective
11 investment in proven energy efficiency upgrades.

12 **Q. HOW LONG HAS DUKE ENERGY OHIO BEEN OFFERING EE AND**
13 **DSM PROGRAMS TO RESIDENTIAL CUSTOMERS?**

14 A. Duke Energy Ohio has been offering residential energy efficiency and DSM
15 programs for more than 10 years to assist with the fundamental energy needs of
16 customers. The programs have evolved over time to improve value, simplicity
17 while also adjusting to changing conditions in the marketplace. The long running
18 programs include, but are not limited to the following:

- 19 • A free in-home assessment with a certified expert that walks
20 through the home, provides energy saving recommendations and
21 directly installs measures that save money right away;
- 22 • Free rebates for installing energy efficient measures like LEDs,
23 HVAC and insulation;

- 1 • Educational programs for schools which helps children better
2 understand energy and how they can help their families save
3 energy and money through fun and engaging activities; and
- 4 • Demand response programs that reward customers for reducing
5 electric load to during high demand periods.

6 In the past 2 years Duke Energy Ohio has delivered nearly 5 million measures to
7 residential customers with unique needs and a wide spectrum of family
8 characteristics.

9 **Q. PLEASE DESCRIBE IN DETAIL THE EE AND DSM PROGRAMS THAT**
10 **DUKE ENERGY OHIO PROPOSES TO OFFER TO RESIDENTIAL**
11 **CUSTOMERS IN 2021.**

12 A. The programs are described below.

13 1. *Smart Saver[®] Residential*

14 This program includes measures for lighting, HVAC, and energy efficient
15 water measures. It has been offered since 2009, and assisted customers with
16 millions of energy efficient decisions that have led to long-term savings on utility
17 bills. Duke Energy Ohio and its partners are especially helpful in assisting with
18 large, complex and infrequent energy decisions like changing out heating and
19 cooling equipment.

20 a. Residential Lighting

21 The Residential Lighting measures within the Smart Saver[®] Program
22 offer customers a wide variety of energy efficient lighting and are delivered to
23 customers through two different delivery channels, an online Specialty Lighting

offer and a retail-based LED lighting offer. Measure descriptions are provided below.

i. Specialty Lighting

The Duke Energy Savings Store is an on-demand ordering platform enabling eligible customers to purchase a variety of energy efficient products and have them shipped directly to their homes. The Savings Store offers a variety of LEDs including but not limited to; Reflectors, Outdoor Reflectors, Globes, Candelabra, 3-Way, Dimmable and A-Line type bulbs. In addition to LEDs the store has expanded its energy efficient product offerings to include, among others, the following products:

- Smart Thermostats;
- Smart Strips;
- Water products (showerheads & TSVs);
- Energy Star Air Purifiers;
- Energy Star Dehumidifiers; and
- Fixtures (portable, direct wire, & outdoor photocell).

Duke Energy incentive levels vary by product and the customer pays the difference, including shipping. A maximum number of incentivized products for each household has been established based on the number of products the average home is likely to have, but customers may choose to order more without the Duke incentive. The product limits are listed below:

- Lighting: maximum of 36 bulbs;
- Smart Thermostats: maximum of 2;

- Smart Strips: Maximum of 4;
- Water products (showerheads and thermostatic valves (TSVs): maximum of 3;
- Energy Star Air Purifiers: Maximum of 2;
- Energy Star Dehumidifiers: Maximum of 2; and
- Fixtures (direct wire, portable, & outdoor photocell): Maximum of 15.

Duke Energy Web Site

Customers can go online to visit the Saving Store and purchase energy efficient products. Frequently asked questions and educational videos are available to help customers understand how these purchases can save them energy.

My Account

Customers enrolled in the Company's My Account service may visit the Savings Store and purchase energy efficient products. Upon login, eligible customers are intercepted with the Savings Store offer. Customers can choose to "Shop Now" or "No Thanks". Additional links within My Account are also available for customers to access the Savings Store.

Telephone

Customers may call a toll-free number to contact the program's third-party vendor directly to place their orders.

Mail-In

Should a customer elect to mail in their order, the vendor will process the order accordingly.

1 The Savings Store is managed by a third-party vendor. The vendor is
2 responsible for maintaining the Savings Store website and fulfilling customer
3 purchases. The Savings Store landing page provides information about the store,
4 product offerings, highlights promotions, account information and order history.
5 Support features include a toll-free number, chat, package tracking and frequently
6 asked questions. Educational information is available to help customers with their
7 purchase decisions.

