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01 March 2016

Mr. Tripp Coston
Florida Public Service Commission
2540 Shumard Oak Blvd
Tallahassee, Florida 32399-0688

Subject: 2016 Orlando Utilities Commission Annual Conservation Report

Dear Mr. Coston

Attached please find an electronic version (in PDF format) of the 2016 Orlando Utilities Commission (OUC) Annual Conservation Report. The 2016 OUC Annual Conservation Report was prepared by Black & Veatch and is being submitted by Black & Veatch on behalf of OUC. In addition to this electronic version, five hardcopies of this report are being sent to your attention via FedEx.

If you have any questions about this report, please do not hesitate to contact me.

Very truly yours,
BLACK & VEATCH CORPORATION

/s/ Bradley Kushner

Bradley Kushner
Director
Black & Veatch Management Consulting, LLC


# Orlando Utilities Commission
# 2016 Annual Conservation Report

**March 2016**

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# 1.0 Introduction

In accordance with Rule 25-17.0021, Florida Administrative Code, the Florida Public Service Commission (FPSC) must establish numeric conservation goals for the Orlando Utilities Commission (OUC) at least once every five years. In addition, OUC must file an annual report showing the status of its numeric conservation goals.

## *1.1 Background of OUC's Current Numeric Conservation Goals*

OUC's residential and commercial/industrial numeric conservation goals for the 2015 through 2024 period were established by the PSC pursuant to Order No. PSC-13-0645-PAA-EU. OUC's 2015 Demand-Side Management Plan (DSM Plan) was approved by the FPSC's Consummating Order (PSC-15-0359-CO-EG, which confirmed Order No. PSC-15-0325-PPA-EG, the FPSC Notice of Proposed Agency Action that recommended approval of OUC's DSM Plan) on September 8, 2015. OUC's DSM Plan sets forth the programs that OUC anticipated offering to achieve the numeric conservation goals established by the FPSC. The approved numeric conservation goals are summarized in Section 2.0 of this report, and OUC's actual DSM reductions are presented in Section 3.0 of this report.

## *1.2 OUC's Conservation and DSM Programs*

OUC has been increasingly emphasizing its DSM and conservation programs to increase customer awareness of such programs. Not only do these programs help customers save money by saving energy, the programs help OUC reduce emissions of greenhouse gases and better position OUC to meet possible future greenhouse gas regulations. It should be noted that government mandates have forced manufacturers to increase their efficiency standards, thereby decreasing the incremental amount of energy savings achievable. In addition, the efficiency of new generation has increased and natural gas prices have remained at or near historic lows for the last several years, and look to continue to do so for the near-future. These appliance and generating unit efficiency improvements, coupled with low natural gas prices, have mitigated to some degree the effectiveness of DSM and conservation programs, as the incremental benefit of such programs is partially offset by overall efficiency increases in the marketplace as a whole.

The following two sections of this report provide more specific details concerning the DSM and conservation programs offered by OUC in calendar year 2015 (Section 2.0), and present the participation levels and associated numeric savings for each of OUC's quantifiable conservation programs which were offered in 2015 (Section 3.0) consistent with OUC's submitted DSM Plan. As noted in Order No. PSC-15-0325-PAA-EG, annual energy reductions associated with OUC's residential and commercial/industrial energy audits will no longer be

counted towards achieving DSM goals. As such, Tables 3-1 through 3-3 do not reflect energy reductions associated with OUC's audit programs.

The conservation programs included in the DSM Plan and offered to OUC's customers in 2015 included the following:

- Residential Home Energy Survey Program – Walk-Through, DVD, and On-Line
- Residential Duct Repair/Replacement Rebate Program
- Residential Ceiling Insulation Upgrade Rebate Program
- Residential Window Film/Solar Screen Rebate Program
- Residential High Performance Windows Rebate Program
- Residential Efficient Electric Heat Pump Rebate Program
- Residential New Home Rebate Program
- Residential Efficiency Delivered Program
- Commercial Energy Audits Program
- Commercial Efficient Electric Heat Pump Rebate Program
- Commercial Duct Repair/Replacement Rebate Program
- Commercial Window Film/Solar Screen Rebate Program
- Commercial Ceiling Insulation Rebate Program
- Commercial Cool/Reflective Roof Rebate Program

# 2.0 Conservation Goals and Demand-Side Management Plan

## 2.1 Approved Numeric Conservation Goals

The FPSC-established annual goals for both annual peak demand and energy reductions are presented in Table 2-1.

Table 2-1
OUC Approved Numeric Conservation Goals

| Year | Residential Reduction | | | Commercial/Industrial Reduction | | |
|---|---|---|---|---|---|---|
| | Summer MW | Winter MW | GWh | Summer MW | Winter MW | GWh |
| 2015 | 0.05 | 0.04 | 0.14 | 0.20 | 0.49 | 0.34 |
| 2016 | 0.08 | 0.08 | 0.30 | 0.28 | 0.57 | 0.50 |
| 2017 | 0.12 | 0.12 | 0.45 | 0.30 | 0.70 | 0.66 |
| 2018 | 0.16 | 0.16 | 0.60 | 0.36 | 0.70 | 0.75 |
| 2019 | 0.20 | 0.21 | 0.72 | 0.37 | 0.66 | 0.82 |
| 2020 | 0.21 | 0.21 | 0.77 | 0.39 | 0.70 | 0.85 |
| 2021 | 0.21 | 0.22 | 0.80 | 0.40 | 0.78 | 0.86 |
| 2022 | 0.19 | 0.20 | 0.72 | 0.37 | 0.78 | 0.85 |
| 2023 | 0.19 | 0.18 | 0.66 | 0.39 | 0.74 | 0.82 |
| 2024 | 0.16 | 0.16 | 0.57 | 0.36 | 0.70 | 0.80 |
| Total | 1.57 | 1.58 | 5.73 | 3.42 | 6.82 | 7.25 |

## 2.2 OUC Demand-Side Management Programs

As shown in Table 2-1, the FPSC has established residential and commercial/industrial conservation goals for OUC for the 2015 through 2024 period. OUC offered various programs during calendar year 2015 and each of these programs is described further in the remainder of this section.

### *2.2.1 Residential Home Energy Survey Program*

OUC has been offering home energy surveys dating back to the late 1970's. The home energy walk-through surveys were designed to provide residential customers with recommended energy efficiency measures and practices customers can implement. The Residential Energy Survey Program consists of three measures: the Residential Energy Walk-Through Survey, the Residential Energy Survey DVD, and an interactive Online Energy Survey. These measures are available to both single family and multi-family residential customers.

The Residential Energy Walk-Through Survey includes a complete examination of the attic; heating, ventilation, and air conditioning (HVAC) system; air duct and air returns; window caulking; weather stripping around doors; faucets and toilets; and lawn sprinkler systems. OUC provides participating customers specific tips on conserving electricity and water as well as details on customer rebate programs. OUC Conservation Specialists are using this walk-through type audit as a means of motivating OUC customers to participate in other conservation programs and qualify for appropriate rebates.

A Residential Energy Survey Video was first offered in 2000 by OUC and is now available to OUC customers in an interactive DVD format. The DVD is free and is distributed in English and Spanish to OUC customers by request. The DVD was developed to further assist OUC customers in surveying their homes for potential energy saving opportunities. The DVD walks the customer through a complete visual assessment of energy and water efficiency in his or her home. A checklist brochure to guide the customer through the audit accompanies the DVD. The DVD has several benefits over the walk-through survey, including the convenience of viewing the DVD at any time without a scheduled appointment and the ability to watch the DVD numerous times. In addition to the Energy Walk-Through and the DVD Surveys, OUC offers customers an interactive Online Home Energy Audit. The interactive Online Home Energy Audit is available on OUC's web sites at http://www.OUC.com.

One of the primary benefits of the Residential Energy Survey Program is the education it provides to customers on energy conservation measures and ways their lifestyle can directly affect their energy use. Customers participating in the Energy Survey Program are informed about conservation measures that they can implement. Customers will benefit from the increased efficiency in their homes, and decreased electric and water bills.

Participation in the Walk-Through Energy Survey has been consistently strong over the past several years and interest in the Energy Survey DVD, as well as the interactive Online Home Energy Audit, has been high since the measures were first introduced. Feedback from customers who have taken advantage of the surveys has been very positive.

The Home Energy Audit rates how efficient a customer's home energy use is and where one can make improvements to lower utility bills. Participation is tracked through service orders that are produced when appointments are scheduled and completed or the DVD is mailed. Online Surveys are tracked through the service provider (Apogee), who produces monthly activity reports.

### *2.2.2 Residential Duct Repair/Replacement Rebate Program*

The Duct Repair Rebate Program originated in 2000 and is designed to encourage customers to repair leaking ducts on existing systems. Qualifying customers must have an existing central air conditioning system of 5.5 tons or less and ducts must be sealed with mastic

and fabric tape or any other Underwriters Laboratory (UL) approved duct tape. Participating customers receive a rebate for 100 percent of the cost of duct repairs on their homes, up to $160.

Customers can participate by submitting a rebate application form available online at http://www.OUC.com. Proofs of purchase and/or receipts are required to be attached to the application and repairs can be performed by a contractor or the customer. Participation is tracked based on the number of rebates processed. Typically these rebates are credited on the customer's bill, or a check can be processed and sent to the property owner who may have paid for the improvement.

### *2.2.3 Residential Ceiling Insulation Upgrade Rebate Program*

The attic is the easiest place to add insulation and lower total energy costs throughout the seasons. The Ceiling Insulation Rebate Program has been offered for several years and is designed to encourage customers to upgrade their attic insulation. Participating customers receive $0.05 per square foot for upgrading their attic insulation up to R-30. If the customer arranges an OUC pre-inspection and it is verified the existing insulation is R-11 or less, OUC will pay a rebate of $0.14 per square foot.

Customers can participate by submitting a rebate application form available online at http://www.OUC.com. Proofs of purchase and/or receipts are required to be attached to the application and repairs can be performed by a contractor or the customer. Participation is tracked based on the number of rebates processed. Typically these rebates are credited on the customer's bill, or a check can be processed and sent to the property owner who may have paid for the improvement.

### *2.2.4 Residential Window Film/Solar Screen Rebate Program.*

Installing solar window film on pre-existing homes can help reflect the heat during hot summer days and help the efficiency of home cooling units. The Window Film/Solar Screen Rebate Program has been offered for several years and is designed to encourage customers to install solar shading on their windows. Participating customers will receive a rebate in the amount of $1 per square foot for installation of solar shading film with a shading coefficient of 0.5 or less on east-, west, and south-facing windows.

Customers can participate by submitting a rebate application form available online at http://www.OUC.com. Proofs of purchase or receipts are required to be attached to the application and repairs can be performed by a contractor or the customer. Participation is tracked based on the number of rebates processed. Typically these rebates are credited on the customer's bill, or a check can be processed and sent to the property owner who may have paid for the improvement.

