



Case No.: 18 - 0659 - EL-EEC Mercantile

Customer: 5th and Race, LLC

Electric Utility: Duke Energy

**Program Title or
Description:** Window Film

Rule 4901:1-39-05(F), Ohio Administrative Code (O.A.C.), permits a mercantile customer to file, either individually or jointly with an electric utility, an application to commit the customer's existing demand reduction, demand response, and energy efficiency programs for integration with the electric utility's programs. The following application form is to be used by mercantile customers, either individually or jointly with their electric utility, to apply for commitment of such programs in accordance with the Commission's pilot program established in Case No. [10-834-EL-POR](#)

Completed applications requesting the cash rebate reasonable arrangement option (Option 1) in lieu of an exemption from the electric utility's energy efficiency and demand reduction (EEDR) rider will be automatically approved on the sixty-first calendar day after filing, unless the Commission, or an attorney examiner, suspends or denies the application prior to that time. Completed applications requesting the exemption from the EEDR rider (Option 2) will also qualify for the 60-day automatic approval so long as the exemption period does not exceed 24 months. Rider exemptions for periods of more than 24 months will be reviewed by the Commission Staff and are only approved up the issuance of a Commission order.

Complete a separate application for each customer program. Projects undertaken by a customer as a single program at a single location or at various locations within the same service territory should be submitted together as a single program filing, when possible. Check all boxes that are applicable to your program. For each box checked, be sure to complete all subparts of the question, and provide all requested additional information. Submittal of incomplete applications may result in a suspension of the automatic approval process or denial of the application.

Any confidential or trade secret information may be submitted to Staff on disc or via email at ee-pdr@puc.state.oh.us.

Section 1: Mercantile Customer Information

Name: **5th and Race, LLC**

Principal address: **120 W. 5th Street**

Address of facility for which this energy efficiency program applies:

Same as above

Name and telephone number for responses to questions:

Robin Avant, (513)287-5948

Electricity use by the customer (check the box(es) that apply):

- The customer uses more than seven hundred thousand kilowatt hours per year at the above facility. (Please attach documentation.)
- The customer is part of a national account involving multiple facilities in one or more states. (Please attach documentation.)

Section 2: Application Information

A) The customer is filing this application (choose which applies):

- Individually, without electric utility participation.
- Jointly with the electric utility.**

B) The electric utility is: **Duke Energy**

C) The customer is offering to commit (check any that apply):

- Energy savings from the customer's energy efficiency program. (Complete Sections 3, 5, 6, and 7.)
- Capacity savings from the customer's demand response/demand reduction program. (Complete Sections 4, 5, 6, and 7.)
- Both the energy savings and the capacity savings from the customer's energy efficiency program. (Complete all sections of the Application.)**

Section 3: Energy Efficiency Programs

A) The customer's energy efficiency program involves (check those that apply):

- Early replacement of fully functioning equipment with new equipment. (Provide the date on which the customer replaced fully functioning equipment, and the date on which the customer would have replaced such equipment if it had not been replaced early. Please include a brief explanation for how the customer determined this future replacement date (or, if not known, please explain why this is not known)).
- Installation of new equipment to replace equipment that needed to be replaced. The customer installed new equipment on the following date(s):
Month and Year
- Installation of new equipment for new construction or facility expansion. The customer installed new equipment on the following date(s):
_____.
- Behavioral or operational improvement.

B) Energy savings achieved/to be achieved by the energy efficiency program:

- 1) If you checked the box indicating that the project involves the early replacement of fully functioning equipment replaced with new equipment, then calculate the annual savings [(kWh used by the original equipment) - (kWh used by new equipment) = (kWh per year saved)]. Please attach your calculations and record the results below:

Annual savings: _____kWh

- 2) If you checked the box indicating that the customer installed new equipment to replace equipment that needed to be replaced, then calculate the annual savings [(kWh used by less efficient new equipment) - (kWh used by the higher efficiency new equipment) = (kWh per year saved)]. Please attach your calculations and record the results below:

Annual savings: _____kWh

Please describe any less efficient new equipment that was rejected in favor of the more efficient new equipment.

- 3) If you checked the box indicating that the project involves equipment for new construction or facility expansion, then calculate the annual savings [(kWh used by less efficient new equipment) - (kWh used by higher efficiency new equipment) = (kWh per year saved)]. Please attach your calculations and record the results below:

Annual savings: **XXXXX kWh (See Attachment 1 - Appendix 2)**

Please describe the less efficient new equipment that was rejected in favor of the more efficient new equipment.

- 4) If you checked the box indicating that the project involves behavioral or operational improvements, provide a description of how the annual savings were determined.

Annual savings: **74,118,612,191 kWh (See Attachment 1 - Appendix 2)**

Section 4: Demand Reduction/Demand Response Programs

- A) The customer's program involves (check the one that applies):
- Coincident peak-demand savings from the customer's energy efficiency program.**
 - Actual peak-demand reduction. (Attach a description and documentation of the peak-demand reduction.)
 - Potential peak-demand reduction (check the one that applies):
 - The customer's peak-demand reduction program meets the requirements to be counted as a capacity resource under a tariff of a regional transmission organization (RTO) approved by the Federal Energy Regulatory Commission.
 - The customer's peak-demand reduction program meets the requirements to be counted as a capacity resource under a program that is equivalent to an RTO program, which has been approved by the Public Utilities Commission of Ohio.

- B) On what date did the customer initiate its demand reduction program?

May 2015

- C) What is the peak demand reduction achieved or capable of being achieved (show calculations through which this was determined):

247.77 KW (See Attachment 1 - Appendix 2)

Section 5: Request for Cash Rebate Reasonable Arrangement (Option 1) or Exemption from Rider (Option 2)

Under this section, check the box that applies and fill in all blanks relating to that choice.

Note: If Option 2 is selected, the application will not qualify for the 60-day automatic approval. All applications, however, will be considered on a timely basis by the Commission.

A) The customer is applying for:

Option 1: A cash rebate reasonable arrangement.

OR

Option 2: An exemption from the energy efficiency cost recovery mechanism implemented by the electric utility.

OR

Commitment payment

B) The value of the option that the customer is seeking is:

Option 1: A cash rebate reasonable arrangement, which is the lesser of (show both amounts):

A cash rebate of **\$65,099.00 (See Attachment 1 - Appendix 3).**

Option 2: An exemption from payment of the electric utility's energy efficiency/peak demand reduction rider.

An exemption from payment of the electric utility's energy efficiency/peak demand reduction rider for ____ months (not to exceed 24 months). (Attach calculations showing how this time period was determined.)

OR

A commitment payment valued at no more than \$_____. (Attach documentation and calculations showing how this payment amount was determined.)

OR

- Ongoing exemption from payment of the electric utility's energy efficiency/peak demand reduction rider for an initial period of 24 months because this program is part of the customer's ongoing efficiency program. (Attach documentation that establishes the ongoing nature of the program.) In order to continue the exemption beyond the initial 24 month period, the customer will need to provide a future application establishing additional energy savings and the continuance of the organization's energy efficiency program.)

Section 6: Cost Effectiveness

The program is cost effective because it has a benefit/cost ratio greater than 1 using the (choose which applies):

- Total Resource Cost (TRC) Test. The calculated TRC value is: _____
(Continue to Subsection 1, then skip Subsection 2)
- ✓ Utility Cost Test (UCT). The calculated UCT value is **6.63 (See Attachment 1 - Appendix 4)**

Subsection 1: TRC Test Used (please fill in all blanks).

The TRC value of the program is calculated by dividing the value of our avoided supply costs (generation capacity, energy, and any transmission or distribution) by the sum of our program overhead and installation costs and any incremental measure costs paid by either the customer or the electric utility.

The electric utility's avoided supply costs were _____.

Our program costs were _____.

The incremental measure costs were _____.

Subsection 2: UCT Used (please fill in all blanks).

We calculated the UCT value of our program by dividing the value of our avoided supply costs (capacity and energy) by the costs to our electric utility (including administrative costs and incentives paid or rider exemption costs) to obtain our commitment.

Our avoided supply costs were **\$619,762.56 (See Attachment 1 - Appendix 5).**

The utility's program costs were **\$28,351.86 (See Attachment 1 - Appendix 6).**

The utility's incentive costs/rebate costs were **\$65,099.00 (See Attachment 1 - Appendix 3).**

Section 7: Additional Information

Please attach the following supporting documentation to this application:

Narrative description of the program including, but not limited to, make, model, and year of any installed and replaced equipment.

A copy of the formal declaration or agreement that commits the program or measure to the electric utility, including:

- 1) any confidentiality requirements associated with the agreement;
- 2) a description of any consequences of noncompliance with the terms of the commitment;
- 3) a description of coordination requirements between the customer and the electric utility with regard to peak demand reduction;
- 4) permission by the customer to the electric utility and Commission staff and consultants to measure and verify energy savings and/or peak-demand reductions resulting from your program; and,
- 5) a commitment by the customer to provide an annual report on your energy savings and electric utility peak-demand reductions achieved.

Refer to Offer Letter following this application

A description of all methodologies, protocols, and practices used or proposed to be used in measuring and verifying program results. Additionally, identify and explain all deviations from any program measurement and verification guidelines that may be published by the Commission.



Ohio Mercantile Self Direct Program

Application Guide & Cover Sheet

Questions? Call 1-866-380-9580 or visit www.duke-energy.com.