8 Duke Energy residential customers with an active residential account are
9 eligible to participate and must agree to terms and conditions, including the
10 condition that all products will be installed at the account's premise address.

11 This program provides discounted energy efficient products, such as smart
12 thermostats, for residential customers to help them reduce their energy usage while
13 maintaining a comfortable atmosphere within their home. In addition to the
14 Savings Store channels, Duke Energy has engaged market partners to promote the
15 benefits of smart thermostats. Through this channel, Duke Energy residential
16 customers can receive an instant discount on qualifying smart thermostats directly
17 from a competitive retail electric supplier.

18 One of the primary goals of this program is to help customers lower their
19 energy bills and to remove inefficient equipment from the electric grid.

20 This program will implement an integrated approach to marketing which may
21 include, but is not limited to:

- 22 • Direct mail;
- 23 • Email;

- Bill inserts/messaging;
- Digital and broadcast media; and
- Local energy suppliers and market partners

ii. Retail Lighting

This upstream, buy-down retail-based lighting program works through lighting manufacturers and retailers to offer discounts to Duke Energy customers selecting incentivized LEDs and energy-efficient fixtures at the shelf for purchase at the register. Retailers such as, but not limited to, Home Depot, Lowe's, Walmart and Habitat for Humanity Restores participate in this program.

This program encourages those customers not likely to shop at the on-line stores to adopt energy efficient lighting through incentives on a wide range of efficient lighting technologies including LED products, including Reflectors, Globes, Candelabra, 3 Way, Dimmable and A-Line type bulbs, as well as fixtures. Customer education is imperative to ensure customers are purchasing the correct bulb for the application to obtain high satisfaction with energy efficient lighting products, ensuring subsequent energy efficient purchases.

The incentive amount varies by product type and the customer pays the difference as well as any applicable taxes. Pack limits are enforced to the best of the retailers' ability.

A vendor is utilized to implement this program. This vendor is an industry leader and leverages its existing relationships and systems established with the participating retailers and manufacturers. Additionally, the vendor has a field team in place to promote and monitor this program at the participating retail locations.

1 A toll-free call center and website are hosted by the vendor to provide program
2 information to Duke Energy Ohio customers. The website includes a retailer locator
3 where customers can enter their address and search for retailers in their area. Also
4 available on the program website is an interactive savings calculator, which will
5 explain the different types of lighting technologies to help guide customers to the
6 appropriate bulb(s) for their application and provide an estimate of energy and
7 monetary savings.

8 Eligible program participants include Duke Energy Ohio residential
9 customers. The primary goals for this program are to help customers lower their
10 energy bills and to remove inefficient equipment from the electric grid. This
11 program educates customers about energy consumption attributed to lighting and
12 how to reduce their consumption by using high efficiency alternatives.

13 This program utilizes an integrated marketing plan which includes:

- 14 • Point of purchase materials at the participating retailer locations;
- 15 • Duke Energy and program website;
- 16 • General awareness campaigns;
 - 17 ○ Direct mail;
 - 18 ○ Email;
- 19 • Advertised in-store educational events at key retailers utilizing:
 - 20 ○ Direct mail;
 - 21 ○ Email; and
 - 22 ○ In store materials (fliers, bag stuffers, posters, banners, *etc.*);

- Community outreach events (neighborhood, cultural events, etc.)

These marketing efforts are designed to create customer awareness of this program, to educate customers on energy saving opportunities and to emphasize the convenience of program participation. Additionally, marketing efforts related to advertised in-store events are designed to motivate customer participation.

Possible legislative or executive action that changes requirements of the Energy Independence and Security Act of 2007 (EISA) may necessitate changes to this program.

b. Residential HVAC and Water Measures

The Residential Smart Saver[®] program offers prescriptive incentives to residential customers for the purchase and installation of energy efficient measures designed to help customers improve the efficiency of their HVAC system, building shell, in-ground swimming pool filtration, and water heating. The measures offered through the program include high efficiency HVAC equipment replacements, attic insulation and air sealing, duct sealing, heat pump water heaters and variable-speed pool pumps. The scope of the program expanded in 2018 by increasing the available measures related to HVAC equipment and an additional marketing referral channel, branded as Find It Duke.