### *2.2.5 Residential High Performance Windows Rebate Program.*

Energy-efficient windows can help minimize heating, cooling, and lighting costs. The High Performance Windows Rebate Program has been offered for several years and is designed to encourage customers to install windows that improve energy efficiency in their homes. Customers will receive a $2 rebate per square foot for the purchase of ENERGY STAR® rated energy efficient windows.

Customers can participate by submitting a rebate application form available online at http://www.OUC.com. Proofs of purchase and/or receipts are required to be attached to the application and repairs can be performed by a contractor or the customer. Participation is tracked based on the number of rebates processed. Typically these rebates are credited on the customer's bill, or a check can be processed and sent to the property owner who may have paid for the improvement.

### *2.2.6 Residential Efficient Electric Heat Pump Rebate Program.*

The Efficient Electric Heat Pump Rebate Program provides rebates to qualifying customers in existing homes who install heat pumps having a seasonal energy efficiency ratio (SEER) of 15.0 or higher. Customers will obtain a rebate in the form of a credit on their bill ranging from $80 to $1,275, depending upon the SEER rating and capacity (tons) of the new heat pump. The following table illustrates the incentives available depending on the size and efficiency of the Heat Pump installed.

| | | Heat Pump SEER | | | |
|---|---|---|---|---|---|
| | | 15 | 16 | 17 | 18 |
| Heat Pump Size (Tons) | 1 | $80 | $130 | $175 | $215 |
| | 1 1/2 | 145 | 220 | 290 | 350 |
| | 2 | 205 | 310 | 400 | 480 |
| | 2 1/2 | 270 | 400 | 515 | 615 |
| | 3 | 335 | 490 | 625 | 745 |
| | 3 1/2 | 395 | 580 | 735 | 880 |
| | 4 | 460 | 670 | 850 | 1,010 |
| | 4 1/2 | 525 | 755 | 960 | 1,145 |
| | 5 | 590 | 845 | 1,075 | 1,275 |

Customers can participate by submitting a rebate application form available online at http://www.OUC.com. Proofs of purchase or receipts are required to be attached to the application, and work must be performed by a contractor. Participation is tracked based on the number of rebates processed. Typically these rebates are credited on the customer's bill or a check can be processed and sent to the property owner who may have paid for the improvement.

### *2.2.7 Residential New Home Rebate Program*

Previously named The Residential Gold Ring Home Program, the program has been transformed into a more flexible "a la carte" program offering a variety of choices for the Builder or Home buyer. This transformation was based on feedback OUC received from the residential building community in order to increase the level of participation in OUC's program. The chart below reflects an example of the incentives available.

| Rebate | Rate of Rebate | Square Footage | Total |
|---|---|---|---|
| Cool/Reflective Roof | $0.04 per sq. ft. | 2,000 | $80 |
| Block Wall Insulation | $0.16 per sq. ft. | 1,100 | $176 |
| Ceiling Insulation Upgrade to R-38 | $0.04 per sq. ft. | 2,000 | $80 |
| Heat Pump | up to $1,275 | 2,000 | *$460 |
| Energy Star® Washing Machine | $100 | N/A | $100 |
| Energy Star® Heat Pump Water Heater | $650 | N/A | $650 |
| Solar Water Heater | $1000 | N/A | $1,000 |

### *2.2.8 Residential Efficiency Delivered Program.*

What was once referred to as the Home Energy Fix-Up Program has now been revamped and expanded to allow for any OUC customer both energy and water to participate and renamed the Efficiency Delivered program. The program is available to residential customers (single family homes) and provides up to $2,000 of energy and water efficiency upgrades based on the needs of the customer's home. A Conservation Specialist from OUC performs a survey at the home and determines which home improvements have the potential of saving the customer the most money. The program is an income based program which is the basis for how much OUC will help contribute toward the cost of improvements and consists of three household income tiers:

| Household Income | OUC Contribution |
|---|---|
| Less than $40,000 | 85% (not to exceed $1,700) |
| $40,001–$60,000 | 50% (not to exceed $1,000) |
| Greater than $60,000 | Rebates only |

- $40,000 or less OUC will contribute 85 percent of the total cost,

- $40,001 to $60,000 OUC will contribute 50 percent of the total cost,
- greater than $60,000 OUC will contribute the rebate incentives that apply toward the total cost.

Each customer must request and complete a free Residential Energy Survey. Ordinarily, Energy Survey recommendations require a customer to spend money replacing or adding energy conservation measures: however, customers may not have the discretionary income to implement these measures especially those in the lower income tier. Under this program, OUC will arrange for a licensed, approved contractor to perform the necessary repairs based on a negotiated and contracted rate. The remaining portion of the cost the customer is responsible for can be paid directly to OUC or over an interest-free 12-month period on the participant's monthly electric bill. To be eligible for this program, the customer's account must be in good credit standing with the exception of our low-income customers who are only required to have a current balance. Some of the improvements covered under this program include ceiling insulation, duct system repair, pipe insulation, window film, window caulk, door caulk, door weather stripping, door sweep, threshold plate, air filter replacement, toilet replacement, irrigation repairs, water flow restrictors and minor plumbing repairs.

The purpose of the program is to reduce the energy and water costs especially for low-income households, particularly those households with elderly persons, disabled persons and children. Through this program, OUC helps to lower the bills of customers who may have difficulty paying their bills, thereby decreasing the potential for costly service disconnect fees and late charges. OUC believes that this program will help customers afford other essential living expenses. For others, this program offers a one-stop-shop to facilitate the implementation of a whole suite of conservation measures at reasonable costs and pre-screened qualified contractors.

Efficiency Delivered contractor(s) are selected through a Request For Proposal (RFP) process on a routine basis. Eligible customers are referred to the participating contractor after the OUC Conservation Specialist inspection is complete. The Efficiency Delivered contractor then inspects the home and creates a proposal to install eligible measures. Once the customer accepts the proposal and signs the agreement the contractor calls the customer and schedules the work. Typically the work is completed within 45 days. Upon receipt of notice of completion and customer acceptance, payment to the contractor is processed and the customer's share of the conservation improvements is billed. Participation is tracked based on completed installations.

### *2.2.9 Commercial Energy Audit Program*

The Commercial/Industrial Energy Audit Program has been offered for several years and is focused on increasing the energy efficiency and energy conservation of commercial buildings

and includes a free survey comprised of a physical walk-through inspection of the commercial facility performed by highly trained and experienced energy experts. The survey will examine heating and air conditioning systems including duct work, refrigeration equipment, lighting, water heating, motors, process equipment, and the thermal characteristics of the building including insulation. Following the inspection the customer receives a written report detailing cost-effective recommendations to make the facility more energy and water efficient. Participating customers are encouraged to participate in other OUC commercial programs and directly benefit from energy conservation, which decreases their electric and water bills.

OUC customers can participate by calling the OUC Customer Service Call Center and requesting an appointment for a Walk-Through Energy. Participation is tracked through service orders that are produced when appointments are scheduled and completed.

### *2.2.10 Commercial Efficient Electric Heat Pump Rebate Program*

The Commercial Heat Pump Rebate Program provides rebates to qualifying customers in existing buildings who install heat pumps having a seasonal energy efficiency ratio (SEER) of 15.0 or higher. Customers will obtain a rebate in the form of a credit on their bill ranging from $80 to $1,275, depending upon the SEER rating and capacity (tons) of the new heat pump. The following table illustrates the incentives available depending on the size and efficiency of the heat pump installed.

| | | Heat Pump SEER | | | |
|---|---|---|---|---|---|
| | | 15 | 16 | 17 | 18 |
| Heat Pump Size (Tons) | 1 | $ 80 | $ 130 | $ 175 | $ 215 |
| | 1 1/2 | 145 | 220 | 290 | 350 |
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| | 2 1/2 | 270 | 400 | 515 | 615 |
| | 3 | 335 | 490 | 625 | 745 |
| | 3 1/2 | 395 | 580 | 735 | 880 |
| | 4 | 460 | 670 | 850 | 1,010 |
| | 4 1/2 | 525 | 755 | 960 | 1,145 |
| | 5 | 590 | 845 | 1,075 | 1,275 |

Customers can participate by submitting a rebate application form available online at http://www.OUC.com. Proofs of purchase and/or receipts are required to be attached to the application and repairs can be performed by a contractor. Participation is tracked based on the number of rebates processed. Typically these rebates are credited on the customer's bill, or a check can be processed and sent to the property owner who may have paid for the improvement.

### *2.2.11 Commercial Duct Repair Rebate Program*

The Duct Repair Rebate program started in 2009. OUC will rebate 100 percent of cost, up to $160. Qualifying customers must have an existing central air conditioning system of 5.5 tons or less and ducts must be sealed with mastic and fabric tape or Underwriters Laboratory (UL) approved duct tape.

Customers can participate by submitting a rebate application form available online at http://www.OUC.com. Proofs of purchase and/or receipts are required to be attached to the application and repairs can be performed by a contractor. Participation is tracked based on the number of rebates processed. Typically these rebates are credited on the customer's bill, or a check can be processed and sent to the property owner who may have paid for the improvement.

### *2.2.12 Commercial Window Film/Solar Screen Rebate Program*

The Commercial Window Film/Solar Screen rebate program started in 2009 and are designed to help reflect the heat during hot summer days and retain heat on cool winter days. OUC will rebate customers $1 per square foot for window tinting and solar screening with a solar heat gain coefficient (SHGC) of 0.44 or shading coefficient of 0.5 or less.

Customers can participate by submitting a rebate application form available online at http://www.OUC.com. Proofs of purchase and/or receipts are required to be attached to the application and repairs can be performed by a contractor. Participation is tracked based on the number of rebates processed. Typically these rebates are credited on the customer's bill, or a check can be processed and sent to the property owner who may have paid for the improvement.

### *2.2.13 Commercial Ceiling Insulation Rebate Program*

The Commercial Ceiling Insulation Rebate Program started in 2009 and was designed to increase a building's resistance to heat loss and gain. Participating customers receive $0.05 per square foot, for upgrading their attic insulation up to R-30. If the customer arranges an OUC pre-inspection and it is verified the existing insulation is R-11 or less, OUC will pay a rebate of $0.14 per square foot.

Customers can participate by submitting a rebate application form available online at http://www.OUC.com. Proofs of purchase and/or receipts are required to be attached to the application and repairs can be performed by a contractor. Participation is tracked based on the number of rebates processed. Typically these rebates are credited on the customer's bill, or a check can be processed and sent to the property owner who may have paid for the improvement.

### *2.2.14 Commercial Cool/Reflective Roof Rebate Program*

The Commercial Cool/Reflective Roof Rebate Program started in 2009 and was designed to reflect the sun's rays and lower roof surface temperature while increasing the lifespan of the

roof. OUC will rebate customers at $0.14 per square foot for ENERGY STAR® cool/reflective roofing that has an initial solar reflectance greater than or equal to 0.70.