Email this form along with completed Mercantile Self Direct Prescriptive or Custom applications, proof of payment, energy savings calculations and spec sheets to SelfDirect@Duke-Energy.com. You may also fax to 1-513-629-5572.

Mercantile customers, defined as using at least 700,000 kWh annually or having an account in multiple locations are eligible for the Mercantile Self Direct program. Indicate which applies:

- a single Duke Energy Ohio account with 700,000 kWh annual usage
- an account with multiple locations

Please list Duke Energy account numbers below (attach listing of multiple accounts and/or billing history for other utilities as required):

Account Number	Annual Usage	Account Number	Annual Usage
29203810-01-4			
40303810-01-5			
6920-3810-01-6			

Self Direct rebates are available for completed Custom projects that have not previously received a Duke Energy Smart Saver® Custom Rebate. Self Direct rebates are applicable to Prescriptive measures that were installed more than 90 days prior to submission to Duke Energy and have not previously received a Duke Energy Prescriptive rebate.

Self Direct Program rules allow for, though do not require, certain projects that are Prescriptive in nature under the Smart Saver program to be evaluated using the Custom process in the Self Direct program. Use the list on page two as a guide to determine which Self Direct program best fits your project(s). Apply for Self Direct projects using the appropriate application forms in conjunction with this cover sheet.

Self Direct Program rules also allow for behaviorally based and/or no cost and low cost projects to receive rebates.

Please check each box to indicate completion of the following program requirements:

<input type="checkbox"/> All sections of appropriate application(s) are completed	<input type="checkbox"/> Proof of payment.*	<input type="checkbox"/> Manufacturer's Spec sheets	<input type="checkbox"/> Energy model/calculations and detailed inputs for Custom applications
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* If a single payment record is intended to demonstrate the costs of both Prescriptive & Custom projects, please include an additional document with an estimated breakout of costs for each Prescriptive and Custom energy conservation measure.

**Behavioral energy efficiency and demand reduction projects must be both measurable and verifiable. Provide justification with your application. Rebates for such projects may be small in magnitude.

Application Type	Prescriptive Measures with Optional Custom Processing	
Heating & Cooling and Window Films, Programmable Thermostats, & Guest Room Energy Management Systems	<input type="checkbox"/> Energy Star Window/Sleeve/Room AC <input type="checkbox"/> Central Air Unit	<input type="checkbox"/> Air Source Heat Pump Water Heater
	<input type="checkbox"/> Setback/Programmable Thermostat <input type="checkbox"/> Guestroom Energy Management Control	<input type="checkbox"/> Window Film
Chillers & Thermal Storage	<input type="checkbox"/> Air Cooled Chiller	<input type="checkbox"/> Water Cooled Chiller
Motors, Pumps and Variable Frequency Drives (VFDs)	<input type="checkbox"/> VFD – Applied to Process Pump <input type="checkbox"/> VFD – Applied to HVAC Pump	<input type="checkbox"/> VFD – applied to HVAC Fan
Food Service	<input type="checkbox"/> ENERGY STAR Hot Food Holding Cabinet <input type="checkbox"/> Night Covers for Display <input type="checkbox"/> ECM Cooler, Freezer, and Display Case Motors <input type="checkbox"/> ENERGY STAR Solid or Glass Door Reach-in Freezer or Refrigerator	<input type="checkbox"/> Anti-Sweat Heater Control <input type="checkbox"/> Cooking Equipment <input type="checkbox"/> ENERGY STAR ICE MACHINE
Process Equipment	<input type="checkbox"/> Engineered Nozzle – COMPRESSED AIR <input type="checkbox"/> Air compressor equipped with VFD	<input type="checkbox"/> Pellet Dryer Duct Insulation
Chiller Tune-ups	<input type="checkbox"/> Air cooled chiller tune-up	<input type="checkbox"/> Water cooled chiller tune-up

Please indicate above any Prescriptive energy conservation measures to be evaluated through the Custom process. Only Prescriptive measures listed above are eligible for this option. To receive a Self Direct Custom rebate, a detailed analysis of pre-project and post-project energy usage and project costs must be included in the application.

Although some Self Direct Prescriptive measures are eligible for evaluation through Custom processes, such an approach may not be most effective for certain measures.

MERCANTILE SELF DIRECT Ohio Heating / Cooling Equipment Rebate Application

Questions? Call 1-866-380-9580 or visit www.duke-energy.com.

Email the complete, signed application with all required documents to SelfDirect@duke-energy.com, or fax to 513-629-5572

Is this application: **NEW** (original) or **REVISED** (changes made to original application)

Building Type – Required (check one)		
<input type="checkbox"/> Data Centers	<input type="checkbox"/> Full Service Restaurant	<input checked="" type="checkbox"/> Office
<input type="checkbox"/> Education/K-12	<input type="checkbox"/> Healthcare	<input type="checkbox"/> Public Assembly
<input type="checkbox"/> Education Other	<input type="checkbox"/> Industrial	<input type="checkbox"/> Public Order/Safety
<input type="checkbox"/> Elder Care/Nursing Home	<input type="checkbox"/> Lodging	<input type="checkbox"/> Religious Worship/Church
<input type="checkbox"/> Food Sales/Grocery	<input type="checkbox"/> Retail (Small Box)	<input type="checkbox"/> Service
<input type="checkbox"/> Fast Food Restaurant	<input type="checkbox"/> Retail (Big Box)	<input type="checkbox"/> Warehouse
<input type="checkbox"/> Other:		
How did you hear about the program? (check one)		
<input type="checkbox"/> Duke Energy Representative	<input type="checkbox"/> Web Site	<input type="checkbox"/> Radio
<input type="checkbox"/> Contractor / Vendor	<input checked="" type="checkbox"/> Other _____	

Please check each box to indicate completion of the following program requirements:

<input type="checkbox"/> All sections of application	<input type="checkbox"/> Invoice with make, model number, quantity and equipment manufacturer	<input type="checkbox"/> Tax ID number for payee <input type="checkbox"/> W-9 for payee	<input type="checkbox"/> Customer/vendor agree to Terms and Conditions
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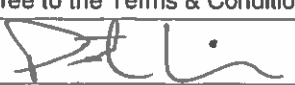
Customer Information			
Customer/Business	Fifth & Race, LLC.	Contact	Jeff Martin
Phone	513 621 440	Account Number	29203810-01-4
Street Address (Where rebate should be mailed)		1203 Walnut St., 4 th Floor	
City	Cincinnati	State	OH
		Zip Code	45202
Installation Street Address	100 W 5th St		
City	Cincinnati	State	OH
		Zip Code	45202
E-mail Address	jmartin@3cdc.org		

*Failure to provide the account number associated with the location where the installation took place will result in rejection of the application.

Vendor Information			
Vendor	KLH Engineers	Contact	John Kirschner
Phone	859-547-0122	Fax	
Street Address		1538 Alexandria Pk. Suite 11	
City	Ft. Thomas	State	KY
		Zip Code	41075
E-mail Address	jkirschner@klhengrs.com		

If Duke Energy has questions about this application, who should we contact? Customer Vendor

Payment Information		
Who should receive rebate payment?	<input checked="" type="checkbox"/> Customer	<input type="checkbox"/> Vendor (Customer must sign below)
I hereby authorize payment of rebate directly to the vendor:	Customer Signature (written signature)	
	Date	
Provide Tax ID Number for Payee	Customer Tax ID #	32-0374707
	Vendor Tax ID #	

Terms and Conditions			
I have read and hereby agree to the Terms & Conditions and Program Requirements.			
Customer Signature (written signature)		Vendor Signature (written signature)	
Date	1/17/18	Date	
Title	VP operations	Title	

Rebates are subject to change and may be discontinued at the sole discretion of Duke Energy. Equipment must be installed and operable to be eligible for rebates. As Federal Energy Policy Law changes, equipment efficiency requirements are subject to change.

Central Air Unit Rebates (Rooftop and Unitary AC and HEAT PUMPS*)

The Equipment below is (check one): New Equipment Retrofit Equipment Replace Failed Equipment

Description	Make/Model # (for split system, supply both the indoor and outdoor coil numbers)	# of Units	Tons Per Unit	Rebates per Ton**	Installed AHRI Efficiency Rating (mark one)	AHRI Reference Number (required)***	Annual Operating Hours (min. of 1500)	Equipment Cost	Date Installed and Operable (mm/yy)	Total Rebate
					<input type="checkbox"/> <input type="checkbox"/> SEER/EER**					
					<input type="checkbox"/> <input type="checkbox"/> SEER/EER**					
					<input type="checkbox"/> <input type="checkbox"/> SEER/EER**					
					<input type="checkbox"/> <input type="checkbox"/> SEER/EER**					
					<input type="checkbox"/> <input type="checkbox"/> SEER/EER**					