i. *HVAC Equipment and Services*

The HVAC equipment measures have been modified to include a tiered incentive structure, based on the efficiency rating of the new unit installed, along with an add-on optional smart thermostat that customers can choose to combine

1 with equipment replacement to further improve the efficiency of the HVAC system.
2 Two incentive levels will be made available for customers replacing HVAC
3 equipment. The smart thermostat is a programmable Wi-Fi enabled thermostat with
4 features that include an energy-saving mode, active management of settings such
5 as automatic schedule or learning-based schedule, and occupancy discernment such
6 as sensors or geofencing. These smart thermostats help customers monitor and
7 manage their HVAC system from their smart device and must be purchased and
8 programmed as part of the new HVAC equipment installation. In 2018, a new
9 HVAC measure was added to the program to promote the benefits of retrofitting
10 from electric space heating to variable-refrigerant flow (VRF) mini and multi-split
11 heat pumps. These high efficiency units provide whole-home heating and cooling
12 to older homes without existing ductwork or retrofitting homes that previously used
13 electric resistance baseboard heating.

14 The referral marketing channel, Find It Duke, component of the program
15 provides a free contractor referral service to customers for home improvement
16 projects to enhance program awareness and participation. Find It Duke simplifies
17 the customer's decision-making around energy efficiency purchases and takes the
18 guesswork out of finding reliable, qualified contractors with competitive offers.
19 This delivery channel supports the Company's role as an energy efficiency program
20 administrator while building trusted partnerships with customers and HVAC and
21 home performance contractors as well as home builders (Trade Allies) who
22 interface directly with residential customers. Qualifying Trade Allies may elect to
23 participate in the Find It Duke marketing referral component of the program.

Trade Allies leverage the program to assist with selling these products and services to customers. After a customer purchases and installs an approved energy efficient measure, the Trade Ally applies for the financial incentive on behalf of the customer. Upon approval of the application, the Company pays the incentive for the approved energy efficiency measure. The Company contracts with a program implementation vendor who is responsible for application processing, incentive payment disbursement, and processing customer inquiries.

HVAC Equipment Incentive Levels

Measure	Eligibility	Max Incentive
Central Air Conditioner	15 and 16 SEER with ECM	\$200
	17 SEER and greater with ECM	\$300
Air Source Heat Pump	15 and 16 SEER with ECM	\$300
	17 SEER and greater with ECM	\$400
Variable-Speed Mini- and Multi-Split Heat Pump	17 SEER and greater with ECM	\$400
Geothermal Heat Pump	10.5 SEER and greater with ECM	\$400
Smart Thermostat	Installed and programmed through customer's Wi-Fi network at time of HVAC replacement	\$65

ii. Attic Insulation and Air Sealing

Program incentives are provided to customers that have a trained participating contractor to seal and insulate the home's attic. Trained technicians utilize diagnostic equipment and proven procedures to identify and seal attic penetrations to improve the home's comfort and to reduce energy bills. After the

1 sealing process is complete, attic insulation is installed to provide protection from
2 higher attic temperatures. Trade Allies submit incentive applications on behalf of
3 customers following successful completion of insulation and air sealing within the
4 attic. The customer incentive for attic insulation and air sealing is \$250 and is
5 available one time per household.

6 *iii. Duct Sealing*

7 Program incentives are provided to customers that have a certified
8 contractor test and air seal the home's duct system to improve the efficiency of the
9 heating and cooling system through reduced air leakage. Trained technicians utilize
10 diagnostic equipment using proven procedures to seal leaks which can reduce
11 energy bills and improve comfort. Trade Allies submit incentive applications on
12 behalf of customers following successful completion of the duct sealing measure.
13 The customer incentive is \$100 for duct sealing and is available one time per duct
14 system.

15 Marketing of the HVAC equipment and services is primarily targeted to
16 Trade Allies and new home builders. Since Trade Allies interface with the customer
17 during the decision-making event, they are a key component to the success of the
18 program. Program information including Trade Ally enrollment forms will be
19 available on Duke Energy's website. This information will assist in educating and
20 building customer awareness about the program. By increasing the overall
21 awareness of the program and the participation of Trade Allies, it ensures more
22 customers are discussing the benefits of the program at time of purchase.

23 In addition, the program team will launch several broad-based marketing

1 campaigns to increase the customer awareness of the program and promote the
2 benefits of the Find It Duke contractor referral service. The marketing campaigns
3 may leverage channels such as TV, radio, social media, and print which will be in
4 addition to the traditional channels (email, bill insert, bill messaging) the program
5 has historically communicated through to reach customers.