Customers can participate by submitting a rebate application form available online at http://www.OUC.com. Proofs of purchase and/or receipts are required to be attached to the application and repairs can be performed by a contractor. Participation is tracked based on the number of rebates processed. Typically these rebates are credited on the customer's bill, or a check can be processed and sent to the property owner who may have paid for the improvement.

# 3.0 Status of OUC Approved Numeric Goals

Tables 3-1 through 3-3 illustrate OUC's actual demand and energy reductions versus the peak demand and energy reductions approved by the FPSC. As shown in Tables 3-1 through 3-3, OUC exceeded each of the FPSC-approved peak demand and energy reductions in 2015 [i.e. summer and winter peak demand (MW) and annual energy (GWh) for residential and commercial/industrial customer classes].

As noted in Order No. PSC-15-0325-PAA-EG, annual energy reductions associated with OUC's residential and commercial/industrial energy audits will no longer be counted towards achieving DSM goals. As such, Tables 3-1 through 3-3 do not reflect energy reductions associated with OUC's audit programs.

Tables 3-4 through 3-22 present the annual demand and energy savings for each of the directly quantifiable programs offered by OUC during calendar year 2015. Each table also includes the actual program costs and participation for 2015 and participation projections for years 2016 through 2025, unless otherwise noted. The utility costs associated with the programs have been updated based on actual costs incurred during calendar year 2015. Unless otherwise noted, actual cumulative penetration rates for each program reflect 2015 as the base year and do not consider customer participation prior to 2015.

Table 3-1
Comparison of Actual Conservation Reductions to FPSC-Approved Numeric Conservation Goals – Residential Programs

| Calendar Year | Winter Peak kW Reduction | | Summer Peak kW Reduction | | MWh Energy Reduction | |
|---|---|---|---|---|---|---|
| | Total Achieved Reduction | FPSC-Approved Goals | Total Achieved Reduction | FPSC-Approved Goals | Total Achieved Reduction | FPSC-Approved Goals |
| 2015 | 369 | 40 | 447 | 50 | 845 | 140 |
| 2016 | | 80 | | 80 | | 300 |
| 2017 | | 120 | | 120 | | 450 |
| 2018 | | 160 | | 160 | | 600 |
| 2019 | | 210 | | 200 | | 720 |
| 2020 | | 210 | | 210 | | 770 |
| 2021 | | 220 | | 210 | | 800 |
| 2022 | | 200 | | 190 | | 720 |
| 2023 | | 180 | | 190 | | 660 |
| 2024 | | 160 | | 160 | | 570 |

Table 3-2
Comparison of Actual Conservation Reductions to FPSC-Approved Numeric Conservation Goals – Commercial/Industrial Programs

| Calendar Year | Winter Peak kW Reduction | | Summer Peak kW Reduction | | MWh Energy Reduction | |
|---|---|---|---|---|---|---|
| | Total Achieved Reduction | FPSC-Approved Goals | Total Achieved Reduction | FPSC-Approved Goals | Total Achieved Reduction | FPSC-Approved Goals |
| 2015 | 743 | 490 | 2,181 | 200 | 13,367 | 340 |
| 2016 | | 570 | | 280 | | 500 |
| 2017 | | 700 | | 300 | | 660 |
| 2018 | | 700 | | 360 | | 750 |
| 2019 | | 660 | | 370 | | 820 |
| 2020 | | 700 | | 390 | | 850 |
| 2021 | | 780 | | 400 | | 560 |
| 2022 | | 780 | | 370 | | 850 |
| 2023 | | 740 | | 390 | | 820 |
| 2024 | | 700 | | 360 | | 800 |

Note: OUC is working with the City of Orlando to retrofit existing streetlights with more efficient LED lighting. The demand and energy reductions corresponding to the City of Orlando's streetlight retrofit program are included in the total achieved reductions reflected in this table. Demand and energy reductions from OUC's Indoor Lighting Rebates, Indoor Lighting Billed Solutions, and Custom Incentives are included in the total achieved reductions reflected in this table.

Table 3-3
Comparison of Actual Conservation Reductions to FPSC-Approved
Numeric Conservation Goals – Residential and Commercial/Industrial Programs

| Calendar Year | Winter Peak kW Reduction | | Summer Peak kW Reduction | | MWh Energy Reduction | |
|---|---|---|---|---|---|---|
| | Total Achieved Reduction | FPSC-Approved Goals | Total Achieved Reduction | FPSC-Approved Goals | Total Achieved Reduction | FPSC-Approved Goals |
| 2015 | 1,112 | 530 | 2,628 | 250 | 14,212 | 480 |
| 2016 | | 650 | | 360 | | 800 |
| 2017 | | 820 | | 420 | | 1,110 |
| 2018 | | 860 | | 520 | | 1,350 |
| 2019 | | 870 | | 570 | | 1,540 |
| 2020 | | 910 | | 600 | | 1,620 |
| 2021 | | 1,000 | | 610 | | 1,360 |
| 2022 | | 980 | | 560 | | 1,570 |
| 2023 | | 920 | | 580 | | 1,480 |
| 2024 | | 860 | | 520 | | 1,370 |

Note: OUC is working with the City of Orlando to retrofit existing streetlights with more efficient LED lighting. The demand and energy reductions corresponding to the City of Orlando's streetlight retrofit program are included in the total achieved reductions reflected in this table. Demand and energy reductions from OUC's Indoor Lighting Rebates, Indoor Lighting Billed Solutions, and Custom Incentives are included in the total achieved reductions reflected in this table.

## Table 3-4
## Residential Home Energy Walk-Through Survey – Single Family

| | |
|---|---|
| **Program Name:** | Residential Home Energy Survey |
| **Program Start Date:** | 2015 |
| **Measure:** | Residential Energy Walk Through Survey - Single Family |
| **Reporting Period:** | 2015 |

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| Calendar Year | Total Number of Customers | Total Number of Eligible Customers | Projected Annual Average Number of Program Participants | Projected Cumulative Number of Program Participants | Projected Cumulative Penetration Level % (E/C*100) | Actual Annual Number of Program Participants | Actual Cumulative Number of Program Participants | Actual Cumulative Penetration Level % (H/C*100) | Actual Participation Over (Under) Projected Participants (H-E) |
| 2015 | 80,179 | 80,179 | 1,487 | 1,487 | 1.85% | 804 | 804 | 1.00% | (683) |
| 2016 | 81,032 | 81,032 | 1,487 | 2,974 | 3.67% | | | | |
| 2017 | 82,159 | 82,159 | 1,487 | 4,461 | 5.43% | | | | |
| 2018 | 83,835 | 83,835 | 1,487 | 5,948 | 7.09% | | | | |
| 2019 | 85,799 | 85,799 | 1,487 | 7,435 | 8.67% | | | | |
| 2020 | 88,022 | 88,022 | 1,487 | 8,922 | 10.14% | | | | |
| 2021 | 91,023 | 91,023 | 1,487 | 10,409 | 11.44% | | | | |
| 2022 | 94,075 | 94,075 | 1,487 | 11,896 | 12.65% | | | | |
| 2023 | 97,200 | 97,200 | 1,487 | 13,383 | 13.77% | | | | |
| 2024 | 100,165 | 100,165 | 1,487 | 14,870 | 14.85% | | | | |

| | |
|---|---|
| **Eligibility Level** | 100.0% |

| Annual Demand and Energy Savings | Per Installation | | Program Total | |
|---|---|---|---|---|
| | @meter | @generator | @meter | @generator |
| Summer kW Reduction | 0.00 | 0.00 | 0 | 0 |
| Winter kW Reduction | 0.00 | 0.00 | 0 | 0 |
| kWh Reduction | 263.00 | 273.26 | 211,347 | 219,589 |

| Costs | Per Participant | Program Total |
|---|---|---|
| Utility Nonrecurring Cost | $543.12 | $436,450 |
| Utility Recurring Cost | $0 | $0 |
| Utility Nonrecurring Rebate | $0 | $0 |
| Utility Recurring Rebate | $0 | $0 |

**Annual Benefits = $B_{npv} \times d/[1-(1+d)^{-n}]$ = ($677,200)**

**where:**

**$B_{npv}$ = cumulative present value of the net benefits over the life of the program for measures installed during the reporting period**

**d = 5.5% = discount rate (utility's after tax cost of capital)**

**n = 10 = life of the program**

*The Annual Benefits calculation is based on the Total Resource Cost (TRC) test results presented in OUC's 2015 DSM Plan [approved by Consummating Order issued September 8, 2015 (Order No. PSC-15-0359-CO-EG)] and utilizes the 5.5% discount rate and 10-year program life, consistent with the TRC calculations presented in OUC's 2015 DSM Plan.*

## Table 3-5
## Residential Home Energy Walk-Through Survey – Multi Family

| | |
|---|---|
| **Program Name:** | Residential Home Energy Survey |
| **Program Start Date:** | 2015 |
| **Measure:** | Residential Energy Walk Through Survey - Multi Family |
| **Reporting Period:** | 2015 |

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| Calendar Year | Total Number of Customers | Total Number of Eligible Customers | Projected Annual Average Number of Program Participants | Projected Cumulative Number of Program Participants | Projected Cumulative Penetration Level % (E/C*100) | Actual Annual Number of Program Participants | Actual Cumulative Number of Program Participants | Actual Cumulative Penetration Level % (H/C*100) | Actual Participation Over (Under) Projected Participants (H-E) |
| 2015 | 97,996 | 97,996 | 607 | 607 | 0.62% | 344 | 344 | 0.35% | (263) |
| 2016 | 99,039 | 99,039 | 607 | 1,214 | 1.23% | | | | |
| 2017 | 100,417 | 100,417 | 607 | 1,821 | 1.81% | | | | |
| 2018 | 102,465 | 102,465 | 607 | 2,428 | 2.37% | | | | |
| 2019 | 104,865 | 104,865 | 607 | 3,035 | 2.89% | | | | |
| 2020 | 107,583 | 107,583 | 607 | 3,642 | 3.39% | | | | |
| 2021 | 111,250 | 111,250 | 607 | 4,249 | 3.82% | | | | |
| 2022 | 114,980 | 114,980 | 607 | 4,856 | 4.22% | | | | |
| 2023 | 118,800 | 118,800 | 607 | 5,463 | 4.60% | | | | |
| 2024 | 122,424 | 122,424 | 607 | 6,070 | 4.96% | | | | |

| | |
|---|---|
| **Eligibility Level** | 100.0% |

| Annual Demand and Energy Savings | Per Installation | | Program Total | |
|---|---|---|---|---|
| | @meter | @generator | @meter | @generator |
| Summer kW Reduction | 0.00 | 0.00 | 0 | 0 |
| Winter kW Reduction | 0.00 | 0.00 | 0 | 0 |
| kWh Reduction | 200.00 | 207.80 | 68,880 | 71,566 |

| Costs | Per Participant | Program Total |
|---|---|---|
| Utility Nonrecurring Cost | $794 | $273,618 |
| Utility Recurring Cost | $0 | $0 |
| Utility Nonrecurring Rebate | $0 | $0 |
| Utility Recurring Rebate | $0 | $0 |