** Rebate capped at 50% of the equipment cost.

Rebate Table and AHRI Rated Efficiency Requirements*				
Description	Size Range	Tonnage	Minimum AHRI Efficiency Required	Rebate
Packaged Terminal Air Conditioning				
Direct Expansion Packaged Terminal Air Conditioner	<7600 Btuh		12.2 EER	\$10.50 / unit
	7600 – 15000 Btuh		10.7 EER	\$11.00 / unit
	>15000 Btuh		9.8 EER	\$20.50 / unit
Unitary and Rooftop Air Conditioning				
Direct Expansion Air Conditioner	<65k Btuh, CEE Tier 1 <65k Btuh, CEE Tier 2	<5.416 tons	14 SEER 15 SEER	\$30 / ton \$56.50 / ton
	65-135k Btuh, CEE Tier 1 65-135k Btuh, CEE Tier 2	5.416-11.25 tons	11.7 EER 12.2 EER	\$21 / ton \$36.50 / ton
	136–240k Btuh, CEE Tier 1 136–240k Btuh, CEE Tier 2	11.26-20 tons	11.7 EER 12.2 EER	\$11 / ton \$17.50 / ton
	241-760k Btuh, CEE Tier 1 241-760k Btuh, CEE Tier 2	20.1-63.333 tons	10.5 EER 10.8 EER	\$30 / ton \$43.50 / ton
	>760k Btuh, CEE Tier 1 >760k Btuh, CEE Tier 2	>63.333 tons	9.9 EER 10.4 EER	\$17 / ton \$45 / ton
Unitary and Rooftop Heat Pump – only Air-to-Air Heat Pump units qualify				
Direct Expansion Heat Pump	Heat Pump Package < 65 Btuh, 8 HSPF, Tier 1 installed on or before June 30, 2016	<5.416 tons	14 SEER	\$40 / ton
	Heat Pump Packaged < 65 Btuh, 8.5 HSPF, Tier 2 if installed on or before June 30, 2016	<5.416 tons	15 SEER	\$90 / ton
	Heat Pump Packaged <65 Btuh, 8.5 HSPF, Tier 2 if installed on or after July 1, 2016	<5.416 tons	15 SEER	\$32 / ton
	Heat Pump Split <65k Btuh, 8.5 HSPF, Tier 1 installed on or before June 30, 2016	<5.416 tons	14 SEER	\$53 / ton
	Heat Pump Split <65k Btuh, 9 HSPF, Tier 2 if installed on or before June 30, 2016	<5.416 tons	15 SEER	\$106 / ton
	Heat Pump Split <65k Btuh, 9 HSPF, Tier 2, if installed on or after July 1, 2016	<5.416 tons	15 SEER	\$53 / ton
	Heat Pump 65-135k Btuh	5.416-11.25 tons	11.3 EER	\$18.50 / ton
	Heat Pump 136-240k Btuh	11.26-20 tons	10.9 EER	\$11 / ton
	Heat Pump >240k Btuh	>20.1 tons	10.3 EER	\$31.50 / ton
				**** Rebate capped at 50% of the equipment cost.

Effective July 1, 2016, some rebates will change. Equipment must be installed on or before June 30, 2016 in order to qualify for the higher rebate.

- Duke Energy requires an AHRI reference # or documentation from the AHRI Manual to verify the required efficiency level for all central air systems. If the equipment or matched set is not in the AHRI manual, the manufacturer's technical fact sheets must be provided showing the efficiency level tested under AHRI conditions. Equipment capacity (size) and efficiency must be based on AHRI design conditions. Rebates will be paid based on AHRI rated capacity.
- For split systems, the indoor coil and condenser must be a matched set to be eligible for rebates.
- Cooling system(s) must operate >1,500 hours annually to be eligible.
- Rebates are only available for Air-to-Air HP units. Ground Source and Water Source Heat Pumps are not eligible.
- Rebates may be available under the custom program. See custom application on the Duke Energy Smart Saver® website for application and equipment requirements.
- Rebate capped at 50% of the customer's equipment cost.

Energy Star Window / Sleeve / Room AC Rebates

Description*	Make/Model #	Size Range Btu/hr	Rebate per Unit*	Quantity	EER	Annual Operating Hours (min. of 1500)	Equipment Cost	Date Installed and Operable (mm/yy)	Total Rebate

** Rebate capped at 50% of the equipment cost.

Energy Star Window / Sleeve / Room Rebate Table

Size Range	EER	Rebate	EER	Rebate	EER	Rebate
<8,000 BTU/hr	10.7	\$12.50	11.2	\$17.50	11.6	\$20
8,000 – 13,999 BTU/hr	10.8	\$12.50	11.3	\$17.50	11.8	\$20
14,000 BTU – 19,999 BTU/hr	10.7	\$25	11.2	\$37.50	11.6	\$40
>=20,000 Btu/hr	9.4	\$25	9.8	\$37.50	10.2	\$40

- Cooling system(s) must operate >1,500 hours annually to be eligible.
- An equipment data sheet is required stating that the unit is Energy Star rated and providing the EER.
- All equipment must be **new** to be eligible for rebates. Used equipment is **not** eligible for rebates.
- Rebate capped at 50% of the customer's equipment cost.

Window Film Rebates

Item Number (Model #)	SHGC*	Square Feet Installed	Rebate per Square Foot	Direction Window Faces	Number of Windows	Date Installed (mm/yy)	Project Cost	Total Rebate**
VE1-2M	0..38	130198.83	\$.50/sq.ft	<input checked="" type="checkbox"/> East <input checked="" type="checkbox"/> West <input checked="" type="checkbox"/> South	See Attached Spreadsheet	05/15	\$636,460.00	\$65,099.42
			\$.50/sq.ft	<input type="checkbox"/> East <input type="checkbox"/> West <input type="checkbox"/> South				
			\$.50/sq.ft	<input type="checkbox"/> East <input type="checkbox"/> West <input type="checkbox"/> South				

** Rebate is capped at a maximum of 50% of the project cost (equipment and external labor).

Window Film Rebate

Description	Minimum Efficiency	Rebate*
Window Film	SHGC or 0.40 or less or a shading coefficient of 0.45 or less	\$.50/square ft.

*Rebate is capped at of 50% of the project cost (material and external labor).

- Window Film must be installed according to the manufacturer's instructions on south, east or west facing windows and cover the entire window aperture.
- The combined effect of the window and film must result in a solar heat gain coefficient (SHGC) of 0.40 or less, or a shading coefficient of 0.45 or less.
- All equipment must be **new** to be eligible for rebates. Used equipment is **not** eligible for rebates.
- Rebate capped at 50% of the customer's equipment cost.

Setback/Programmable Thermostat Rebates (Retrofit only)

Make/Model #	Quantity	Rebate per Unit*	Equipment Cost	Date Installed and Operable (mm/yy)	Total Rebate

* Rebate capped at 50% of the equipment cost.

Setback/Programmable Thermostat Rebates (Retrofit only)

Description	Rebate
Setback/Programmable Thermostat	\$25/thermostat*

- Programmable Thermostats must replace existing standard thermostats – Rebates for new construction are not applicable.
- Rebates for Programmable Thermostats cannot exceed 50% of the cost of the thermostat.
- Thermostat(s) shall be installed according to manufacturer's specifications and comply with manufacturer's warranty requirements. Thermostat(s) shall have a program memory retention capability or battery back-up (minimum 2 days), with warning indicator for battery replacement. Thermostat(s) shall be capable of automatic variation of the start of daily-warm-up time depending on indoor and outdoor temperature variations.
- Thermostats must be programmed to set back/up space temperatures by 5 degrees or more during unoccupied periods (minimum of 6 hours per day) replacing a standard non-programmable thermostat.
- All equipment must be **new** to be eligible for rebates. Used equipment is **not** eligible for rebates.
- Rebate capped at 50% of the customer's equipment cost.

Guestroom Energy Management Controls (Retrofit only)

Make/Model #	Please indicate whether room is heated by Natural Gas (G) or Electric (E)? (please circle)	Quantity	Rebate per Room*	Equipment Cost	Date Installed and Operable (mm/yy)	Total Rebate
	E or G					
	E or G					
	E or G					

* Rebate capped at 50% of the equipment cost.

Guestroom Energy Management Controls (Retrofit only)

Description	Rebate per Room
Guestroom Energy Management Controls for rooms heated with Electric	\$40
Guestroom Energy Management Controls for rooms heated with Gas	\$15

- Rebates are available for sensors that control HVAC units for individual hotel rooms.
- Sensors controlled by a front desk system are not eligible.
- Sensors must be controlled by automatic occupancy detectors.
- During unoccupied periods, the default setting for controlled units should differ by at least 8 degrees from the operating set point.
- The rebate is per guest room controlled, not per sensor; for multi-room suites the rebate is available per room controlled, if a sensor is installed in each room.
- Replacement or upgrades of existing occupancy-based controls are not eligible for a Merchantile Self Direct rebate.
- All equipment must be **new** to be eligible for rebates. Used equipment is **not** eligible for rebates.
- Rebate capped at 50% of the customer's equipment cost.