6 *iv. Heat Pump Water Heater*

7 The heat pump water heater measure is designed to encourage the adoption
8 of energy efficient water heating in new or existing residences. Duke Energy Ohio-
9 served homeowners currently residing in or building a single-family residence,
10 condominium, or duplex home are eligible for this program. Installation of a high
11 efficiency heat pump water heater will result in a \$350 incentive. Duke Energy
12 Ohio program personnel establish relationships with home builders, plumbing
13 contractors, and national home improvement retailers who interface directly with
14 residential customers. All incentives are paid directly to customers upon approval
15 of a completed application.

16 Proactive marketing channels will be used to generate awareness and
17 educate customers on the benefits of heat pump water heaters. Promotion channels
18 will include, but are not limited to: bill inserts, retailer point-of-sale signage, direct
19 mail, email, and Duke Energy website.

20 *v. Variable-speed Pool Pump*

21 The variable-speed pool pump measure is designed to encourage the
22 adoption of energy efficient, variable-speed, pool pumps for the main filtration of
23 in-ground residential swimming pools. Duke Energy Ohio-served homeowners

1 currently residing in, or building, a single-family residence with an in-ground
2 swimming pool are eligible for this program. Installation of a high efficiency,
3 variable-speed pool pump will result in a \$300 incentive. Duke Energy Ohio
4 program personnel establish relationships with home builders and pool
5 professionals who interface directly with residential customers. All incentives are
6 paid directly to customers upon approval of a completed application.

7 Proactive marketing channels will be used to generate awareness and
8 educate customers on the benefits of variable-speed pool pumps. Promotion
9 channels will include, but are not limited to: bill inserts, trade ally collateral, direct
10 mail, email, and Duke Energy website.

11 c. Save Energy and Water Kit

12 The Save Energy and Water Kit (SEWK) program is designed to increase
13 the energy efficiency of residential customers by offering customers energy
14 efficient water measures to install in high-use fixtures within their homes and
15 Insulated Pipe Tape to install on the hot water pipe exiting the water heater. These
16 energy saving devices will be offered to eligible customers and by opting in,
17 customers can have these devices shipped directly to their homes, free of charge.
18 Eligibility is based on single-family home ownership and past campaign
19 participation (including this program and any other programs offering water
20 measures that Duke Energy Ohio has offered to Ohio customers). Customers must
21 also have an electric water heater. Customers receive a kit with varying amounts,
22 based on the size of the home, of the following devices: low flow bath and kitchen
23 aerators, low flow shower heads and insulated pipe tape. The kit also includes

1 directions and items to help with installation.

2 The overall strategy of this program is to reach residential customers who
3 have not adopted low flow water devices and water heating pipe insulation. Duke
4 Energy will educate customers on the benefits of using efficient water devices and
5 saving the energy used to heat water, while addressing barriers for consumers who
6 have not participated in this program.

7 Duke Energy Ohio will market the SEWK through various promotional
8 channels which may include, but are not limited to: direct mail, email and through
9 an online store. The response rate will be tracked and monitored.

10 The program is delivered through a vendor who will receive and fulfill
11 orders, provide technical support, and provide replacement of damaged and missing
12 orders. The vendor will maintain a call center for this program to answer questions
13 and take orders.

14 In early 2018, the program launched an online ordering option allowing
15 customers to redeem the offer online. As a part of this launch, Duke Energy Ohio
16 began using direct email to reach market segments more prone to interact and do
17 business online instead of through traditional mail. In 2020, over 50 percent of
18 program solicitations have been via email which is a much lower cost marketing
19 channel than direct mail. Also, in 2020, 55 percent of all offer redemptions have
20 been through the online channel.

21 In late 2019, the program added the ability for customers redeeming the
22 offer online to upgrade the showerhead(s) in the kits to a model that better suited
23 their needs. The cost to the customer is the cost difference between the free

1 showerhead and the upgrade. There is no margin in the upgrade. In 2020, 19 percent
2 of online kit redemptions included one or more showerhead upgrades. The upgrades
3 are designed to increase installation rates and to increase customer satisfaction.