**Annual Benefits = $B_{npv} \times d/[1-(1+d)^{-n}]$ = ($398,497)**

**where:**

**$B_{npv}$ = cumulative present value of the net benefits over the life of the program for measures installed during the reporting period**

**d = 5.5% = discount rate (utility's after tax cost of capital)**

**n = 10 = life of the program**

*The Annual Benefits calculation is based on the Total Resource Cost (TRC) test results presented in OUC's 2015 DSM Plan [approved by Consummating Order issued September 8, 2015 (Order No. PSC-15-0359-CO-EG)] and utilizes the 5.5% discount rate and 10-year program life, consistent with the TRC calculations presented in OUC's 2015 DSM Plan.*

## Table 3-6
## Residential Home Energy DVD Survey – Single Family

| | |
|---|---|
| **Program Name:** | Residential Home Energy Survey |
| **Program Start Date:** | 2015 |
| **Measure:** | Residential Energy DVD Survey - Single Family |
| **Reporting Period:** | 2015 |

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| Calendar Year | Total Number of Customers | Total Number of Eligible Customers | Projected Annual Average Number of Program Participants | Projected Cumulative Number of Program Participants | Projected Cumulative Penetration Level % (E/C*100) | Actual Annual Number of Program Participants | Actual Cumulative Number of Program Participants | Actual Cumulative Penetration Level % (H/C*100) | Actual Participation Over (Under) Projected Participants (H-E) |
| **2015** | 80,179 | 80,179 | 605 | 605 | 0.75% | 24 | 24 | 0.03% | (581) |
| **2016** | 81,032 | 81,032 | 605 | 1,210 | 1.49% | | | | |
| **2017** | 82,159 | 82,159 | 605 | 1,815 | 2.21% | | | | |
| **2018** | 83,835 | 83,835 | 605 | 2,420 | 2.89% | | | | |
| **2019** | 85,799 | 85,799 | 605 | 3,025 | 3.53% | | | | |
| **2020** | 88,022 | 88,022 | 605 | 3,630 | 4.12% | | | | |
| **2021** | 91,023 | 91,023 | 605 | 4,235 | 4.65% | | | | |
| **2022** | 94,075 | 94,075 | 605 | 4,840 | 5.14% | | | | |
| **2023** | 97,200 | 97,200 | 605 | 5,445 | 5.60% | | | | |
| **2024** | 100,165 | 100,165 | 605 | 6,050 | 6.04% | | | | |

| | |
|---|---|
| **Eligibility Level** | 100.0% |

| Annual Demand and Energy Savings | Per Installation | | Program Total | |
|---|---|---|---|---|
| | @meter | @generator | @meter | @generator |
| **Summer kW Reduction** | 0.00 | 0.00 | 0 | 0 |
| **Winter kW Reduction** | 0.00 | 0.00 | 0 | 0 |
| **kWh Reduction** | 131.00 | 136.11 | 3,118 | 3,239 |

| Costs | Per Participant | Program Total |
|---|---|---|
| **Utility Nonrecurring Cost** | $66 | $1,568 |
| **Utility Recurring Cost** | $0 | $0 |
| **Utility Nonrecurring Rebate** | $0 | $0 |
| **Utility Recurring Rebate** | $0 | $0 |

**Annual Benefits = $B_{npv} \times d/[1-(1+d)^{-n}]$ = ($54,127)**

**where:**

**$B_{npv}$ = cumulative present value of the net benefits over the life of the program for measures installed during the reporting period**

**d = 5.5% = discount rate (utility's after tax cost of capital)**

**n = 10 = life of the program**

*The Annual Benefits calculation is based on the Total Resource Cost (TRC) test results presented in OUC's 2015 DSM Plan [approved by Consummating Order issued September 8, 2015 (Order No. PSC-15-0359-CO-EG)] and utilizes the 5.5% discount rate and 10-year program life, consistent with the TRC calculations presented in OUC's 2015 DSM Plan.*

## Table 3-7
## Residential Home Energy DVD Survey – Multi Family

| | |
|---|---|
| **Program Name:** | Residential Home Energy Survey |
| **Program Start Date:** | 2015 |
| **Measure:** | Residential Energy DVD Survey - Multi Family |
| **Reporting Period:** | 2015 |

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| Calendar Year | Total Number of Customers | Total Number of Eligible Customers | Projected Annual Average Number of Program Participants | Projected Cumulative Number of Program Participants | Projected Cumulative Penetration Level % (E/C*100) | Actual Annual Number of Program Participants | Actual Cumulative Number of Program Participants | Actual Cumulative Penetration Level % (H/C*100) | Actual Participation Over (Under) Projected Participants (H-E) |
| **2015** | 97,996 | 97,996 | 300 | 300 | 0.31% | 10 | 10 | 0.01% | (290) |
| **2016** | 99,039 | 99,039 | 300 | 600 | 0.61% | | | | |
| **2017** | 100,417 | 100,417 | 300 | 900 | 0.90% | | | | |
| **2018** | 102,465 | 102,465 | 300 | 1,200 | 1.17% | | | | |
| **2019** | 104,865 | 104,865 | 300 | 1,500 | 1.43% | | | | |
| **2020** | 107,583 | 107,583 | 300 | 1,800 | 1.67% | | | | |
| **2021** | 111,250 | 111,250 | 300 | 2,100 | 1.89% | | | | |
| **2022** | 114,980 | 114,980 | 300 | 2,400 | 2.09% | | | | |
| **2023** | 118,800 | 118,800 | 300 | 2,700 | 2.27% | | | | |
| **2024** | 122,424 | 122,424 | 300 | 3,000 | 2.45% | | | | |

| | |
|---|---|
| **Eligibility Level** | 100.0% |

| Annual Demand and Energy Savings | Per Installation | | Program Total | |
|---|---|---|---|---|
| | @meter | @generator | @meter | @generator |
| **Summer kW Reduction** | 0.00 | 0.00 | 0 | 0 |
| **Winter kW Reduction** | 0.00 | 0.00 | 0 | 0 |
| **kWh Reduction** | 100.00 | 103.90 | 1,020 | 1,060 |

| Costs | Per Participant | Program Total |
|---|---|---|
| **Utility Nonrecurring Cost** | $51 | $519 |
| **Utility Recurring Cost** | $0 | $0 |
| **Utility Nonrecurring Rebate** | $0 | $0 |
| **Utility Recurring Rebate** | $0 | $0 |

**Annual Benefits = $B_{npv} \times d/[1-(1+d)^{-n}]$ = ($20,609)**

**where:**

**$B_{npv}$ = cumulative present value of the net benefits over the life of the program for measures installed during the reporting period**

**d = 5.5% = discount rate (utility's after tax cost of capital)**

**n = 10 = life of the program**

*The Annual Benefits calculation is based on the Total Resource Cost (TRC) test results presented in OUC's 2015 DSM Plan [approved by Consummating Order issued September 8, 2015 (Order No. PSC-15-0359-CO-EG)] and utilizes the 5.5% discount rate and 10-year program life, consistent with the TRC calculations presented in OUC's 2015 DSM Plan.*

## Table 3-8
## Residential Home Energy Online Survey – Single Family

| | |
|---|---|
| **Program Name:** | Residential Home Energy Survey |
| **Program Start Date:** | 2015 |
| **Measure:** | Residential Energy Online Survey - Single Family |
| **Reporting Period:** | 2015 |

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| Calendar Year | Total Number of Customers | Total Number of Eligible Customers | Projected Annual Average Number of Program Participants | Projected Cumulative Number of Program Participants | Projected Cumulative Penetration Level % (E/C*100) | Actual Annual Number of Program Participants | Actual Cumulative Number of Program Participants | Actual Cumulative Penetration Level % (H/C*100) | Actual Participation Over (Under) Projected Participants (H-E) |
| **2015** | 80,179 | 80,179 | 806 | 806 | 1.01% | 921 | 921 | 1.15% | 115 |
| **2016** | 81,032 | 81,032 | 806 | 1,612 | 1.99% | | | | |
| **2017** | 82,159 | 82,159 | 806 | 2,418 | 2.94% | | | | |
| **2018** | 83,835 | 83,835 | 806 | 3,224 | 3.85% | | | | |
| **2019** | 85,799 | 85,799 | 806 | 4,030 | 4.70% | | | | |
| **2020** | 88,022 | 88,022 | 806 | 4,836 | 5.49% | | | | |
| **2021** | 91,023 | 91,023 | 806 | 5,642 | 6.20% | | | | |
| **2022** | 94,075 | 94,075 | 806 | 6,448 | 6.85% | | | | |
| **2023** | 97,200 | 97,200 | 806 | 7,254 | 7.46% | | | | |
| **2024** | 100,165 | 100,165 | 806 | 8,060 | 8.05% | | | | |

| | |
|---|---|
| **Eligibility Level** | 100.0% |

| Annual Demand and Energy Savings | Per Installation | | Program Total | |
|---|---|---|---|---|
| | @meter | @generator | @meter | @generator |
| **Summer kW Reduction** | 0.00 | 0.00 | 0 | 0 |
| **Winter kW Reduction** | 0.00 | 0.00 | 0 | 0 |
| **kWh Reduction** | 131.00 | 136.11 | 120,677 | 125,384 |

| Costs | Per Participant | Program Total |
|---|---|---|
| **Utility Nonrecurring Cost** | $99 | $91,533 |
| **Utility Recurring Cost** | $0 | $0 |
| **Utility Nonrecurring Rebate** | $0 | $0 |
| **Utility Recurring Rebate** | $0 | $0 |

**Annual Benefits = $B_{npv} \times d/[1-(1+d)^{-n}]$ = ($117,531)**

**where:**

**$B_{npv}$ = cumulative present value of the net benefits over the life of the program for measures installed during the reporting period**

**d = 5.5% = discount rate (utility's after tax cost of capital)**

**n = 10 = life of the program**

*The Annual Benefits calculation is based on the Total Resource Cost (TRC) test results presented in OUC's 2015 DSM Plan [approved by Consummating Order issued September 8, 2015 (Order No. PSC-15-0359-CO-EG)] and utilizes the 5.5% discount rate and 10-year program life, consistent with the TRC calculations presented in OUC's 2015 DSM Plan.*

## Table 3-9
## Residential Home Energy Online Survey – Multi Family

| | |
|---|---|
| **Program Name:** | Residential Home Energy Survey |
| **Program Start Date:** | 2015 |
| **Measure:** | Residential Energy Online Survey - Multi Family |
| **Reporting Period:** | 2015 |

