

Legal Department

May 31, 2017

Chairman Asim Z. Haque Public Utilities Commission of Ohio 180 East Broad Street Columbus, OH 43215-3793

Re: In the Matter of the Application of)	
Vaughn Industries LLC)	
and Ohio Power Company)	Case No. 17-0991-EL-EEC
for Approval of a Special Arrangement)	
Agreement with a Mercantile Customer)	

Dear Chairman Haque,

Ryan Aguiar Fellow

Regulatory Services (614) 716-2931 (T)

(614) 716-2950 (F) raguiar@aep.com

Attached please find the Joint Application of Ohio Power Company (AEP Ohio) and the above-referenced mercantile customer for approval of a Special Arrangement of the commitment of energy efficiency/peak demand reduction (EE/PDR) resources toward compliance with the statutory benchmarks for 2017 (hereinafter "Joint Application").

Amended Substitute Senate Bill 221, codified at R.C. 4928.66, sets forth EE/PDR benchmarks that electric distribution utilities are required to meet or exceed. The statute allows utilities to include EE/PDR resources committed by mercantile customers for integration into the utilities' programs to be counted toward compliance with a utility's EE/PDR benchmarks. The statute also enables the Commission to approve special arrangements for mercantile customers that commit EE/PDR resources to be counted toward compliance with EE/PDR benchmarks.

The Commission's Order in Case No. 10-834-EL-EEC established a streamlined process to expedite review of these special arrangements by developing a sample application process for parties to follow for consideration of such programs implemented during the prior three calendar years. The attached Joint Application and affidavit conforms with AEP Ohio's version of the streamlined sample application. As requested by Commission Staff, any confidential information referenced in the Joint Application has been provided confidentially to Commission Staff for filing in Commission Docket 10-1599-EL-EEC and subject to the confidentially protections of R.C. 4901.16 and OAC 4901-1-24(E). AEP Ohio respectfully requests that the Commission treat the two cases as associated dockets and that any confidential information provided to Staff for filing in connection with the Joint Application be subject to the protective order requested in Docket 10-1599-EL-EEC.

Joint Applica	ation be subjec
Cordially,	
<u>/s/ Ryan Agu</u> Ryan Aguiar	
Attachments	



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

Case No.: 17-0991-EL-EEC

Mercantile Customer: VAUGHN INDUSTRIES LLC

Electric Utility: Ohio Power

Program Title or Description: AEP Ohio Business Incentives for Energy Efficiency: Self Direct Program

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. <u>10-834-EL-POR</u>

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: Company Information

territory.

Name: VAUGHN INDUSTRIES LLC Principal address: 1201 E Findlay St, Carey, Oh 43316 Address of facility for which this energy efficiency program applies: 7749 Green Meadows Dr, Lewis Center, Oh 43035-9445 Name and telephone number for responses to questions: John Barnes, Vaughn Industries Llc, (419) 722-9981 Electricity use by the customer (check the box(es) that apply): The customer uses more than seven hundred thousand kilowatt hours per year at our facility. (Please attach documentation.) See Confidential and Proprietary Attachment 4 – Calculation of Rider Exemption and UCT which provides the facility consumption for the last three years, benchmark kWh, and the last 12 months usage. The customer is part of a national account involving multiple facilities in one or more states. (Please attach documentation.) When checked, see Attachment 6 – Supporting Documentation for a listing of the customer's name and service addresses of other accounts in the AEP Ohio service

Section 2: Application Information

A)	The	customer is filing this application (choose which applies):		
		Individually, on our own.		
	\boxtimes	Jointly with our electric utility.		
B)	Our	electric utility is: Ohio Power Company		
	"Cor	The application to participate in the electric utility energy efficiency program is "Confidential and Proprietary Attachment 3 – Self Direct Program Project Completed Application."		
C)	The	customer is offering to commit (choose which applies):		
		Energy savings from our 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.)		
	\boxtimes	Both the energy savings and the demand reduction from the customer's energy efficiency program. (Complete all sections of the Application.)		