Cool Roof									
The Equipment below is (check one): <input type="checkbox"/> New Roof <input type="checkbox"/> Replacement Roof									
Building Type									
<input type="checkbox"/> College		<input type="checkbox"/> Hotel		<input type="checkbox"/> Large Office		<input type="checkbox"/> Motel		<input type="checkbox"/> Retail	
<input type="checkbox"/> Medium Office		<input type="checkbox"/> Strip Mall		<input type="checkbox"/> Health		<input type="checkbox"/> School		<input type="checkbox"/> Other	
Make/Model #	Quantity (Square footage, sqft)	CRRC ID	Slope of roof	Initial Solar Reflectance	Aged Solar Reflectance	Rebate per sqft *	Project Cost	Date Installed and Operable (mm/yy)	Total Rebate
						\$0.05/SF			
						\$0.05/SF			
						\$0.05/SF			

- Rebates cannot exceed 50% of the customer's project cost.
- Cool roof must have an Initial Solar Reflectance greater than or equal to 0.7.
- Cool roof must be low-sloped, meaning a surface with slope of 2:12 inches or less (as defined in ASTM standard E 1918-97).
- Cool roof cannot be obstructed by PV panels.
- Installation must be over a mechanically cooled space.
- Space must be cooled by electric air conditioning.
- Installation must be completed by a licensed roofing contractor.
- Cool roof must be listed in the Cool Roof Rating Council's (CRRC) Rated Products Directory.
- Where energy code requires installation no rebate is available.
- All equipment must be **new** to be eligible for rebates. Used equipment is *not* eligible for rebates

Direct Expansion Roof Top Unitary Tune Up AC Fixed Orifice and Thermal Expansion Valves												
Measure Name	Rooftop Unit Make and Model Number and Serial Number	Rated Refrigerant Capacity (lbs)	Weight of Refrigerant Added (lbs)	Tons	Sub-cooling Temp	Super Heat Temp	Existing Temp of cooling / heating coil	New Temp of cooling / heating coil	Rebate per ton	Equipment Cost	Date Installed and Operable (mm/yy)	Total Rebate
Fixed Orifice +5% charge adjustment									\$16/ton			
Fixed Orifice +10% charge adjustment									\$19/ton			
Fixed Orifice +15% charge adjustment									\$20/ton			
Fixed Orifice +20% charge adjustment									\$20/ton			
Fixed Orifice +25% charge adjustment									\$19/ton			
Fixed Orifice +30% charge adjustment									\$21/ton			
Fixed Orifice -20% charge adjustment									\$13/ton			
Thermal Expansion Valve +5% charge adjustment									\$11/ton			
Thermal Expansion Valve +10% charge adjustment									\$19/ton			
Thermal Expansion Valve +15% charge adjustment									\$22/ton			
Thermal Expansion Valve +20% charge adjustment									\$25.50/ton			
Thermal Expansion Valve +25% charge adjustment									\$28.50/ton			
Thermal Expansion Valve +30% charge adjustment									\$31.50/ton			

Thermal Expansion Valve -20% charge adjustment									\$13/ton			
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Requirements for: Direct Expansion Roof Top Unitary Tune Up AC Fixed Orifice and Thermal Expansion Valves

- After the tune-up, the refrigerant charge must be within +/-3 degrees of target sub-cooling for units with thermal expansion valves (TXV) and +/-5 degrees of target super heat for units with fixed orifices or a capillary.
- Units with pre-existing maintenance contracts are not eligible.
- Units are eligible for this rebate once.
- Rebates cannot exceed 50% of the customer's cost of the equipment.

Check the boxes of all items included during tune up:	
<input type="checkbox"/>	Inspect and clean condenser, evaporator coils, and blower.
<input type="checkbox"/>	Inspect refrigerant level and adjust refrigerant to manufacturer specifications.
<input type="checkbox"/>	Measure the static pressure across the cooling coil to verify adequate system airflow and adjust to manufacturer specifications.
<input type="checkbox"/>	Inspect, clean, or change air filters.
<input type="checkbox"/>	Calibrate thermostat on/off set points based on building occupancy.
<input type="checkbox"/>	Tighten all electrical connections, and measure voltage and current on motors.
<input type="checkbox"/>	Lubricate all moving parts, including motor and fan bearings.
<input type="checkbox"/>	Inspect and clean the condensate drain.
<input type="checkbox"/>	Inspect controls of the system to ensure proper and safe operation. Check the starting cycle of the equipment to assure the system starts, operates, and shuts off properly.

**Direct Expansion Roof Top Unitary Tune Up Heat Pump
Fixed Orifice and Thermal Expansion Valves**

Measure Name	Rooftop Unit Make and Model Number and Serial Number	Rated Refrigerant Capacity (lbs)	Weight of Refrigerant Added (lbs)	Tons	Sub-cooling Temp	Super Heat Temp	Existing Temp of cooling / heating coil	New Temp of cooling / heating coil	Rebate per ton	Equipment Cost	Date Installed and Operable (mm/yy)	Total Rebate
Fixed Orifice +5% charge adjustment									\$13/ton			
Fixed Orifice +10% charge adjustment									\$13/ton			
Fixed Orifice +15% charge adjustment									\$15/ton			
Fixed Orifice +20% charge adjustment									\$17/ton			
Fixed Orifice +25% charge adjustment									\$19/ton			
Fixed Orifice +30% charge adjustment									\$21/ton			
Fixed Orifice -20% charge adjustment									\$12.50 / ton			
Thermal Expansion Valve +5% charge adjustment									\$16/ton			
Thermal Expansion Valve +10% charge adjustment									\$17/ton			
Thermal Expansion Valve +15% charge adjustment									\$19.50 / ton			
Thermal Expansion Valve +20% charge adjustment									\$21.50/ ton			
Thermal Expansion Valve +25% charge adjustment									\$21.50/ ton			
Thermal Expansion Valve +30% charge adjustment									\$21/ton			
Thermal Expansion Valve -20% charge adjustment									\$10.50/ ton			

• See following page for additional requirements.

Requirements for: Direct Expansion Roof Top Unitary Tune Up Heat Pump Fixed Orifice and Thermal Expansion Valves

- After the tune-up, the refrigerant charge must be within +/-3 degrees of target sub-cooling for units with thermal expansion valves (TXV) and +/-5 degrees of target super heat for units with fixed orifices or a capillary.
- Units with pre-existing maintenance contracts are not eligible.
- Units are eligible for this Rebate once.
- Rebates cannot exceed 50% of the customer's cost of the equipment.

Check the boxes of all items included during tune up:	
<input type="checkbox"/>	Inspect and clean condenser, evaporator coils, and blower.
<input type="checkbox"/>	Inspect refrigerant level and adjust refrigerant to manufacturer specifications.
<input type="checkbox"/>	Measure the static pressure across the cooling coil to verify adequate system airflow and adjust to manufacturer specifications.
<input type="checkbox"/>	Inspect, clean, or change air filters.
<input type="checkbox"/>	Calibrate thermostat on/off set points based on building occupancy.
<input type="checkbox"/>	Tighten all electrical connections, and measure voltage and current on motors.
<input type="checkbox"/>	Lubricate all moving parts, including motor and fan bearings.
<input type="checkbox"/>	Inspect and clean the condensate drain.
<input type="checkbox"/>	Inspect controls of the system to ensure proper and safe operation. Check the starting cycle of the equipment to assure the system starts, operates, and shuts off properly.

Advanced Rooftop Controller (ARC) with VFD, Air Side Economizer and Demand Controlled Ventilation
 Retrofit Replace Failed Equipment on Burnout

Building Type Restaurant Hotel Motel Health Retail
 Strip Mall Medium Office Small Office School Other

Annual Operating Hours: _____

	Qty (# of T-stats)	Model #	RTU Rated Capacity (tons)	Rebate per ton	Area Served (square footage)	The number of Hours Reset/day	Cooling Set Point when building is unoccupied (°F)	Heating Set Point when building is unoccupied (°F)	Project Cost	Date Installed and Operable (mm/yy)	Total Rebate
ARC on AC < 10 Ton Gas Heat				\$126/ton							
ARC on AC 10 to 15 Ton Gas Heat				\$105/ton							
ARC >15 Ton Gas Heat				\$57.50/ton							
ARC < 10 Ton Heat Pump				\$144/ton							
ARC Heat Pump 10 to 15 Ton				\$102.50/ton							
ARC Heat Pump > 15 Ton				\$57.50/ton							

Rooftop Unit Information	RTU #1	RTU #2	RTU #3	RTU #4
RTU manufacturer and model number				
RTU Type (AC with electric resistance heat, AC with gas heat, Heat pump)				
RTU Year of Manufacture (from nameplate)				
RTU Cooling Capacity (Tons)				
RTU Operation (hours per week)				
Supply Fan nameplate horse power (hp)				
Measured Supply Fan power (kW)				
As-found minimum OSA (%)				
Features (either check appropriate boxes or submit attachment with features)				
Multi-speed supply fan				
Multi-speed compressor				
Supply fan cycling				
Demand Controlled ventilation				
Integrated Economizer				
Web-enabled control				
Web-enabled monitoring				
Optimum Start				
Pre-cooling with outside air				
Fault detection and diagnostics				
Energy use reporting				

• See following page for additional requirements.