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| Calendar Year | Total Number of Customers | Total Number of Eligible Customers | Projected Annual Average Number of Program Participants | Projected Cumulative Number of Program Participants | Projected Cumulative Penetration Level % (E/C*100) | Actual Annual Number of Program Participants | Actual Cumulative Number of Program Participants | Actual Cumulative Penetration Level % (H/C*100) | Actual Participation Over (Under) Projected Participants (H-E) |
| **2015** | 97,996 | 97,996 | 345 | 345 | 0.35% | 395 | 395 | 0.40% | 50 |
| **2016** | 99,039 | 99,039 | 345 | 690 | 0.70% | | | | |
| **2017** | 100,417 | 100,417 | 345 | 1,035 | 1.03% | | | | |
| **2018** | 102,465 | 102,465 | 345 | 1,380 | 1.35% | | | | |
| **2019** | 104,865 | 104,865 | 345 | 1,725 | 1.64% | | | | |
| **2020** | 107,583 | 107,583 | 345 | 2,070 | 1.92% | | | | |
| **2021** | 111,250 | 111,250 | 345 | 2,415 | 2.17% | | | | |
| **2022** | 114,980 | 114,980 | 345 | 2,760 | 2.40% | | | | |
| **2023** | 118,800 | 118,800 | 345 | 3,105 | 2.61% | | | | |
| **2024** | 122,424 | 122,424 | 345 | 3,450 | 2.82% | | | | |

| | |
|---|---|
| **Eligibility Level** | 100.0% |

| Annual Demand and Energy Savings | Per Installation | | Program Total | |
|---|---|---|---|---|
| | @meter | @generator | @meter | @generator |
| **Summer kW Reduction** | 0.00 | 0.00 | 0 | 0 |
| **Winter kW Reduction** | 0.00 | 0.00 | 0 | 0 |
| **kWh Reduction** | 100.00 | 103.90 | 39,480 | 41,020 |

| Costs | Per Participant | Program Total |
|---|---|---|
| **Utility Nonrecurring Cost** | $84 | $33,317 |
| **Utility Recurring Cost** | $0 | $0 |
| **Utility Nonrecurring Rebate** | $0 | $0 |
| **Utility Recurring Rebate** | $0 | $0 |

**Annual Benefits = $B_{npv} \times d/[1-(1+d)^{-n}]$ = ($43,062)**

**where:**

**$B_{npv}$ = cumulative present value of the net benefits over the life of the program for measures installed during the reporting period**

**d = 5.5% = discount rate (utility's after tax cost of capital)**

**n = 10 = life of the program**

*The Annual Benefits calculation is based on the Total Resource Cost (TRC) test results presented in OUC's 2015 DSM Plan [approved by Consummating Order issued September 8, 2015 (Order No. PSC-15-0359-CO-EG)] and utilizes the 5.5% discount rate and 10-year program life, consistent with the TRC calculations presented in OUC's 2015 DSM Plan.*

## Table 3-10
## Residential Duct Repair/Replacement Rebates

| | |
|---|---|
| **Program Name:** | Residential Duct Repair Rebate |
| **Program Start Date:** | 2015 |
| **Measure:** | Residential Duct Repair Rebate |
| **Reporting Period:** | 2015 |

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| Calendar Year | Total Number of Customers | Total Number of Eligible Customers | Projected Annual Average Number of Program Participants | Projected Cumulative Number of Program Participants | Projected Cumulative Penetration Level % (E/C*100) | Actual Annual Number of Program Participants | Actual Cumulative Number of Program Participants | Actual Cumulative Penetration Level % (H/C*100) | Actual Participation Over (Under) Projected Participants (H-E) |
| **2015** | 178,175 | 89,088 | 269 | 269 | 0.30% | 367 | 367 | 0.41% | 98 |
| **2016** | 180,072 | 90,036 | 269 | 538 | 0.60% | | | | |
| **2017** | 182,576 | 91,288 | 269 | 807 | 0.88% | | | | |
| **2018** | 186,300 | 93,150 | 269 | 1,076 | 1.16% | | | | |
| **2019** | 190,664 | 95,332 | 269 | 1,345 | 1.41% | | | | |
| **2020** | 195,606 | 97,803 | 269 | 1,614 | 1.65% | | | | |
| **2021** | 202,273 | 101,137 | 269 | 1,883 | 1.86% | | | | |
| **2022** | 209,055 | 104,528 | 269 | 2,152 | 2.06% | | | | |
| **2023** | 216,001 | 108,000 | 269 | 2,421 | 2.24% | | | | |
| **2024** | 222,589 | 111,294 | 269 | 2,690 | 2.42% | | | | |

| | |
|---|---|
| **Eligibility Level** | 50.0% |

| Annual Demand and Energy Savings | Per Installation | | Program Total | |
|---|---|---|---|---|
| | @meter | @generator | @meter | @generator |
| **Summer kW Reduction** | 0.22 | 0.23 | 81 | 84 |
| **Winter kW Reduction** | 0.29 | 0.30 | 108 | 112 |
| **kWh Reduction** | 306.06 | 318.00 | 112,324 | 116,705 |

| Costs | Per Participant | Program Total |
|---|---|---|
| **Utility Nonrecurring Cost** | $148 | $54,248 |
| **Utility Recurring Cost** | $0 | $0 |
| **Utility Nonrecurring Rebate** | $190 | $69,690 |
| **Utility Recurring Rebate** | $0 | $0 |

**Annual Benefits = $B_{npv} \times d/[1-(1+d)^{-n}]$ = ($412,546)**

**where:**

**$B_{npv}$ = cumulative present value of the net benefits over the life of the program for measures installed during the reporting period**

**d = 5.5% = discount rate (utility's after tax cost of capital)**

**n = 10 = life of the program**

*The Annual Benefits calculation is based on the Total Resource Cost (TRC) test results presented in OUC's 2015 DSM Plan [approved by Consummating Order issued September 8, 2015 (Order No. PSC-15-0359-CO-EG)] and utilizes the 5.5% discount rate and 10-year program life, consistent with the TRC calculations presented in OUC's 2015 DSM Plan.*

## Table 3-11
## Residential Ceiling Insulation Upgrade Rebates

| | |
|---|---|
| **Program Name:** | Residential Ceiling Insulation Rebate |
| **Program Start Date:** | 2015 |
| **Measure:** | Residential Ceiling Insulation Rebate |
| **Reporting Period:** | 2015 |

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| Calendar Year | Total Number of Customers | Total Number of Eligible Customers | Projected Annual Average Number of Program Participants | Projected Cumulative Number of Program Participants | Projected Cumulative Penetration Level % (E/C*100) | Actual Annual Number of Program Participants | Actual Cumulative Number of Program Participants | Actual Cumulative Penetration Level % (H/C*100) | Actual Participation Over (Under) Projected Participants (H-E) |
| 2015 | 178,175 | 43,903 | 253 | 253 | 0.58% | 125 | 125 | 0.28% | (128) |
| 2016 | 180,072 | 43,778 | 253 | 506 | 1.16% | | | | |
| 2017 | 182,576 | 43,525 | 253 | 759 | 1.74% | | | | |
| 2018 | 186,300 | 43,272 | 253 | 1,012 | 2.34% | | | | |
| 2019 | 190,664 | 43,019 | 253 | 1,265 | 2.94% | | | | |
| 2020 | 195,606 | 42,766 | 253 | 1,518 | 3.55% | | | | |
| 2021 | 202,273 | 42,513 | 253 | 1,771 | 4.17% | | | | |
| 2022 | 209,055 | 42,260 | 253 | 2,024 | 4.79% | | | | |
| 2023 | 216,001 | 42,007 | 253 | 2,277 | 5.42% | | | | |
| 2024 | 222,589 | 41,754 | 253 | 2,530 | 6.06% | | | | |

| | |
|---|---|
| **Eligibility Level** | 25.0% |

Initial eligibility in 2005.

| Annual Demand and Energy Savings | Per Installation | | Program Total | |
|---|---|---|---|---|
| | @meter | @generator | @meter | @generator |
| Summer kW Reduction | 0.17 | 0.18 | 22 | 23 |
| Winter kW Reduction | 0.32 | 0.33 | 40 | 42 |
| kWh Reduction | 459.10 | 477.00 | 57,388 | 59,626 |

| Costs | Per Participant | Program Total |
|---|---|---|
| Utility Nonrecurring Cost | $222 | $27,716 |
| Utility Recurring Cost | $0 | $0 |
| Utility Nonrecurring Rebate | $299 | $37,337 |
| Utility Recurring Rebate | $0 | $0 |

**Annual Benefits = $B_{npv} \times d/[1-(1+d)^{-n}]$ = ($348,639)**

**where:**

**$B_{npv}$ = cumulative present value of the net benefits over the life of the program for measures installed during the reporting period**

**d = 5.5% = discount rate (utility's after tax cost of capital)**

**n = 10 = life of the program**

*The Annual Benefits calculation is based on the Total Resource Cost (TRC) test results presented in OUC's 2015 DSM Plan [approved by Consummating Order issued September 8, 2015 (Order No. PSC-15-0359-CO-EG)] and utilizes the 5.5% discount rate and 10-year program life, consistent with the TRC calculations presented in OUC's 2015 DSM Plan.*

## Table 3-12
## Residential Window Film/Solar Screen Rebates

| | |
|---|---|
| **Program Name:** | Residential Window Film / Solar Screen Rebate |
| **Program Start Date:** | 2015 |
| **Measure:** | Residential Window Film / Solar Screen Rebate |
| **Reporting Period:** | 2015 |

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| Calendar Year | Total Number of Customers | Total Number of Eligible Customers | Projected Annual Average Number of Program Participants | Projected Cumulative Number of Program Participants | Projected Cumulative Penetration Level % (E/C*100) | Actual Annual Number of Program Participants | Actual Cumulative Number of Program Participants | Actual Cumulative Penetration Level % (H/C*100) | Actual Participation Over (Under) Projected Participants (H-E) |
| **2015** | 178,175 | 89,088 | 90 | 90 | 0.10% | 36 | 36 | 0.04% | (54) |
| **2016** | 180,072 | 90,036 | 90 | 180 | 0.20% | | | | |
| **2017** | 182,576 | 91,288 | 90 | 270 | 0.30% | | | | |
| **2018** | 186,300 | 93,150 | 90 | 360 | 0.39% | | | | |
| **2019** | 190,664 | 95,332 | 90 | 450 | 0.47% | | | | |
| **2020** | 195,606 | 97,803 | 90 | 540 | 0.55% | | | | |
| **2021** | 202,273 | 101,137 | 90 | 630 | 0.62% | | | | |
| **2022** | 209,055 | 104,528 | 90 | 720 | 0.69% | | | | |
| **2023** | 216,001 | 108,000 | 90 | 810 | 0.75% | | | | |
| **2024** | 222,589 | 111,294 | 90 | 900 | 0.81% | | | | |

| | |
|---|---|
| **Eligibility Level** | 50.0% |

| Annual Demand and Energy Savings | Per Installation | | Program Total | |
|---|---|---|---|---|
| | @meter | @generator | @meter | @generator |
| **Summer kW Reduction** | 0.03 | 0.04 | 1 | 1 |
| **Winter kW Reduction** | -0.01 | -0.01 | 0 | 0 |
| **kWh Reduction** | 106.64 | 110.79 | 3,839 | 3,989 |

| Costs | Per Participant | Program Total |
|---|---|---|
| **Utility Nonrecurring Cost** | $52 | $1,854 |
| **Utility Recurring Cost** | $0 | $0 |
| **Utility Nonrecurring Rebate** | $113 | $4,084 |
| **Utility Recurring Rebate** | $0 | $0 |