Section 3: Energy Efficiency Programs

A)	The	The customer's energy efficiency program involves (choose whichever applies)		
		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):		
-		Installation of new equipment for new construction or facility expansion. The customer installed new equipment on the following date(s): 5/16/2016 Behavioral or operational improvement.		
B)		If you checked the box indicating that your 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 you 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 the less efficient new equipment that you rejected in favor		

3) If you checked the box indicating that your project involves equipment for new construction or facility expansion, then calculate the annual savings

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of the more efficient new equipment.

[(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:

Unit Quantity (watts) = Existing (watts x units) – Installed (watts x units)

kWh Reduction (Annual Savings) = Unit Quantity x (Deemed kWh/Unit)

Annual savings: 21,089 kWh

See <u>Confidential and Proprietary Attachment 5 – Self Direct Program</u>
<u>Project Calculation</u> for annual energy savings calculations and <u>10-1599-EL-EEC</u> for the work papers that provide all methodologies, protocols, and practices used in this application for prescriptive measures, as needed.

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

The less efficient new equipment is the minimum required by Ohio State code or Federal Standard whichever is more stringent. For those measures where no code applies the baseline equipment is assumed to be the least efficient equipment available in the marketplace or standard practice, whichever results in the most conservative annual savings. Any information available describing the less efficient new equipment option is provided in 10-1599-EL-EEC for the work papers that provide all methodologies, protocols, and practices used in this application for prescriptive measures.

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.

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 efficient program.	.cy		
	Actual peak-demand reduction. (Attach a description and documentation of the peak-demand reduction.)	on		
	Potential peak-demand reduction (choose which applies):			
	Choose one or more of the following that applies:			
	The customer's peak-demand reduction program meets to requirements to be counted as a capacity resource under a tart of a regional transmission organization (RTO) approved by the Federal Energy Regulatory Commission.	iff		
	The customer's peak-demand reduction program meets to requirements to be counted as a capacity resource under program that is equivalent to an RTO program, which has be approved by the Public Utilities Commission of Ohio.	а		
B)	On what date did the customer initiate its demand reduction program?			
	The coincident peak-demand savings are permanent installations that reduce demand through energy efficiency and were installed on the date specified in Section 3 A above.			
C)	What is the peak demand reduction achieved or capable of being achieved (sho calculations through which this was determined):	w		
	Unit Quantity (watts) = Existing (watts x units) – Installed (watts x units)			
	KW Demand Reduction = Unit Quantity (watts) x (Deemed KW/Unit (watts)))		
	3.0 kW			
	See <u>Confidential and Proprietary Attachment 5 – Self Direct Program Project</u> <u>Calculation</u> for peak demand reduction calculation, and <u>10-1599-EL-EEC</u> for the work papers that provide all methodologies, protocols, and practices used in	ıe		

work papers that provide all methodologies, protocols, and practices used in this application for prescriptive measures, as needed.

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 custon	ner is applying for:	
	Optio	n 1: A cash rebate reasonable arrangement.	
	OR	·	
		n 2: An exemption from the cost recovery mechanism implemented e electric utility.	
	OR		
	Comr	mitment 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 \$ 1,165.47. (Rebate shall not exceed 50% project cost. Attach documentation showing the methodology used to determine the cash rebate value and calculations showing how this payment amount was determined.)	
		See <u>Confidential and Proprietary Attachment 5 – Self Direct</u> <u>Program Project Calculation</u> for incentive calculations for this mercantile program.	
	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 wad determined.)
OR
A commitment payment valued at no more that \$ (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 an ongoing efficiency program that is practiced by our organization. (Attack documentation that establishes your organization' ongoing efficiency program. In order to continue the exemption beyond the initial 24 month period your organization 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: 5.00 (Skip to Subsection 2.)
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 utility's 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 \$ 6,463.15
The utility's program costs were \$ 126.53
The utility's incentive costs/rebate costs were \$ 1,165.47.