- The rooftop unit (RTU) must be equipped with an economizer which resets the minimum position to eliminate outside air for ventilation during unoccupied periods.
- Multi zone systems are ineligible for a Smart Saver Mercantile Self Direct rebate but may qualify for an rebate through the Smart Saver Mercantile Custom program.
- A tune-up must be performed in conjunction with retrofitting of an ARC on an existing system.
- If installing an ARC with a new HVAC unit (Replace on Burnout), a tune-up is not required.
- Rebates are not available for ARC for new buildings.
- This measure does not cover the repair of an existing economizer or the conversion of a dry bulb-based economizer to an enthalpy-based economizer.
- Rebates cannot exceed 50% of the customer's project cost.
- All equipment must be new to be eligible for rebates. Used equipment is *not* eligible for rebates.
- Specification sheets are required for all equipment.
- Advanced Rooftop Controller (ARC) must include: variable frequency drive, air side economizer and demand controlled ventilation

Demand Control Ventilation (Retrofit only)								
Building Type <input type="checkbox"/> Restaurant <input type="checkbox"/> Hotel <input type="checkbox"/> Motel <input type="checkbox"/> Health <input type="checkbox"/> Retail <input type="checkbox"/> Strip Mall <input type="checkbox"/> Medium Office <input type="checkbox"/> Small Office <input type="checkbox"/> School <input type="checkbox"/> Other								
Make/Model #	Quantity (Square footage)	Number of sensors	Number of zones for which DCV is installed	Cooling capacity of existing packaged single zone equipment on which DCV is installed (tons or BTUH)	Rebate per sq ft *	Project Cost	Date Installed and Operable (mm/yy)	Total Rebate = (sq. ft x \$.05)
					\$.05/SF			
					\$.05/SF			
					\$.05/SF			

- All equipment must be **new** to be eligible for rebates. Used equipment is **not** eligible for rebates.
- Rebates cannot exceed 50% of the customer's cost of the project.
- Must provide cooling capacity of existing packaged single zone equipment on which DCV is installed.
- Only retrofit installations are eligible for rebates. DCV installations in conjunction with new HVAC equipment do not qualify.
- Controlled space must meet a minimum of ASHRAE 62.1-2010 standards.
- The space must have a maximum of 2,000 sq ft per CO2 sensor.
- Carbon dioxide sensors must be installed in conjunction with existing, fully functioning economizers with electronic control.
- Must provide invoice documenting purchase of and installation carbon dioxide sensors and controllers. Where code requires DCV, an rebate is not available.
- Conditioned space must be kept between 72°F ± 6°F during operating hours.
- DCV must be installed in spaces with variable, unpredictable occupancy (e.g., conference rooms, auditoriums, restaurants, retail, etc.).
- Customer must provide a floor plan of the space to be controlled with DCV.
- Must provide invoice and date of installation.
- Only air-conditioning units serving a single control zone are eligible for rebates.

Ductless Mini-Split AC System The Equipment below is (check one): New Equipment Replace Failed Equipment

Building Type College Lodging
 Convenience School Other

Make/Model #	SEER/EER	Number of units	Rated Cooling Capacity (tons)	Type of system being replaced	AHRI Reference Number (required)***	Rebate per ton *	Project Cost	Date Installed and Operable (mm/yy)	Total Rebate
	15 SEER					\$52/ton			
	16 SEER					\$62.50/ton			
	18 SEER					\$82.50/ton			
	20 SEER					\$103/ton			

- Duke Energy requires an AHRI reference # or documentation from the AHRI Manual to verify the required efficiency level for all central air systems. If the equipment or matched set is not in the AHRI manual, the manufacturer's technical fact sheets must be provided showing the efficiency level tested under AHRI conditions. Equipment capacity (size) and efficiency must be based on AHRI design conditions.
- All equipment must be new to be eligible for rebates. Used equipment is *not* eligible for rebates.
- Rebates cannot exceed 50% of the customer's cost of the equipment.
- The efficient equipment is an inverter-equipped, ductless mini-split AC system with capacity less than or equal to 65,000 Btu/h.
- Only systems with a single indoor and outdoor unit are eligible.
- System capacity and efficiency must be provided at AHRI design conditions.
- Must be replacing an existing eligible baseline system at the end of useful life or adding a new cooling system to an existing building. (Baseline system PTAC and room ACs)

Ductless Mini-Split Heat Pump									
The Equipment below is (check one): <input type="checkbox"/> New Equipment <input type="checkbox"/> Replace Failed Equipment									
Building Type <input type="checkbox"/> College <input type="checkbox"/> Lodging <input type="checkbox"/> Convenience <input type="checkbox"/> School <input type="checkbox"/> Other									
Description	Make and Model #	Number of units	Rated Heating Capacity (ton)	Type of system being replaced	AHRI Reference Number	Rebate per ton *	Project Cost	Date Installed and Operable (mm/yy)	Total Rebate
For equipment installed on or before June 30, 2016									
Ductless Mini Split Heat Pump 15 SEER, 8.5 HPSF						\$54.50/ton			
Ductless Mini Split Heat Pump 16 SEER, 8.5 HPSF						\$65/ton			
Ductless Mini Split Heat Pump 18 SEER, 9.6 HPSF						\$82.50/ton			
Ductless Mini Split Heat Pump 20 SEER, 9.6 HPSF						\$106.50/ton			
For equipment installed on or after July 1, 2016									
Ductless Mini Split Heat Pump 15 SEER, 8.5 HPSF						\$4.50/ton			
Ductless Mini Split Heat Pump 16 SEER, 8.5 HPSF						\$16.50/ton			
Ductless Mini Split Heat Pump 18 SEER, 9.6 HPSF						\$29.50/ton			
Ductless Mini Split Heat Pump 20 SEER, 9.6 HPSF						\$55/ton			

- Duke Energy requires an AHRI reference # or documentation from the AHRI Manual to verify the required efficiency level for all central air systems. If the equipment or matched set is not in the AHRI manual, the manufacturer's technical fact sheets must be provided showing the efficiency level tested under AHRI conditions. Equipment capacity (size) and efficiency must be based on AHRI design conditions.
- All equipment must be **new** to be eligible for rebates. Used equipment is **not** eligible for rebates.
- Rebates cannot exceed 50% of the customer's cost of the equipment.
- The efficient equipment is must be an inverter-equipped, ductless mini-split HP system with capacity less than or equal to 65,000 Btu/h.
- Only systems with a single indoor r unit are eligible.
- System capacity and efficiency must be provided at AHRI design conditions.

Water Heater Pipe Insulation – electric resistance domestic hot water heaters (Retrofit only)

Type (check one):	Diameter of pipe (in.)	Insulation Thickness (in.)	Length in Ft	Rebate per foot of pipe length	Equipment Cost	Date Installed and Operable (mm/yy)	Total Rebate
<input type="checkbox"/> Fiber <input type="checkbox"/> Polyethylene				\$0.70/ft			
<input type="checkbox"/> Fiber <input type="checkbox"/> Polyethylene				\$0.70/ft			
<input type="checkbox"/> Fiber <input type="checkbox"/> Polyethylene				\$0.70/ft			

- All equipment must be new to be eligible for rebates. Used equipment is *not* eligible for rebates.
- Rebates cannot exceed 50% of the customer's cost of the project.
- This rebate is not available for new construction nor new water heating equipment.
- Only customers with electric resistance domestic hot water heaters are eligible for this rebate.

Faucet Aerator (Retrofit only)

 Building Type Commercial Public Use Commercial Private Use School

Measure Name	Quantity	Rebate per unit*	Equipment Cost	Date Installed and Operable (mm/yy)	Total Rebate
Faucet Aerator 0.5 GPM		\$2.25			
Faucet Aerator 0.5 GPM		\$2.25			
Faucet Aerator 0.5 GPM		\$2.25			
Faucet Aerator 1.0 GPM		\$2.25			
Faucet Aerator 1.0 GPM		\$2.25			
Faucet Aerator 1.0 GPM		\$2.25			

- All equipment must be new to be eligible for rebates. Used equipment is *not* eligible for rebates.
- Rebates cannot exceed 50% of the customer's cost of the equipment.
- Rebates for faucet aerators are available only for Duke Energy accounts with electric water heat.
- Must be installed on working fixtures that have a flow rate of 2.2 GPM

Low Flow Showerhead (Retrofit only)

 Building Type College Commercial (fitness center) Health Facility School Other

Measure Name	New Gallons per Minute (GPM) (Maximum of 1.5 GPM)	Quantity	Rebate per unit*	Equipment Cost	Date Installed and Operable (mm/yy)	Total Rebate
Low Flow Showerhead			\$6.25			
Low Flow Showerhead			\$6.25			
Low Flow Showerhead			\$6.25			

- All equipment must be new to be eligible for rebates. Used equipment is *not* eligible for rebates.
- Rebates cannot exceed 50% of the customer's cost of the equipment.
- Rebates for faucet aerators are available only for Duke Energy accounts with electric water heat.
- Must be installed on working fixtures that have a flow rate of 2.5 GPM
- New showerhead must have a maximum flow rate of 1.5 GPM

Electronically Commutated Motor (ECM) HVAC Fan Motors (retrofit only)						
Measure Name	Quantity	Rebate per unit*	Equipment Cost	Annual Operating Hours	Date Installed and Operable (mm/yy)	Total Rebate
ECM for HVAC Fan: 1/4 HP		\$32.50				
ECM for HVAC Fan: 1/3 HP		\$29.50				
ECM for HVAC Fan: 1/2 HP		\$25.50				
ECM for HVAC Fan: 3/4 HP		\$10.50				
ECM for HVAC Fan: 1 HP		\$43.00				

- ECM HVAC Fan Motor applications are for retrofit only.
- All equipment must be **new** to be eligible for rebates. Used equipment is **not** eligible for rebates.
- Rebates are only available for new ECMs installed on existing HVAC fans.
- ECMs applied to new replacement motors that power existing HVAC fans are eligible for prescriptive rebates.
- Qualifying motors must not exceed 1 horse power.
- ECMs over 1 HP and ECMs installed on new HVAC fans are not eligible for Midstream rebates, but may qualify through the Midstream Custom program. Please refer to the Custom webpage for guidance.
- ECM Fans qualifying equipment must have 2000 annual run hours or more.
- Replacement of existing ECMs does not qualify for rebates.
- ECMs installed on redundant fans do not qualify.
- ECM speed must be automatically controlled by differential pressure, flow, temperature, or other variable signal.
- Existing throttling devices including inlet vanes, bypass dampers, and throttling valves must be removed or permanently disabled.
- Specification sheets are required for all equipment.
- Rebates are capped at 50% of the customer's project cost (equipment and external labor).