**Annual Benefits = $B_{npv} \times d/[1-(1+d)^{-n}]$ = ($97,502)**

**where:**

**$B_{npv}$ = cumulative present value of the net benefits over the life of the program for measures installed during the reporting period**

**d = 5.5% = discount rate (utility's after tax cost of capital)**

**n = 10 = life of the program**

*The Annual Benefits calculation is based on the Total Resource Cost (TRC) test results presented in OUC's 2015 DSM Plan [approved by Consummating Order issued September 8, 2015 (Order No. PSC-15-0359-CO-EG)] and utilizes the 5.5% discount rate and 10-year program life, consistent with the TRC calculations presented in OUC's 2015 DSM Plan.*

## Table 3-13
## Residential High Performance Window Rebates

| | |
|---|---|
| **Program Name:** | Residential High Performance Window Rebate |
| **Program Start Date:** | 2015 |
| **Measure:** | Residential High Performance Window Rebate |
| **Reporting Period:** | 2015 |

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| Calendar Year | Total Number of Customers | Total Number of Eligible Customers | Projected Annual Average Number of Program Participants | Projected Cumulative Number of Program Participants | Projected Cumulative Penetration Level % (E/C*100) | Actual Annual Number of Program Participants | Actual Cumulative Number of Program Participants | Actual Cumulative Penetration Level % (H/C*100) | Actual Participation Over (Under) Projected Participants (H-E) |
| **2015** | 178,175 | 89,088 | 197 | 197 | 0.22% | 188 | 188 | 0.21% | (9) |
| **2016** | 180,072 | 90,036 | 197 | 394 | 0.44% | | | | |
| **2017** | 182,576 | 91,288 | 197 | 591 | 0.65% | | | | |
| **2018** | 186,300 | 93,150 | 197 | 788 | 0.85% | | | | |
| **2019** | 190,664 | 95,332 | 197 | 985 | 1.03% | | | | |
| **2020** | 195,606 | 97,803 | 197 | 1,182 | 1.21% | | | | |
| **2021** | 202,273 | 101,137 | 197 | 1,379 | 1.36% | | | | |
| **2022** | 209,055 | 104,528 | 197 | 1,576 | 1.51% | | | | |
| **2023** | 216,001 | 108,000 | 197 | 1,773 | 1.64% | | | | |
| **2024** | 222,589 | 111,294 | 197 | 1,970 | 1.77% | | | | |

| | |
|---|---|
| **Eligibility Level** | 50.0% |

| Annual Demand and Energy Savings | Per Installation | | Program Total | |
|---|---|---|---|---|
| | @meter | @generator | @meter | @generator |
| **Summer kW Reduction** | 0.37 | 0.38 | 70 | 72 |
| **Winter kW Reduction** | 0.22 | 0.23 | 42 | 44 |
| **kWh Reduction** | 780.06 | 810.48 | 146,651 | 152,370 |

| Costs | Per Participant | Program Total |
|---|---|---|
| **Utility Nonrecurring Cost** | $377 | $70,827 |
| **Utility Recurring Cost** | $0 | $0 |
| **Utility Nonrecurring Rebate** | $345 | $64,836 |
| **Utility Recurring Rebate** | $0 | $0 |

**Annual Benefits = $B_{npv} \times d/[1-(1+d)^{-n}] =$ ($1,570,056)**

**where:**

**$B_{npv}$ = cumulative present value of the net benefits over the life of the program for measures installed during the reporting period**

**d = 5.5% = discount rate (utility's after tax cost of capital)**

**n = 10 = life of the program**

*The Annual Benefits calculation is based on the Total Resource Cost (TRC) test results presented in OUC's 2015 DSM Plan [approved by Consummating Order issued September 8, 2015 (Order No. PSC-15-0359-CO-EG)] and utilizes the 5.5% discount rate and 10-year program life, consistent with the TRC calculations presented in OUC's 2015 DSM Plan.*

## Table 3-14
## Residential Efficient Electric Heat Pump Rebates

| | |
|---|---|
| **Program Name:** | Residential Heat Pump Rebate |
| **Program Start Date:** | 2015 |
| **Measure:** | Residential Heat Pump Rebate |
| **Reporting Period:** | 2015 |

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| Calendar Year | Total Number of Customers | Total Number of Eligible Customers | Projected Annual Average Number of Program Participants | Projected Cumulative Number of Program Participants | Projected Cumulative Penetration Level % (E/C*100) | Actual Annual Number of Program Participants | Actual Cumulative Number of Program Participants | Actual Cumulative Penetration Level % (H/C*100) | Actual Participation Over (Under) Projected Participants (H-E) |
| **2015** | 178,175 | 5,345 | 1,013 | 1,013 | 18.95% | 1,057 | 1,057 | 19.77% | 44 |
| **2016** | 180,072 | 5,402 | 1,013 | 2,026 | 37.50% | | | | |
| **2017** | 182,576 | 5,477 | 1,013 | 3,039 | 55.48% | | | | |
| **2018** | 186,300 | 5,589 | 1,013 | 4,052 | 72.50% | | | | |
| **2019** | 190,664 | 5,720 | 1,013 | 5,065 | 88.55% | | | | |
| **2020** | 195,606 | 5,868 | 1,013 | 6,078 | 103.58% | | | | |
| **2021** | 202,273 | 6,068 | 1,013 | 7,091 | 116.86% | | | | |
| **2022** | 209,055 | 6,272 | 1,013 | 8,104 | 129.22% | | | | |
| **2023** | 216,001 | 6,480 | 1,013 | 9,117 | 140.69% | | | | |
| **2024** | 222,589 | 6,678 | 1,013 | 10,130 | 151.70% | | | | |

| | |
|---|---|
| **Eligibility Level** | 3.0% |

| Annual Demand and Energy Savings | Per Installation | | Program Total | |
|---|---|---|---|---|
| | @meter | @generator | @meter | @generator |
| **Summer kW Reduction** | 0.22 | 0.23 | 237 | 246 |
| **Winter kW Reduction** | 0.13 | 0.13 | 133 | 138 |
| **kWh Reduction** | 426.00 | 442.62 | 450,287 | 467,848 |

| Costs | Per Participant | Program Total |
|---|---|---|
| **Utility Nonrecurring Cost** | $250 | $263,759 |
| **Utility Recurring Cost** | $0 | $0 |
| **Utility Nonrecurring Rebate** | $551 | $582,115 |
| **Utility Recurring Rebate** | $0 | $0 |

**Annual Benefits = $B_{npv} \times d/[1-(1+d)^{-n}]$ =** **($668,710)** **($616,102)** **($275,177)** **($475,674)**

**where:** **(SEER 15)** **(SEER 16)** **(SEER 17)** **(SEER 18)**

**$B_{npv}$ = cumulative present value of the net benefits over the life of the program for measures installed during the reporting period**

**d = 5.5% = discount rate (utility's after tax cost of capital)**

**n = 10 = life of the program**

*The Annual Benefits calculation is based on the Total Resource Cost (TRC) test results presented in OUC's 2015 DSM Plan [approved by Consummating Order issued September 8, 2015 (Order No. PSC-15-0359-CO-EG)] and utilizes the 5.5% discount rate and 10-year program life, consistent with the TRC calculations presented in OUC's 2015 DSM Plan.*

## Table 3-15
## Residential New Home Rebate Program (formerly known as Gold Ring Home)

| | |
|---|---|
| **Program Name:** | New Home Rebate (Formerly Gold Ring) |
| **Program Start Date:** | 2015 |
| **Measure:** | New Home Rebate (Formerly Gold Ring) |
| **Reporting Period:** | 2015 |

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| Calendar Year | Total Number of Customers | Total Number of Eligible Customers | Projected Annual Average Number of Program Participants | Projected Cumulative Number of Program Participants | Projected Cumulative Penetration Level % (E/C*100) | Actual Annual Number of Program Participants | Actual Cumulative Number of Program Participants | Actual Cumulative Penetration Level % (H/C*100) | Actual Participation Over (Under) Projected Participants (H-E) |
| **2015** | 178,175 | 853 | 23 | 23 | 2.69% | 0 | 0 | 0.00% | (23) |
| **2016** | 180,072 | 1,127 | 23 | 46 | 4.08% | | | | |
| **2017** | 182,576 | 1,676 | 23 | 69 | 4.12% | | | | |
| **2018** | 186,300 | 1,964 | 23 | 92 | 4.68% | | | | |
| **2019** | 190,664 | 2,224 | 23 | 115 | 5.17% | | | | |
| **2020** | 195,606 | 3,001 | 23 | 138 | 4.60% | | | | |
| **2021** | 202,273 | 3,052 | 23 | 161 | 5.28% | | | | |
| **2022** | 209,055 | 3,125 | 23 | 184 | 5.89% | | | | |
| **2023** | 216,001 | 2,964 | 23 | 207 | 6.98% | | | | |
| **2024** | 222,589 | 2,964 | 23 | 230 | 7.76% | | | | |

| | | |
|---|---|---|
| **Eligibility Level** | 45.0% | of new construction |

| Annual Demand and Energy Savings | Per Installation | | Program Total | |
|---|---|---|---|---|
| | @meter | @generator | @meter | @generator |
| **Summer kW Reduction** | 0.89 | 0.92 | 0 | 0 |
| **Winter kW Reduction** | 1.01 | 1.05 | 0 | 0 |
| **kWh Reduction** | 1,313.50 | 1,364.73 | 0 | 0 |

| Costs | Per Participant | Program Total |
|---|---|---|
| **Utility Nonrecurring Cost** | #DIV/0! | $0 |
| **Utility Recurring Cost** | #DIV/0! | $0 |
| **Utility Nonrecurring Rebate** | #DIV/0! | $0 |
| **Utility Recurring Rebate** | #DIV/0! | $0 |

**Annual Benefits = $B_{npv} \times d/[1-(1+d)^{-n}]$ = ($2,486)**

**where:**

**$B_{npv}$ = cumulative present value of the net benefits over the life of the program for measures installed during the reporting period**

**d = 5.5% = discount rate (utility's after tax cost of capital)**

**n = 10 = life of the program**

*The Annual Benefits calculation is based on the Total Resource Cost (TRC) test results presented in OUC's 2015 DSM Plan [approved by Consummating Order issued September 8, 2015 (Order No. PSC-15-0359-CO-EG)] and utilizes the 5.5% discount rate and 10-year program life, consistent with the TRC calculations presented in OUC's 2015 DSM Plan.*

## Table 3-16
## Residential Efficiency Delivered (formerly known as Home Energy Fix-Up)

| | |
|---|---|
| **Program Name:** | Residential Efficiency Delivered |
| **Program Start Date:** | 2015 |
| **Measure:** | Residential Efficiency Delivered |
| **Reporting Period:** | 2015 |