4 In the future, the program will continue to review opportunities to add
5 upgrade options to the kits.

6 d. Multifamily Energy Efficiency Products & Services

7 The Multifamily Energy Efficiency Products & Services will allow Duke Energy
8 Ohio to use an alternative delivery channel which targets multi-family apartment
9 complexes. Often, neither property managers/owners nor tenants are motivated to
10 make energy efficiency improvements because they either do not pay the electric
11 bill or the residence is considered temporary. This program bridges this gap by
12 educating property managers/owners about benefits of energy efficiency and
13 provides a low cost/no cost solution for improving the efficiency of the apartments.
14 The implementation is managed through a vendor who delivers this program. The
15 vendor oversees all aspects of this program including outreach, direct installations,
16 and customer care.

17 This program installs energy efficient measures via direct install service by
18 crews provided by the vendor.

19 This program's installation measures include:

- 20 • Energy Efficient LED Lighting - This program will install
21 lighting measures in all high use areas.
- 22 • Kitchen Faucet Aerators*
- 23 • Bathroom Faucet Aerators*

- Low Flow Showerhead*
- Hot Water Pipe wrap*

*Water measures are only available if water is heated electrically

Promotion of this program is primarily focused on personalized outreach to targeted property managers/owners where each unit is individually metered and has an electric water heater. Program collateral stresses the benefits of this program to property managers that are motivated by higher occupancy rates, lower water bills and lower tenant turnover. In addition, tenants will be informed about the program benefits and how the energy efficient measures will help reduce their energy costs. Once enrolled, this program provides property managers with a variety of marketing tools to create awareness of this program to their tenants.

These include program posters to leave in common areas and letters to each tenant informing them about the measures to be installed and the installation date(s). Tenants are provided an educational leave-behind brochure when the installation is complete. The brochure provides additional details about the installed measures as well as a tear-off customer satisfaction survey to fill out and mail back to Duke Energy to provide valuable program feedback.

Measures are installed during scheduled direct install visits by Vendor Installation Crews. Crews carry tablets to keep track of the measures installed in each apartment.

After installations are complete, Quality Assurance (QA) inspections are conducted on approximately 20 percent of properties that completed installations in each month. Any QA adjustments are noted and reported to Duke Energy so

1 participation records may be updated.

2 New energy efficient measures are being evaluated for addition to the
3 program. Measures include, but are not limited to: smart thermostats, higher
4 efficiency aerators and showerheads, additional lighting measures, and water heater
5 turndown.

6 2. **Residential Energy Assessments**

7 Residential Energy Assessments are a free in-home assessment designed to
8 help customers reduce energy usage and energy cost. An energy specialist
9 completes a 60 to 90-minute walk through assessment of the home and analyzes
10 energy usage specific to the home to identify energy saving opportunities. The
11 Building Performance Institute (BPI) certified energy specialist provides and
12 discusses a customized report with the customer that identifies actions the customer
13 can take to increase energy efficiency in his/her home. The recommendations will
14 range from behavioral changes to equipment modifications that can save energy
15 and reduce cost. The primary goal is to empower customers to better manage their
16 energy usage.

17 Example recommendations might include the following:

- 18 • Turning off vampire load equipment when not in use;
- 19 • Turning off lights when not in the room;
- 20 • Using energy efficient lighting in light fixtures;
- 21 • Using a programmable thermostat to better manage heating
22 and cooling usage;
- 23 • Replacing older equipment; and

- 1 • Adding insulation and sealing the home.

2 Customers receive an Energy Efficiency Kit with a variety of measures
3 that can be directly installed by the energy specialist at the time of the
4 assessment. The kit may include measures such as energy efficient lighting, low
5 flow water measures, outlet/switch gaskets, weather stripping and energy saving
6 tips.

7 This program targets Duke Energy residential customers that own a single-
8 family home.

9 Program benefits include:

- 10 • Helping customers get started on implementing energy
11 efficiency measures into their homes;
12 • Providing the expertise of a BPI certified energy specialist raises
13 awareness of efficiency opportunities; and
14 • Educating and empowering customers how to use less energy
15 provides a personalized experience, reduces cost, builds trust
16 and positively impacts the environment.

17 Important components of the program include providing customers with
18 free energy saving measures and educating them on how to manage their energy
19 needs. After conducting the analysis, the energy specialist provides a one-on-
20 one education session with the customer reviewing a customized report as well
21 as leave-behind materials to emphasize the measures installed, the importance of
22 each measure, and how to maintain the measure.