Program Requirements

Rebate Eligibility

- Rebates are only available to customers on a Duke Energy Ohio non-residential rate.
- Duke Energy Customers who purchase electric generation from an alternative supplier are eligible to participate.
- Rebates will not be paid until eligible equipment has been installed, is available to operate, and verification has been completed by Duke Energy staff as noted in the Term & Conditions stated below.
- Duke Energy reserves the right to revise rebate levels and/or qualifying efficiency levels at any time.
- Customer may assign the rebate to the vendor who installed/supplied the equipment. The customer's signature is required in the Payment Information section on page 1 of this form to assign the rebate to the vendor. Customer agrees that such an action constitutes an irrevocable assignment of the rebate. This assigned rebate must reproduce the purchase price paid for the equipment by an equivalent amount.
- Leased equipment is eligible for rebates providing the equipment meets the program requirements and the customer provides the required documentation noted on the Rebate Application Process page of this application.
- Customer may assign the rebate to the vendor who installed/supplied the equipment. The customer's signature is required in the appropriate places on this form to assign the rebate to the vendor. Customer agrees that such an action constitutes an irrevocable assignment of the rebate. This assigned rebate must reduce the purchase price paid for the equipment by an equivalent amount.
- Any equipment which, either separately or as part of a project, has or will receive a rebate from any other Duke Energy program is ineligible.
- In no case will Duke Energy pay a rebate above the actual cost of the new equipment.
- Rebate recipient assumes all responsibilities for any tax consequences resulting from Duke Energy rebate payment.
- To qualify for Duke Energy rebates, applicants who provide their social security number as their federal tax identification number for tax purposes must sign and return the "Customer consent to release personal information" form ("Consent Form") along with the application. Rebate applications are processed by a 3rd party vendor. The 3rd party vendor is responsible for mailing the 1099 form at the end of the calendar year for tax filing. Duke Energy and the 3rd party vendor have signed a confidentiality agreement to protect your personal information. If your social security number is your federal tax ID number and you elect not to sign the Consent Form, please do not send Duke Energy the application, as you will not be qualified to participate in the rebate program.

Terms and Conditions

I certify that this premise is served by Duke Energy (or an affiliate of Duke Energy), that the information provided herein is accurate and complete, and that I have purchased and installed the high efficiency equipment (indicated herein) for the business facility listed herein and not for resale. Attached is an itemized invoice for the indicated installed equipment. I understand that the proposed rebate payment from Duke Energy is subject to change based on verification and Duke Energy approval. I agree to Duke Energy verification of both the sales transaction and equipment installation which may include a site inspection from a Duke Energy representative or Duke Energy agent. I understand that I am not allowed to receive more than one rebate from Duke Energy on any piece of equipment. I also understand that my participation in the program may be taxable and that my company is solely responsible for paying all such taxes. I hereby agree to indemnify, hold harmless and release Duke Energy and its affiliates from any actions or claims in regards to the installation, operation and disposal of equipment (and related materials) covered herein including liability from an incidental or consequential damages. Duke Energy does not endorse any particular manufacturer, product or system design within these programs; does not expressly or implicitly warrant the performance of installed equipment (Contact your contractor for details regarding equipment warranties) and is not liable for any damage caused by the installation of the equipment nor for any damage caused by the malfunction of the installed equipment.

Rebate Application Instructions

IMPORTANT NOTICE

Delays in processing rebate payments will occur if required documentation is not included with completed application(s).

1. Contact Duke Energy toll free at 866-380-9580 to confirm customer eligibility. Applications are available for download at www.duke-energy.com.
2. Review program and equipment requirements on the rebate application.
3. Purchase and install eligible energy-efficient equipment.
4. **The following items must be included to verify projects. If they are not included, it will delay payment of rebate.**
 - A. Itemized invoice for all equipment installed to include:
 - a. Equipment cost
 - b. Quantity per equipment type installed
 - c. Model # for each equipment type
 - d. Manufacturer's data sheet for each equipment model #.
 - B. **Make sure the account number provided on the cover page (customer information section) is associated with the location where the equipment was installed. If the account # does not match the address where the equipment was installed, the application will be rejected as ineligible.**
 - C. Provide required tax ID# and W-9 for payee.
 - D. Customer must sign and date the application after reviewing the Terms and Conditions. If customer wishes to **assign payment of the rebate directly to the vendor**, the customer should circle the appropriate payee in the Payment Information section of the application and sign their name to authorize payment.
5. Duke Energy may require site verification of projects that have been self-installed, prior to payment of rebate.
6. Email the complete, signed application with all required documents to SelfDirect@duke-energy.com or fax to 513-629-5572.
7. A percentage of equipment installations will be site verified for quality assurance purposes. Once selected, a Duke Energy representative will contact the customer to arrange for the inspection. All rebate payments related to the project will be withheld until site verification is complete. There is no charge to the customer for these inspections.

Mercantile Self Direct Rebate Program Requirements for Vendor Participation

Program Overview

- Duke Energy offers its eligible non-residential customers the opportunity to increase profitability through energy cost savings and contribute to a cleaner environment by participating in our Mercantile Self Direct Rebate Program.
- Under the Duke Energy Mercantile Self Direct Rebate Program, Vendor is defined as any third party who:
 - Promotes the sale and installation of the high efficiency equipment for the customer. The Vendor will ensure that the eligible equipment is installed and operating before submitting the application or assisting the customer in completing the application.
 - Is responsible for the product sale only and is not required to ensure installation of the eligible equipment.
- All license requirements, if any, are solely the Vendor's responsibility. Participating Vendors include equipment contractors, equipment Vendors, equipment manufacturers and distributors, energy service companies, etc. The typical Vendor role is to contact/solicit eligible customers building new or retrofitting existing facilities and encourage the installation of the energy-efficient equipment offered in Duke Energy's program.
- Rebates are paid directly to customers unless the customer assigns the rebate to the Vendor. The assigned rebate must reduce the purchase price paid for the equipment by an equivalent amount. Rebates are taxable to the entity who receives the rebate check. Rebates greater than \$600 will be reported to the IRS unless documentation of tax exempt status is provided.
- Vendors may not represent to customers that Duke Energy endorses their specific products or services. Duke Energy does not endorse specific products, services, or companies – only energy-efficient technologies.
- Vendors may advise customers of their option to have Duke Energy make their rebate check(s) payable to the Vendor if the customer's rebate amount is being deducted from the total sale price in advance. The customer must complete and sign the Payment Release Authorization section of the Mercantile Self Direct Rebate Program Application.
- Vendors may use the words "Duke Energy's Mercantile Self Direct Rebate Program" in promotional materials or advertisements. Vendors may use the name Duke Energy in a text format to describe the Mercantile Self Direct Rebate Program, but are not permitted to use Duke Energy's logos.
- For Vendors who properly install the qualifying equipment, the equipment shall be installed and operating prior to an application being submitted. A percentage of each Vendor's installations will be subject to inspection by Duke Energy for verifying that the equipment is installed and operating. Vendors demonstrating high failure rates (based on a statistically significant sample) will have 100% of subsequent jobs inspected or may have their participation in the Mercantile Self Direct Rebate Program revoked by Duke Energy in its sole discretion.
- Vendors shall provide customers with applicable equipment warranty information for all measures installed. Vendors shall provide the required documentation for customers to apply for the rebate (invoices with model numbers and quantities, specification sheets for installed equipment, etc.) and assist customers in filling out the application.

Vendors can sign up to be on Duke Energy's Web site as a participating Vendor and be added to Duke Energy's e-mail distribution by emailing the Vendor Participation Agreement (VPA) to SelfDirect@duke-energy.com or faxing to 513-629-5582.

Guidelines for Vendor Activities

- Vendors shall sign and return the attached VPA to Duke Energy prior to soliciting customer participation or when submitting an application. Rebate payments will not be released to a Vendor unless a signed VPA is on file.
- Vendors shall not misrepresent the nature of their role in the program. In particular, Vendors shall not state or imply to customers, or any persons, that the Vendor is employed by or working on Duke Energy's behalf.
- Vendors shall comply with all applicable local, state, and federal laws and codes when performing installation and related functions.
- Duke Energy reserves the right to revoke a Vendor's participation in Mercantile Self Direct Rebate Program if, in Duke Energy's sole judgment, the Vendor fails to comply with the program's guidelines and requirements.
- Mercantile Self Direct Rebate Program offerings may be modified or terminated without prior notice. Check Duke Energy's Web site for current program status.

For more information, call 1-866.380.9580 or visit www.duke-energy.com.