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| Calendar Year | Total Number of Customers | Total Number of Eligible Customers | Projected Annual Average Number of Program Participants | Projected Cumulative Number of Program Participants | Projected Cumulative Penetration Level % (E/C*100) | Actual Annual Number of Program Participants | Actual Cumulative Number of Program Participants | Actual Cumulative Penetration Level % (H/C*100) | Actual Participation Over (Under) Projected Participants (H-E) |
| 2015 | 178,175 | 49,889 | 197 | 197 | 0.39% | 149 | 149 | 0.30% | (48) |
| 2016 | 180,072 | 50,420 | 197 | 394 | 0.78% | | | | |
| 2017 | 182,576 | 51,121 | 197 | 591 | 1.16% | | | | |
| 2018 | 186,300 | 52,164 | 197 | 788 | 1.51% | | | | |
| 2019 | 190,664 | 53,386 | 197 | 985 | 1.85% | | | | |
| 2020 | 195,606 | 54,770 | 197 | 1,182 | 2.16% | | | | |
| 2021 | 202,273 | 56,637 | 197 | 1,379 | 2.43% | | | | |
| 2022 | 209,055 | 58,535 | 197 | 1,576 | 2.69% | | | | |
| 2023 | 216,001 | 60,480 | 197 | 1,773 | 2.93% | | | | |
| 2024 | 222,589 | 62,325 | 197 | 1,970 | 3.16% | | | | |

| | |
|---|---|
| **Eligibility Level** | 28.0% |

| Annual Demand and Energy Savings | Per Installation | | Program Total | |
|---|---|---|---|---|
| | @meter | @generator | @meter | @generator |
| Summer kW Reduction | 0.24 | 0.25 | 36 | 37 |
| Winter kW Reduction | 0.36 | 0.37 | 53 | 55 |
| kWh Reduction | 483.25 | 502.10 | 72,004 | 74,812 |

| Costs | Per Participant | Program Total |
|---|---|---|
| Utility Nonrecurring Cost | $233 | $34,775 |
| Utility Recurring Cost | $0 | $0 |
| Utility Nonrecurring Rebate | $463 | $69,026 |
| Utility Recurring Rebate | $0 | $0 |

**Annual Benefits = $B_{npv} \times d/[1-(1+d)^{-n}]$ = ($504,488)**

**where:**

**$B_{npv}$ = cumulative present value of the net benefits over the life of the program for measures installed during the reporting period**

**d = 5.5% = discount rate (utility's after tax cost of capital)**

**n = 10 = life of the program**

*The Annual Benefits calculation is based on the Total Resource Cost (TRC) test results presented in OUC's 2015 DSM Plan [approved by Consummating Order issued September 8, 2015 (Order No. PSC-15-0359-CO-EG)] and utilizes the 5.5% discount rate and 10-year program life, consistent with the TRC calculations presented in OUC's 2015 DSM Plan.*

## Table 3-17
## Commercial Energy Audit

| | |
|---|---|
| **Program Name:** | Commercial Energy Audit |
| **Program Start Date:** | 2015 |
| **Measure:** | Commercial Energy Audit |
| **Reporting Period:** | 2015 |

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| Calendar Year | Total Number of Customers | Total Number of Eligible Customers | Projected Annual Average Number of Program Participants | Projected Cumulative Number of Program Participants | Projected Cumulative Penetration Level % (E/C*100) | Actual Annual Number of Program Participants | Actual Cumulative Number of Program Participants | Actual Cumulative Penetration Level % (H/C*100) | Actual Participation Over (Under) Projected Participants (H-E) |
| **2015** | 28,869 | 28,869 | 130 | 130 | 0.45% | 45 | 45 | 0.16% | (85) |
| **2016** | 29,558 | 29,558 | 130 | 260 | 0.88% | | | | |
| **2017** | 30,877 | 30,877 | 130 | 390 | 1.26% | | | | |
| **2018** | 31,432 | 31,432 | 130 | 520 | 1.65% | | | | |
| **2019** | 31,563 | 31,563 | 130 | 650 | 2.06% | | | | |
| **2020** | 29,499 | 29,499 | 130 | 780 | 2.64% | | | | |
| **2021** | 30,129 | 30,129 | 130 | 910 | 3.02% | | | | |
| **2022** | 31,201 | 31,201 | 130 | 1,040 | 3.33% | | | | |
| **2023** | 32,299 | 32,299 | 130 | 1,170 | 3.62% | | | | |
| **2024** | 33,341 | 33,341 | 130 | 1,300 | 3.90% | | | | |

| | |
|---|---|
| **Eligibility Level** | 100.0% |

| Annual Demand and Energy Savings | Per Installation | | Program Total | |
|---|---|---|---|---|
| | @meter | @generator | @meter | @generator |
| **Summer kW Reduction** | 0.15 | 0.15 | 7 | 7 |
| **Winter kW Reduction** | 0.15 | 0.15 | 7 | 7 |
| **kWh Reduction** | 848.60 | 881.70 | 38,187 | 39,676 |

| Costs | Per Participant | Program Total |
|---|---|---|
| **Utility Nonrecurring Cost** | $3,541 | $159,347 |
| **Utility Recurring Cost** | $0 | $0 |
| **Utility Nonrecurring Rebate** | $0 | $0 |
| **Utility Recurring Rebate** | $0 | $0 |

**Annual Benefits = $B_{npv} \times d/[1-(1+d)^{-n}]$ = ($151,985)**

**where:**

**$B_{npv}$ = cumulative present value of the net benefits over the life of the program for measures installed during the reporting period**

**d = 5.5% = discount rate (utility's after tax cost of capital)**

**n = 10 = life of the program**

*The Annual Benefits calculation is based on the Total Resource Cost (TRC) test results presented in OUC's 2015 DSM Plan [approved by Consummating Order issued September 8, 2015 (Order No. PSC-15-0359-CO-EG)] and utilizes the 5.5% discount rate and 10-year program life, consistent with the TRC calculations presented in OUC's 2015 DSM Plan.*

## Table 3-18
## Commercial Efficient Electric Heat Pump Rebate

| | |
|---|---|
| **Program Name:** | Commercial Heat Pump Rebate |
| **Program Start Date:** | 2015 |
| **Measure:** | Commercial Heat Pump Rebate |
| **Reporting Period:** | 2015 |

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| Calendar Year | Total Number of Customers | Total Number of Eligible Customers | Projected Annual Average Number of Program Participants | Projected Cumulative Number of Program Participants | Projected Cumulative Penetration Level % (E/C*100) | Actual Annual Number of Program Participants | Actual Cumulative Number of Program Participants | Actual Cumulative Penetration Level % (H/C*100) | Actual Participation Over (Under) Projected Participants (H-E) |
| **2015** | 28,869 | 1,347 | 40 | 40 | 2.97% | 10 | 10 | 0.74% | (30) |
| **2016** | 29,558 | 1,379 | 40 | 80 | 5.80% | | | | |
| **2017** | 30,877 | 1,441 | 40 | 120 | 8.33% | | | | |
| **2018** | 31,432 | 1,467 | 40 | 160 | 10.91% | | | | |
| **2019** | 31,563 | 1,473 | 40 | 200 | 13.58% | | | | |
| **2020** | 29,499 | 1,377 | 40 | 240 | 17.43% | | | | |
| **2021** | 30,129 | 1,406 | 40 | 280 | 19.91% | | | | |
| **2022** | 31,201 | 1,456 | 40 | 320 | 21.98% | | | | |
| **2023** | 32,299 | 1,507 | 40 | 360 | 23.88% | | | | |
| **2024** | 33,341 | 1,556 | 40 | 400 | 25.71% | | | | |

| | |
|---|---|
| **Eligibility Level** | 4.7% |

| Annual Demand and Energy Savings | Per Installation | | Program Total | |
|---|---|---|---|---|
| | @meter | @generator | @meter | @generator |
| **Summer kW Reduction** | 0.28 | 0.29 | 3 | 3 |
| **Winter kW Reduction** | 0.17 | 0.17 | 2 | 2 |
| **kWh Reduction** | 550.12 | 571.58 | 5,501 | 5,716 |

| Costs | Per Participant | Program Total |
|---|---|---|
| **Utility Nonrecurring Cost** | $27 | $271 |
| **Utility Recurring Cost** | $0 | $0 |
| **Utility Nonrecurring Rebate** | $480 | $4,800 |
| **Utility Recurring Rebate** | $0 | $0 |

**Annual Benefits = $B_{npv} \times d/[1-(1+d)^{-n}]$ =** ($3,583) ($25,773) ($38,124) ($32,423)
**where:** (SEER 15) (SEER 16) (SEER 17) (SEER 18)

**$B_{npv}$ = cumulative present value of the net benefits over the life of the program for measures installed during the reporting period**
**d = 5.5% = discount rate (utility's after tax cost of capital)**
**n = 10 = life of the program**

*The Annual Benefits calculation is based on the Total Resource Cost (TRC) test results presented in OUC's 2015 DSM Plan [approved by Consummating Order issued September 8, 2015 (Order No. PSC-15-0359-CO-EG)] and utilizes the 5.5% discount rate and 10-year program life, consistent with the TRC calculations presented in OUC's 2015 DSM Plan.*

## Table 3-19
## Commercial Duct Repair and Replacement Rebate

| | |
|---|---|
| **Program Name:** | Commercial Duct Repair Rebate |
| **Program Start Date:** | 2015 |
| **Measure:** | Commercial Duct Repair Rebate |
| **Reporting Period:** | 2015 |

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| Calendar Year | Total Number of Customers | Total Number of Eligible Customers | Projected Annual Average Number of Program Participants | Projected Cumulative Number of Program Participants | Projected Cumulative Penetration Level % (E/C*100) | Actual Annual Number of Program Participants | Actual Cumulative Number of Program Participants | Actual Cumulative Penetration Level % (H/C*100) | Actual Participation Over (Under) Projected Participants (H-E) |
| 2015 | 28,869 | 14,435 | 44 | 44 | 0.30% | 4 | 4 | 0.03% | (40) |
| 2016 | 29,558 | 14,779 | 44 | 88 | 0.60% | | | | |
| 2017 | 30,877 | 15,438 | 44 | 132 | 0.86% | | | | |
| 2018 | 31,432 | 15,716 | 44 | 176 | 1.12% | | | | |
| 2019 | 31,563 | 15,781 | 44 | 220 | 1.39% | | | | |
| 2020 | 29,499 | 14,750 | 44 | 264 | 1.79% | | | | |
| 2021 | 30,129 | 15,064 | 44 | 308 | 2.04% | | | | |
| 2022 | 31,201 | 15,600 | 44 | 352 | 2.26% | | | | |
| 2023 | 32,299 | 16,150 | 44 | 396 | 2.45% | | | | |
| 2024 | 33,341 | 16,671 | 44 | 440 | 2.64% | | | | |

| | |
|---|---|
| **Eligibility Level** | 50.0% |

| Annual Demand and Energy Savings | Per Installation | | Program Total | |
|---|---|---|---|---|
| | @meter | @generator | @meter | @generator |
| Summer kW Reduction | 0.22 | 0.23 | 1 | 1 |
| Winter kW Reduction | 0.29 | 0.30 | 1 | 1 |
| kWh Reduction | 375.36 | 390.00 | 1,501 | 1,560 |

| Costs | Per Participant | Program Total |
|---|---|---|
| Utility Nonrecurring Cost | $11 | $42 |
| Utility Recurring Cost | $0 | $0 |
| Utility Nonrecurring Rebate | $160 | $640 |
| Utility Recurring Rebate | $0 | $0 |