23 Potential changes to the program include more options for customers

1 during the audit to include; a blower door test, a detailed Home Energy Score
2 rating, additional measures for free, upgradeable measures for a cost as well as
3 additional information for non-regulated offerings where relevant in the
4 recommendations.

5 Program participation is primarily driven through but is not limited to:
6 targeted mailings to pre-qualified residential customers; however, for those who
7 elect to receive offers electronically, email marketing will be used to supplement;
8 online awareness via the Duke Energy website as well as through online services
9 and social media.

10 3. **My Home Energy Report (MyHER)**

11 MyHER is an energy efficiency program based on behavioral science to
12 motivate energy efficient behavior. This program uses a peer group of homes of
13 similar size, age, type of heating fuel and geography to highlight the customer's
14 variance in energy use when compared to the "Average Home" and an "Efficient
15 Home" of the peer group to engage the customer. The energy usage data features
16 easy to read charts and visuals that illustrate how a customer's home performed in
17 the last month and trended over the year as compared to the sample set via print
18 and online channels. Further social motivation is introduced by establishing a value
19 for an "Energy Efficient Home" within the peer group, as customers closest to the
20 average are unlikely to be motivated to change their behavior.

21 As customers receive subsequent reports and or engage online, they learn
22 more about their specific energy use and how they match up to their peer group.
23 Targeted energy efficiency tips are offered to provide customers actionable ideas

1 for reducing energy. The usage recommendations are relevant to the specific season
2 the report is arriving in homes and provides low to no cost recommendations along
3 with recommendations that require some investment by the customer. To encourage
4 persistence, product specific offer rebates or audit follow-ups from other Duke
5 Energy Ohio programs are offered to customers based on their energy profile.

6 The MyHER report is sent via direct mail and email to targeted customers
7 with desirable characteristics who are likely to respond to the information. The
8 reports are distributed up to 8 times per year in paper format and 12 times per year
9 via email; the MyHER Interactive portal offers customers an opportunity to further
10 engage with their energy usage. Customers can:

- 11 • Set energy saving goals and track their progress on those goals;
- 12 • See their energy use disaggregated into how they use energy in
13 their home on a monthly and annual basis;
- 14 • “Ask an Expert” questions; and
- 15 • Post tips they have found useful and effective.

16 Online participants will have access 24 hours per day, 7 days a week to login and
17 view personalized usage and comparative data along with customized tips and
18 recommendations. In 2016, all online participants began receiving an electronic
19 version of their paper report as well. This was intended to drive additional
20 engagement with customers’ energy use but will not replace the paper report. The
21 offer is presented to customers as an opt-out which allows customers to elect to not
22 receive the reports.

23 Providing the comparative data via print will not be marketed or require

1 advertising. Providing the comparative data via online channels will initially be
2 marketed through channels such as, but not limited to, direct mail and online
3 channels. Marketing communication will be flexible and adaptable as online
4 behavior will be evaluated consistently for engagement and response levels.

5 Historically, the MyHER report was only available to customers living in
6 single-family homes. However, in June 2018, the Company started sending the
7 report to customers living in multi-family homes as well. The report is similar in
8 the comparison data provided; however, multi-family dwellings will be compared
9 to other multi-family dwellings and the tips on the report will be tailored to the
10 behavior changes and efficiency changes a multi-family dwelling can make.

11 Also, in February 2018, the Company began sending dual fuel reports to
12 Ohio customers who receive both their electricity and gas from Duke Energy Ohio.
13 These reports show comparisons of both customers' electric use and gas usage.

14 4. **Energy Efficiency Education Program for Schools**

15 The Energy Efficiency Education Program for Schools is available to
16 students in grades K-12 enrolled in public and private schools who reside in
17 households served by Duke Energy Ohio. The program expanded into high schools
18 and conducted performances at 4 high schools during the 2019 – 2020 school year.

19 The primary goal of this program is to educate students on the importance
20 of energy conservation and teach them how to save energy in their homes. This
21 program includes both an energy saving curriculum for the school classroom and
22 an Energy Efficiency Starter kit at no cost to the participating student household.
23 This program provides an important message about energy efficiency through an

1 innovative delivery channel for children. Principals and teachers are provided a
2 curriculum that educates students about energy, resources, how energy and
3 resources are related, ways energy is wasted and how to be more energy efficient.
4 The vendor serves as the primary point of contact with the school and delivers this
5 program. The curriculum creatively engages students to learn energy saving
6 behaviors in school and empowers the students to help their families save energy
7 at home. Teachers receive supplemental educational material for their classroom
8 and students take home assignments. All workbooks, assignments and activities
9 meet state curriculum requirements.