Mercantile Self Direct Rebate Program

Technology	Responsible for sales and not installs*	Responsible for sales and Installation*	Technology	Responsible for sales and not installs*	Responsible for sales and Installation*
Lighting	<input type="checkbox"/>	<input type="checkbox"/>	Thermal Storage	<input type="checkbox"/>	<input type="checkbox"/>
Heating Ventilation & Cooling	<input type="checkbox"/>	<input type="checkbox"/>	Pumps/Motors/VFD's	<input type="checkbox"/>	<input type="checkbox"/>
Food Service	<input type="checkbox"/>	<input type="checkbox"/>	Chillers	<input type="checkbox"/>	<input type="checkbox"/>
Water Heating	<input type="checkbox"/>	<input type="checkbox"/>	Refrigeration	<input type="checkbox"/>	<input type="checkbox"/>
Process Equipment (air compressors, injection molding, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	Window Film	<input type="checkbox"/>	<input type="checkbox"/>

* Check all that apply

Vendors who wish to be listed as a Mercantile Self Direct Rebate Program participating Vendor shall complete this form. A signed copy of this form must be on file at Duke Energy in order for the Vendor to receive rebate payments. Fax form to 513-629-5572 or email to SelfDirect@duke-energy.com.

I have read and understand the Mercantile Self Direct Rebate Program Requirements for Vendor Participation, and I agree to comply with all requirements set forth therein. By signing this agreement, I agree to provide my customers with information and documentation that is true and accurate to the best of my knowledge. I hereby represent and warrant that the Tax ID and Vendor Tax Status provided below are true and accurate. I agree that any confidential information concerning my customer, including but not limited to Duke Energy service account information, will be used for the sole purpose of facilitating the customer's participation in the Mercantile Self Direct Rebate Program. Further, I understand that I am responsible for making sure everyone working for me understands the requirements prior to soliciting customer participation.

Vendor Federal Tax ID Number	
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To qualify for Duke Energy rebates, applicants who provide their social security number as their federal tax identification number for tax purposes must sign and return the "Customer consent to release personal information" form ("Consent Form") along with the application. Rebate applications are processed by a third-party vendor. The third-party vendor is responsible for mailing the 1099 form at the end of the calendar year for tax filing. Duke Energy and the third-party vendor have signed confidentiality agreement to protect your personal information. If your social security number is your federal tax ID number and you elect not to sign the Consent Form, please do not send Duke Energy the application, As you will not be qualified to participate in the rebate program.

Vendor Tax Status	<input type="checkbox"/> Corporation	<input type="checkbox"/> Individual/Sole Proprietor	<input type="checkbox"/> Partnership	<input type="checkbox"/> Other
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Contact me via	<input type="checkbox"/> Phone	<input type="checkbox"/> E-Mail	<input type="checkbox"/> Mail
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Company Name	
Mailing Address	
City, State, Zip	
Phone/Fax	
Primary E-mail Address	
Secondary E-mail Address	
Vendor Signature	
Title	
Print Name	
Date	

For more information, call 1-866-380-9580 or visit www.duke-energy.com.

Request for Taxpayer Identification Number and Certification

**Give Form to the
 requester. Do not
 send to the IRS.**

▶ Go to www.irs.gov/FormW9 for instructions and the latest information.

See Specific instructions on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank. Fifth & Race, LLC	
2 Business name/disregarded entity name, if different from above	
3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes.	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):
<input type="checkbox"/> Individual/sole proprietor or single-member LLC	Exempt payee code (if any) <u>5</u> Exemption from FATCA reporting code (if any) _____ <i>(Applies to accounts maintained outside the U.S.)</i>
<input type="checkbox"/> C Corporation	
<input type="checkbox"/> S Corporation	
<input type="checkbox"/> Partnership	
<input type="checkbox"/> Trust/estate	
<input checked="" type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ <u>C</u> Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.	
<input type="checkbox"/> Other (see instructions) ▶	
5 Address (number, street, and apt. or suite no.) See instructions. 1203 Walnut Street, 4th Floor	Requester's name and address (optional)
6 City, state, and ZIP code Cincinnati, Ohio 45202	
7 List account number(s) here (optional)	

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number										
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; border: 1px solid black; height: 20px;"></td> <td style="width: 5%; border: 1px solid black; text-align: center;">-</td> <td style="width: 25%; border: 1px solid black; height: 20px;"></td> <td style="width: 5%; border: 1px solid black; text-align: center;">-</td> <td style="width: 40%; border: 1px solid black; height: 20px;"></td> </tr> </table>		-		-						
	-		-							
OR										
Employer identification number										
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; border: 1px solid black; text-align: center;">3</td> <td style="width: 10%; border: 1px solid black; text-align: center;">2</td> <td style="width: 5%; border: 1px solid black; text-align: center;">-</td> <td style="width: 10%; border: 1px solid black; text-align: center;">0</td> <td style="width: 10%; border: 1px solid black; text-align: center;">3</td> <td style="width: 10%; border: 1px solid black; text-align: center;">7</td> <td style="width: 10%; border: 1px solid black; text-align: center;">4</td> <td style="width: 10%; border: 1px solid black; text-align: center;">7</td> <td style="width: 10%; border: 1px solid black; text-align: center;">0</td> <td style="width: 10%; border: 1px solid black; text-align: center;">7</td> </tr> </table>	3	2	-	0	3	7	4	7	0	7
3	2	-	0	3	7	4	7	0	7	

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	Signature of U.S. person ▶ <i>Cher P. Laines</i>	Date ▶ <u>1-11-18</u>
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.



DUKE ENERGY
Mercantile Self Direct Program
139 East Fourth Street
Cincinnati, OH 45202

Date

Jeff Martin
5th and Race LLC
1410 Race Street
Cincinnati, Ohio, 45202

Subject: Your Application for a Duke Energy Mercantile Self-Direct Rebate

Dear Mr. Martin:

Thank you for your Duke Energy Mercantile Self Direct rebate application. As noted in the Energy Conservation Measure (ECM) chart on page two, a total rebate of \$65,099 has been proposed for your projects (listed in chart below) completed in the 2015 calendar year(s). **All Self Direct Rebates are contingent upon approval by the Public Utilities Commission of Ohio (PUCO).**

At your earliest convenience, please indicate if you accept this rebate by

- providing your signature on page two
- completing the PUCO-required affidavit on page three.

Please return the documents to my attention via fax at 513-629-5572 or e-mail to SelfDirect@Duke-Energy.com. Upon receipt, Duke Energy will submit the necessary documentation to PUCO. Following PUCO's approval, Duke Energy will remit payment.

At Duke Energy, we value your business and look forward to working with you on this and future energy efficiency projects. We hope you will consider our Smart \$aver® incentives, when applicable. Please contact me if you have any questions.

Sincerely,

Robin Avant
Senior Program Manager
Mercantile Self Direct Rebates

cc: Jeannette Stelter
Ken Muth



Please indicate your response to this rebate offer within 30 days of receipt.

Rebate is accepted. Rebate is declined.

By accepting this rebate, 5th and Race, LLC affirms its intention to commit and integrate the energy efficiency projects listed on the following pages into Duke Energy's peak demand reduction, demand response and/or energy efficiency programs.

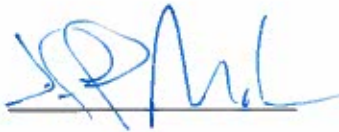
Additionally, 5th and Race, LLC also agrees to serve as joint applicant in any future filings necessary to secure approval of this arrangement as required by PUCO and to comply with any information and reporting requirements imposed by rule or as part of that approval.

Finally, 5th and Race, LLC affirms that all application information submitted to Duke Energy pursuant to this rebate offer is true and accurate. Information in question would include, but not be limited to, project scope, equipment specifications, equipment operational details, project costs, project completion dates, and the quantity of energy conservation measures installed.

If rebate is accepted, will you use the monies to fund future energy efficiency and/or demand reduction projects?

YES NO

If rebate is declined, please indicate reason (optional):



JEFF MARTIN

3-6-15

Customer Signature

Printed Name

Date

Proposed Rebate Amounts

Measure ID	Energy Conservation Measure (ECM)	Proposed Rebate Amount
ECM-1	Window Film – Yr 2015 -Qty. 130,198 Sq. ft (EA143196)	\$65,099.00
ECM-2		
ECM-3		
ECM-4		
ECM-5		
Total		\$65,099.00

Ohio | Public Utilities Commission

18-0659-EL-EEC

Application to Commit
Energy Efficiency/Peak
Demand Reduction
Programs
(Mercantile Customers
Only)

Case No.: ___ - ___ -EL-EEC

State of OHIO :

Jeff Martin, Affiant, being duly sworn according to law, deposes and says that:

1. I am the duly authorized representative of:

5th & Race LLC

[insert customer or EDU company name and any applicable name(s) doing business as]

2. I have personally examined all the information contained in the foregoing application, including any exhibits and attachments. Based upon my examination and inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete.

3. I am aware of fines and penalties which may be imposed under Ohio Revised Code Sections 2921.11, 2921.31, 4903.02, 4903.03, and 4903.99 for submitting false information.