**Annual Benefits = $B_{npv} \times d/[1-(1+d)^{-n}]$ = ($261,143)**

**where:**

**$B_{npv}$ = cumulative present value of the net benefits over the life of the program for measures installed during the reporting period**

**d = 5.5% = discount rate (utility's after tax cost of capital)**

**n = 10 = life of the program**

*The Annual Benefits calculation is based on the Total Resource Cost (TRC) test results presented in OUC's 2015 DSM Plan [approved by Consummating Order issued September 8, 2015 (Order No. PSC-15-0359-CO-EG)] and utilizes the 5.5% discount rate and 10-year program life, consistent with the TRC calculations presented in OUC's 2015 DSM Plan.*

## Table 3-20
## Commercial Window Film/Solar Screen Rebate

| | |
|---|---|
| **Program Name:** | Commercial Window Film / Solar Screen Rebate |
| **Program Start Date:** | 2015 |
| **Measure:** | Commercial Window Film / Solar Screen Rebate |
| **Reporting Period:** | 2015 |

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| Calendar Year | Total Number of Customers | Total Number of Eligible Customers | Projected Annual Average Number of Program Participants | Projected Cumulative Number of Program Participants | Projected Cumulative Penetration Level % (E/C*100) | Actual Annual Number of Program Participants | Actual Cumulative Number of Program Participants | Actual Cumulative Penetration Level % (H/C*100) | Actual Participation Over (Under) Projected Participants (H-E) |
| **2015** | 28,869 | 27,426 | 9 | 9 | 0.03% | 6 | 6 | 0.02% | (3) |
| **2016** | 29,558 | 28,080 | 9 | 18 | 0.06% | | | | |
| **2017** | 30,877 | 29,333 | 9 | 27 | 0.09% | | | | |
| **2018** | 31,432 | 29,861 | 9 | 36 | 0.12% | | | | |
| **2019** | 31,563 | 29,985 | 9 | 45 | 0.15% | | | | |
| **2020** | 29,499 | 28,024 | 9 | 54 | 0.19% | | | | |
| **2021** | 30,129 | 28,622 | 9 | 63 | 0.22% | | | | |
| **2022** | 31,201 | 29,641 | 9 | 72 | 0.24% | | | | |
| **2023** | 32,299 | 30,684 | 9 | 81 | 0.26% | | | | |
| **2024** | 33,341 | 31,674 | 9 | 90 | 0.28% | | | | |

| | |
|---|---|
| **Eligibility Level** | 95.0% |

| Annual Demand and Energy Savings | Per Installation | | Program Total | |
|---|---|---|---|---|
| | @meter | @generator | @meter | @generator |
| **Summer kW Reduction** | 0.17 | 0.18 | 1.01 | 1.05 |
| **Winter kW Reduction** | -0.05 | -0.05 | -0.30 | -0.31 |
| **kWh Reduction** | 799.70 | 830.89 | 4,798 | 4,985 |

| Costs | Per Participant | Program Total |
|---|---|---|
| **Utility Nonrecurring Cost** | $22 | $135 |
| **Utility Recurring Cost** | $0 | $0 |
| **Utility Nonrecurring Rebate** | $1,909 | $11,456 |
| **Utility Recurring Rebate** | $0 | $0 |

**Annual Benefits = $B_{npv} \times d/[1-(1+d)^{-n}]$ = ($3,853)**

**where:**

**$B_{npv}$ = cumulative present value of the net benefits over the life of the program for measures installed during the reporting period**

**d = 5.5% = discount rate (utility's after tax cost of capital)**

**n = 10 = life of the program**

*The Annual Benefits calculation is based on the Total Resource Cost (TRC) test results presented in OUC's 2015 DSM Plan [approved by Consummating Order issued September 8, 2015 (Order No. PSC-15-0359-CO-EG)] and utilizes the 5.5% discount rate and 10-year program life, consistent with the TRC calculations presented in OUC's 2015 DSM Plan.*

# Table 3-21
## Commercial Ceiling Insulation Rebate

| | |
|---|---|
| **Program Name:** | Commercial Ceiling Insulation Rebate |
| **Program Start Date:** | 2015 |
| **Measure:** | Commercial Ceiling Insulation Rebate |
| **Reporting Period:** | 2015 |

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| Calendar Year | Total Number of Customers | Total Number of Eligible Customers | Projected Annual Average Number of Program Participants | Projected Cumulative Number of Program Participants | Projected Cumulative Penetration Level % (E/C*100) | Actual Annual Number of Program Participants | Actual Cumulative Number of Program Participants | Actual Cumulative Penetration Level % (H/C*100) | Actual Participation Over (Under) Projected Participants (H-E) |
| 2015 | 28,869 | 13,737 | 7 | 7 | 0.05% | 13 | 13 | 0.09% | 6 |
| 2016 | 29,558 | 13,724 | 7 | 14 | 0.10% | | | | |
| 2017 | 30,877 | 13,717 | 7 | 21 | 0.15% | | | | |
| 2018 | 31,432 | 13,710 | 7 | 28 | 0.20% | | | | |
| 2019 | 31,563 | 13,703 | 7 | 35 | 0.26% | | | | |
| 2020 | 29,499 | 13,696 | 7 | 42 | 0.31% | | | | |
| 2021 | 30,129 | 13,689 | 7 | 49 | 0.36% | | | | |
| 2022 | 31,201 | 13,682 | 7 | 56 | 0.41% | | | | |
| 2023 | 32,299 | 13,675 | 7 | 63 | 0.46% | | | | |
| 2024 | 33,341 | 13,668 | 7 | 70 | 0.51% | | | | |

| | | |
|---|---|---|
| **Eligibility Level** | 50.0% | Initial eligibility in 2009 |

| Annual Demand and Energy Savings | Per Installation | | Program Total | |
|---|---|---|---|---|
| | @meter | @generator | @meter | @generator |
| Summer kW Reduction | 1.72 | 1.79 | 22 | 23 |
| Winter kW Reduction | 3.17 | 3.29 | 41 | 43 |
| kWh Reduction | 2,196.40 | 2,282.06 | 28,553 | 29,667 |

| Costs | Per Participant | Program Total |
|---|---|---|
| Utility Nonrecurring Cost | $62 | $802 |
| Utility Recurring Cost | $0 | $0 |
| Utility Nonrecurring Rebate | $1,975 | $25,675 |
| Utility Recurring Rebate | $0 | $0 |

**Annual Benefits = $B_{npv} \times d/[1-(1+d)^{-n}]$ = ($3,877)**

**where:**

**$B_{npv}$ = cumulative present value of the net benefits over the life of the program for measures installed during the reporting period**

**d = 5.5% = discount rate (utility's after tax cost of capital)**

**n = 10 = life of the program**

*The Annual Benefits calculation is based on the Total Resource Cost (TRC) test results presented in OUC's 2015 DSM Plan [approved by Consummating Order issued September 8, 2015 (Order No. PSC-15-0359-CO-EG)] and utilizes the 5.5% discount rate and 10-year program life, consistent with the TRC calculations presented in OUC's 2015 DSM Plan.*

## Table 3-22
## Commercial Cool/Reflective Roof Rebate

| | |
|---|---|
| **Program Name:** | Commercial Cool / Reflective Roof Rebate |
| **Program Start Date:** | 2015 |
| **Measure:** | Commercial Cool / Reflective Roof Rebate |
| **Reporting Period:** | 2015 |

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| Calendar Year | Total Number of Customers | Total Number of Eligible Customers | Projected Annual Average Number of Program Participants | Projected Cumulative Number of Program Participants | Projected Cumulative Penetration Level % (E/C*100) | Actual Annual Number of Program Participants | Actual Cumulative Number of Program Participants | Actual Cumulative Penetration Level % (H/C*100) | Actual Participation Over (Under) Projected Participants (H-E) |
| 2015 | 28,869 | 1,925 | 12 | 12 | 0.62% | 12 | 12 | 0.62% | 0 |
| 2016 | 29,558 | 1,971 | 12 | 24 | 1.22% | | | | |
| 2017 | 30,877 | 2,058 | 12 | 36 | 1.75% | | | | |
| 2018 | 31,432 | 2,095 | 12 | 48 | 2.29% | | | | |
| 2019 | 31,563 | 2,104 | 12 | 60 | 2.85% | | | | |
| 2020 | 29,499 | 1,967 | 12 | 72 | 3.66% | | | | |
| 2021 | 30,129 | 2,009 | 12 | 84 | 4.18% | | | | |
| 2022 | 31,201 | 2,080 | 12 | 96 | 4.62% | | | | |
| 2023 | 32,299 | 2,153 | 12 | 108 | 5.02% | | | | |
| 2024 | 33,341 | 2,223 | 12 | 120 | 5.40% | | | | |

| | |
|---|---|
| **Eligibility Level** | 6.7% |

| Annual Demand and Energy Savings | Per Installation | | Program Total | |
|---|---|---|---|---|
| | @meter | @generator | @meter | @generator |
| Summer kW Reduction | 86.20 | 89.57 | 1,034.45 | 1,074.80 |
| Winter kW Reduction | 0.00 | 0.00 | 0.00 | 0.00 |
| kWh Reduction | 202,541.37 | 210,440.48 | 2,430,496 | 2,525,286 |

| Costs | Per Participant | Program Total |
|---|---|---|
| Utility Nonrecurring Cost | $5,686 | $68,238 |
| Utility Recurring Cost | $0 | $0 |
| Utility Nonrecurring Rebate | $7,962 | $95,547 |
| Utility Recurring Rebate | $0 | $0 |

**Annual Benefits = $B_{npv} \times d/[1-(1+d)^{-n}]$ = ($881,401)**

**where:**

**$B_{npv}$ = cumulative present value of the net benefits over the life of the program for measures installed during the reporting period**

**d = 5.5% = discount rate (utility's after tax cost of capital)**

**n = 10 = life of the program**

*The Annual Benefits calculation is based on the Total Resource Cost (TRC) test results presented in OUC's 2015 DSM Plan [approved by Consummating Order issued September 8, 2015 (Order No. PSC-15-0359-CO-EG)] and utilizes the 5.5% discount rate and 10-year program life, consistent with the TRC calculations presented in OUC's 2015 DSM Plan.*