10 As part of the program, households are encouraged to request their free
11 Energy Efficiency Starter Kit. The kit contains specific energy efficiency measures
12 that can be easily implemented to reduce home energy consumption. The kits are
13 available at no cost to eligible Duke Energy residential electric customer
14 households at participating schools. The kits can be ordered online, by phone or
15 through paper enrollment. When the Energy Efficiency Starter Kit request is
16 completed and eligibility is determined, the kit is shipped and received within two
17 to four weeks to the student's household. The kit includes items such as energy
18 efficient lighting and water measures along with an energy saving tips booklet.
19 The Company works through a vendor to deliver marketing efforts for outreach to
20 schools. The marketing channels may include but are not limited to:

- 21 • Direct mail;
- 22 • Email;
- 23 • In-Person;

- Website;
- Events or assemblies;
- Printed materials for classrooms; and
- Social media promotions.

These marketing efforts are designed to engage students and their families in energy conservation behavior and provide energy saving opportunities for their households with the kits. Program participation is driven by student households that elect to receive the Energy Efficiency Starter Kit.

In February 2019, the program released a gamification application to further drive participation in the program and provide an additional channel of on-going engagement with the students.

5. **Low Income Neighborhood Energy Saver Program**

The Low-Income Neighborhood Energy Saver Program, known as Neighborhood Energy Saver (NES), assists low-income customers in reducing energy costs through energy education and installation of energy efficient measures. The primary goal of this program is to empower low-income customers to better manage their energy usage.

Customers participating in this program will receive a walk-through energy assessment and one-on-one education from an energy efficiency technician. Additionally, the customer receives a comprehensive package of energy efficient measures. Each measure listed below is installed by an energy efficiency technician or provided to the extent the measure is identified as an energy efficiency opportunity based on the results of the energy assessment:

- 1 • Energy Efficient Bulbs - Up to 15 energy efficient bulbs to
2 replace incandescent bulbs;
- 3 • Electric Water Heater Wrap and Insulation for Water Pipes;
- 4 • Electric Water Heater Temperature Check and Adjustment;
- 5 • Low-Flow Faucet Aerators - Up to three low-flow faucet
6 aerators;
- 7 • Low-Flow Showerheads - Up to two low-flow showerheads;
- 8 • Wall Plate Thermometer;
- 9 • HVAC Winterization Kits – Up to three winterization HVAC
10 kits for wall/window air conditioning units will be provided
11 along with education on the proper use, installation and value of
12 the winterization kit as a method of stopping air infiltration;
- 13 • HVAC Filters - A one-year supply of HVAC filters will be
14 provided along with instructions on the proper method for
15 installing a replacement filter;
- 16 • Change Filter Calendar; and
- 17 • Air Infiltration Reduction Measures - Weather stripping, door
18 sweeps, caulk, foam sealant and clear patch tape will be installed
19 to reduce or stop air infiltration around doors, windows, attic
20 hatches and plumbing penetrations.

21 Targeted low-income neighborhoods qualify for this program if
22 approximately 50 percent of the households have incomes of 0 percent-200 percent
23 of the Federal Poverty Guidelines. Duke Energy Ohio analyzes electric usage data

1 to prioritize neighborhoods that have the greatest need and highest propensity to
2 participate. While the goal is to serve neighborhoods where the majority of
3 residents are low-income, this program is available to all Duke Energy Ohio
4 customers in the defined neighborhood. This program is available to both
5 homeowners and renters occupying single-family and multi-family dwellings in the
6 target neighborhoods with electric service provided by Duke Energy Ohio.

7 The community approach offered by this program offers the following
8 benefits:

- 9 • Community wide involvement raises awareness of energy
10 efficiency opportunities;
- 11 • Community leaders provide a trusted voice;
- 12 • Greater acceptance is possible when neighbors and friends go
13 through this program together;
- 14 • Efficiencies are gained by working in the same proximity for
15 longer periods of time;
- 16 • More resources are available to the individual participants to
17 meet their needs;
- 18 • Enrolling is simple;
- 19 • Implementation of measures is fast and easy;
- 20 • Timely tracking and reporting of activity; and
- 21 • Flexibility in community events can achieve greater success.