[Signature]
Signature of Affiant & Title



Alice Rolles
Notary Public, State of Ohio
My Commission Expires March 28, 2022

Sworn and subscribed before me this 7 day of March,
2018 Month/Year

[Signature]
Signature of official administering oath

Alice Rolles
Print Name and Title HR OFFICE
[Signature]

My commission expires on 3/28/22

Appendix 1 – Electric History

69203810 01
 METER #
 5TH AND RACE LLC
 120 5TH W
 CINCINNATI, OH 45202

Date	Days	Read	Actual KWH	Bill KWH	Actual Demand	Net Charge	Supplier Charge	KWH/Day	Load Factor	Cost Per Day
12/20/2017	30	7729	33,840	33,840	56	2,700.52	2,013.48	1,128.00	83.9	90.02
11/20/2017	31	7306	34,320	34,320	54.4	2,718.48	2,042.04	1,107.10	84.8	87.69
10/20/2017	29	6877	32,000	32,000	53.6	2,545.02	1,904.00	1,103.40	85.8	87.76
9/21/2017	30	6477	28,320	28,320	52.8	2,322.99	1,685.04	944	74.5	77.43
8/22/2017	29	6123	23,680	23,680	40.8	1,926.27	1,408.96	816.6	83.4	66.42
7/24/2017	32	5827	23,360	23,360	39.2	1,892.58	1,389.92	730	77.6	59.14
6/22/2017	30	5535	24,000	24,000	40	1,936.37	1,428.00	800	83.3	64.55
5/23/2017	29	5235	24,240	24,240	47.2	1,987.22	1,442.28	835.9	73.8	68.52
4/24/2017	32	4932	29,360	29,360	45.6	2,267.37	1,746.92	917.5	83.8	70.86
3/23/2017	29	4565	26,880	26,880	45.6	2,096.27	1,599.36	926.9	84.7	72.29
2/22/2017	29	4229	26,960	26,960	45.6	2,100.85	1,604.12	929.7	84.9	72.44
1/24/2017	34	3892	30,880	30,880	47.2	2,342.19	1,837.36	908.2	80.2	68.89
12/21/2016	33	3506	38,080	38,080	60	2,917.52	2,265.76	1,153.90	80.1	88.41
11/18/2016	29	3030	32,480	32,480	56.8	2,558.64	1,932.56	1,120.00	82.2	88.23
10/20/2016	29	2624	31,840	31,840	52	2,470.29	1,894.48	1,097.90	88	85.18
9/21/2016	30	2226	32,960	32,960	54.4	2,528.12	1,961.12	1,098.70	84.2	84.27
8/22/2016	31	1814	33,920	33,920	52.8	2,567.36	2,018.24	1,094.20	86.3	82.82
7/22/2016	30	1390	32,480	32,480	52.8	2,484.10	1,932.56	1,082.70	85.4	82.8
6/22/2016	30	984	24,000	24,000	52	1,983.33	1,428.00	800	64.1	66.11
5/23/2016	31	684	24,640	24,640	42.4	1,889.15	1,466.08	794.8	78.1	60.94
4/22/2016	29	376	22,880	22,880	42.4	1,797.80	1,361.36	789	77.5	61.99
3/24/2016	30	90	27,120	27,120	40	2,509.72	1,613.64	904	94.2	83.66
2/23/2016	29	5560	25,680	25,680	44.8	1,983.51	1,527.96	885.5	82.4	68.4
1/25/2016	34	5239	29,120	29,120	43.2	2,231.95	1,732.64	856.5	82.6	65.65
12/22/2015	33	4875	25,360	25,360	39.2	1,981.25	1,508.92	768.5	81.7	60.04

Appendix 2 – Annual kWh and kW savings

Measure	Measure Quantity	Unit of Measure	Annual kWh Gross with losses (Per Unit)	TOTAL Annual kWh Gross with losses	Saved Summer coincident kW with losses (Per Unit)	Total KW Gross with losses
SelfDirect Window Film	130198	per sq ft	569,276.12	74,118,612,191	0.00	247.77

Appendix 3 – Cash Rebate

Measure	Amount
SelfDirect Window Film	\$65,099.00
	\$ 65,099.00

Appendix 4 – Utility Cost Test

Measure	UCT
SelfDirect Window Film	6.63
	6.63

Appendix 5 – Avoided Supply Costs

Measure	T&D	Production	Capacity	Quantity	Total Avoided Costs
SelfDirect Window Film	\$98,854.30	\$351,651.59	\$169,256.66	130198	\$619,762.56
					\$ 619,762.56

Appendix 6 – Utility Program Costs

Measure	Qty	Total Costs
SelfDirect Window Film	130198	\$28,351.86
		\$ 28,351.86

29203819 02
METER # 100661819
TOMMIE L LEWIS JR
7007 LOCKER CT
CINCINNATI, OH 45224

Date	Days	Read	Actual KWH	Bill KWH	KWH/Day	Net Charge	Supplier Charge	Cost Per Day
1/10/2018	33	36329	1,535	1,535	46.5	166.53	85.5	5.05
12/8/2017	31	34794	1,171	1,171	37.8	129.33	65.22	4.17
11/7/2017	29	33623	940	940	32.4	106.12	52.36	3.66
10/9/2017	31	32683	1,146	1,146	37	126.8	63.83	4.09
9/8/2017	30	31537	1,085	1,085	36.2	120.8	60.43	4.03
8/9/2017	29	30452	1,139	1,139	39.3	126.22	63.44	4.35
7/11/2017	32	29313	1,340	1,340	41.9	146.45	74.64	4.58
6/9/2017	30	27973	931	931	31	104.84	51.86	3.49
5/10/2017	30	27042	897	897	29.9	107.13		3.57
4/10/2017	31	26145	962	962	31	114.07		3.68
3/10/2017	29	25183	969	969	33.4	116.33		4.01
2/9/2017	29	24214	992	992	34.2	118.79		4.1
1/11/2017	34	23222	1,208	1,208	35.5	137.78		4.05
12/8/2016	31	22014	907	907	29.3	110.54		3.57
11/7/2016	31	21107	803	803	25.9	99.31		3.2
10/7/2016	29	20304	990	990	34.1	119.5		4.12
9/8/2016	30	19314	1,315	1,315	43.8	151.91		5.06
8/9/2016	29	17999	1,437	1,437	49.6	164.57		5.67
7/11/2016	32	16562	1,343	1,343	42	154.59		4.83
6/9/2016	30	15219	877	877	29.2	104.84		3.49
5/10/2016	29	14342	831	831	28.7	104.61		3.61
4/11/2016	32	13511	1,047	1,047	32.7	127.56		3.99
3/10/2016	29	12464	948	948	32.7	117.86		4.06
2/10/2016	29	11516	1,007	1,007	34.7	124.37		4.29
1/12/2016	34	10509	1,083	1,083	31.9	130.88		3.85

40303810 01
METER # 108261241
5TH AND RACE LLC
501 RACEMISC: FIRE PUMP
CINCINNATI, OH 45202

Date	Days	Actual Der	Bill Demar	Net Charge	Cost Per Day
12/20/2017	30	0		26.45	0.88
11/20/2017	31	0		26.45	0.85
10/20/2017	29	32		26.45	0.91
9/21/2017	30	0		26.02	0.87
8/22/2017	29	0		26.02	0.9
7/24/2017	32	55.2		26.02	0.81
6/22/2017	30	0		25.77	0.86
5/23/2017	29	3.2		25.77	0.89
4/24/2017	32	0		25.77	0.81
3/23/2017	29	13.6		27.67	0.95
2/22/2017	29	0		27.67	0.95
1/24/2017	34	0.8		27.67	0.81
12/21/2016	33	53.6		59.55	1.8
11/18/2016	29	10.4		59.55	2.05
10/20/2016	29	0	5	59.55	2.05
9/21/2016	30	0	5	59.23	1.97
8/22/2016	31	0	42.16	59.23	1.91
7/22/2016	30	0	42.16	59.23	1.97
6/22/2016	30	36.8	42.16	58.9	1.96
5/23/2016	31	0	42.16	58.9	1.9
4/22/2016	29	0	42.16	58.9	2.03
3/24/2016	30	0	42.16	58.68	1.96
2/23/2016	29	0	42.16	58.68	2.02
1/25/2016	34	0	42.16	58.68	1.73
12/22/2015	33	46.4		57.97	1.76



VIRACON®

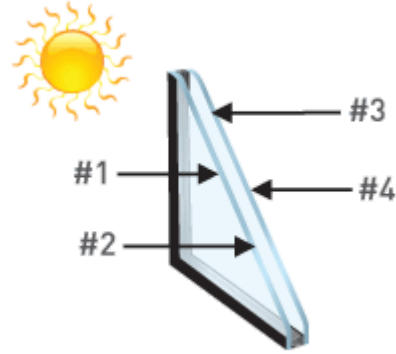
GLASS IS EVERYTHING™

1" (25mm) Insulating VE1-2M

PERFORMANCE DATA

Transmittance	
Visible Light	70%
Solar Energy	33%
UV	10%
Reflectance	
Visible Light-Exterior	11%
Visible Light-Interior	12%
Solar Energy	31%
NFRC U-Value	
Winter	0.30 Btu/(hr x sqft x °F)
Summer	0.26 Btu/(hr x sqft x °F)
Shading Coefficient (SC)	0.44
Relative Heat Gain	91 Btu/(hr x sqft)
Solar Heat Gain Coefficient (SHGC)	0.38
LSG	1.84

Makeup



1/4" (6mm) clear VE-2M #2
 1/2" (13.2mm) airspace
 1/4" (6mm) clear

Viracon's solar and optical performance data is center of glass data based on the National Fenestration Rating Council measurement standards, calculated using Lawrence Berkeley National Laboratory's (LBNL) WINDOW 7 software.