22 The primary goal for this program is to empower low-income customers to
23 better manage their energy bills. Duke Energy will engage low-income customers

1 on a personal basis using a grass roots marketing approach to gain their trust.
2 Crucial steps include providing customers with free energy saving measures and
3 educating them on how to manage their energy needs. After a one-on-one
4 education session, energy efficiency technicians provide customers with leave-
5 behind materials to emphasize the measures installed, the importance of each
6 measure, and how to maintain the measure.

7 Below are some of the marketing tactics Duke Energy may utilize to meet
8 participation goals:

- 9 • Door-to-door canvassing;
- 10 • Direct mail;
- 11 • Flyers;
- 12 • Social media;
- 13 • Door hangers;
- 14 • Yard signs;
- 15 • Press releases;
- 16 • Community presentations and partnerships; and
- 17 • Inclusion in community publications such as newsletters, etc.

18 6. **Low Income Weatherization – Pay for Performance**

19 The Low-Income Weatherization program is designed to help Duke Energy Ohio
20 income-qualified customers reduce their energy consumption and lower their
21 energy cost. This program will specifically focus on customers that meet the
22 income qualification level (*i.e.*, income below 200 percent of the federal poverty
23 level). The weatherization program will also educate customers on their energy

1 usage and other opportunities that can help reduce energy consumption and lower
2 energy costs.

3 Duke Energy will partner with community agencies to provide customers
4 with weatherization services and other energy efficient measures such as
5 refrigerators, water saving devices and efficient lighting. Agencies will be
6 reimbursed a set fee per measure installed in Duke Energy customers' homes based
7 on the average kWh savings per measure.

8 The marketing strategy for this program will focus on utilizing low income
9 agencies as the primary method for recruiting and informing customers of this
10 program. Additional marketing will include mailers, flyers and direct contact
11 between agencies and customers.

12 7. **Power Manager[®]**

13 Power Manager[®] is a residential load control program. It is used to reduce
14 electricity demand by controlling residential air conditioners during periods of peak
15 demand. A load control device is attached to the outdoor air conditioning unit of
16 participating customers. The device enables Duke Energy Ohio to cycle central air
17 conditioning systems off and on when the load on Duke Energy Ohio's system
18 reaches peak levels.

19 Power Manager[®] is offered to residential customers that have a functional
20 central air conditioning system with an outside compressor unit. Customers must
21 agree to have the control device installed on their A/C system and to allow Duke
22 Energy Ohio to control their A/C system during Power Manager[®] events.

23 Customers participating in this program receive a one-time enrollment

1 incentive and a bill credit for Power Manager® events. Customers who select Option
2 A, which cycles their air conditioner to achieve a 1.0 kW load reduction, receive a
3 \$25.00 credit at installation. Customers selecting Option B, which cycles their air
4 conditioner to achieve a 1.5 kW load reduction, receive a \$35.00 credit at
5 installation. For each control season (May through Sept.), customers will receive a
6 minimum of \$12.00 for Option A and \$18.00 for Option B, in credits.

7 Power Manager® is marketed through targeted direct mail campaigns,
8 targeted e-mail campaigns, outbound telemarketing and on Duke Energy Ohio's
9 Web site. Customers can enroll in Power Manager® by: phone call, returning the
10 enrollment form included in the marketing material or through Duke Energy Ohio's
11 Web site. Duke Energy Ohio will contract with a third party to install and perform
12 field work associated with the load control devices.

13 **Q. WHY DID DUKE ENERGY INCLUDE DSM RELATED RESIDENTIAL**
14 **PROGRAMS IN THIS 2021-2022 PORTFOLIO?**

15 A. Duke Energy Ohio has been entering the PJM Auctions for the purpose of lowering
16 program costs for customers for several years. Continuing the Power Manager®
17 program is part of Duke Energy Ohio's plan to support the commitments made by
18 selling resources into the PJM Base Residual Auction.

19 **Q. DID DUKE ENERGY OHIO REFER TO ITS MARKET ASSESSMENT**
20 **AND ACTION PLAN FOR ELECTRIC DSM, AS FILED WITH THE**
21 **COMMISSION IN DEVELOPING THIS PORTFOLIO OF PROGRAMS?**

22 A. Yes.

III. CONCLUSION

1 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

2 **A. Yes.**

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Summary: Testimony Direct Testimony of Rick L. Mifflin on Behalf of Duke Energy Ohio, Inc.
electronically filed by Carys Cochern on behalf of Duke Energy