Section 7: Additional Information

Please attach the following supporting documentation to this application:

- Narrative description of your program including, but not limited to, make, model, and year of any installed and replaced equipment.
 - See <u>Attachment 1 Self Direct Project Overview and Commitment</u> for a description of the project. See <u>Attachment 6 Supporting Documentation</u>, for the specifications of the replacement equipment <u>10-1599-EL-EEC</u> for the work papers that provide all methodologies, protocols, and practices used in this application for prescriptive measures, as needed. Due to the length of time since the equipment replacement, the make, model and year of the replaced equipment is not available.
- A copy of the formal declaration or agreement that commits your program to the electric utility, including:
 - 1) any confidentiality requirements associated with the agreement;
 - See Attachment 2 Self Direct Program Project Blank Application including Rules and Requirements. All confidentially requirements are pursuant to the Retrospective Projects/Rules and Requirements that are part of the signed application which is provided as Confidential and Proprietary Attachment 3 Self Direct Program Project Completed Application.)
 - 2) a description of any consequences of noncompliance with the terms of the commitment;
 - See Attachment 2 Self Direct Program Project Blank Application including Rules and Requirements. All consequences of noncompliance are pursuant to the Retrospective Projects/Rules and Requirements that are part of the signed application which is provided as Confidential and Proprietary Attachment 3 Self Direct Program Project Completed Application.
 - 3) a description of coordination requirements between the customer and the electric utility with regard to peak demand reduction;
 - None required because the resources committed are permanent installations that reduce demand through increased efficiency during the Company's peak summer demand period generally defined as May through September and do not require specific coordination and

- communication to provide demand reduction capabilities to the Company.
- 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,
 - See <u>Attachment 2 Self Direct Program Blank Application</u> including Rules and Requirements granting such permission pursuant to the Retrospective Projects/Rules and Requirements that are part of the signed application which is provided as <u>Confidential and Proprietary Attachment 3 Self Direct Program Project Completed Application</u>.
- 5) a commitment by you to provide an annual report on your energy savings and electric utility peak-demand reductions achieved.
 - See <u>Attachment 1 Self Direct Project Overview and Commitment</u> for the commitment to comply with any information and compliance reporting requirements imposed by rule or as part of the approval of this arrangement by the Public Utilities Commission of Ohio.
- 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.
 - The Company applies the same methodologies, protocols, and practices to Self Direct Program retrospective projects that are screened and submitted for approval as it does to prospective projects submitted through its Prescriptive and Custom Programs. The Commission has not published a technical reference manual for use by the Company so deviations can not be identified. The project submitted is a prescriptive project and energy savings are determined as described in Confidential and Proprietary Attachment 5 Self Direct Program Project Calculation, and 10-1599-EL-EEC for the work papers that provide all methodologies, protocols, and practices used in this application for prescriptive measures, as needed.



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

Case No.: 17-0991-EL-EEC
State of Ohio:
R-CEKAR IYER, Affiant, being duly sworn according to law, deposes and says that:
1. I am the duly authorized representative of:
DNV GL Energy Services USA Inc. agent of Ohio Power
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.
Signature of Affiant & Title
Sworn and subscribed before me this A8 day of April , 2017 Month/Year Daw G. Irwing / Notery Print Name and Title
My commission expires on 9-3-2019
DAWN G IRVING NOTARY PUBLIC STATE OF OHIO

Comm. Expires September 03, 2019



Attachment 1 Self Direct Project Overview & Commitment Page 1 of 1

Self Direct Project Overview & Commitment

Efficiency/Feak Demand Response program. Based on your submitted project, please select by initialing one of the two options below, sign and fax to 877-607-0740. Customer Name APP-17-20445 Customer Premits Address 7749 GREEN MEADOWS DR, LEWIS CENTER, OH 43035-9445 Customer Mailling Address 1201 E Findley, St, Cares, OH 43316 Date Received 1302/2017 Project Installation Date Annual KWB Reduction 21,089 Total Project Cott Landjusted Energy, Efficiency Credit (EEC) Calculation Single Payaback (177) Londjusted Energy, Efficiency Credit (EEC) Calculation Silphore Premits of the Exemption Note: This is a one time selection. By selecting EEC, the customer will receive payment in the anomal stated above. Selection of EEP/DR rider exemption in addition, the term of EEP/DR rider exemption is any other energy efficiency projects? Note: This is a one time selection. By selecting EEC, the customer will receive payment in the anomal stated above. Selection of EEP/DR rider exemption in the customer not being eligible to participant is any other energy efficiency programs offered by AEP Old undering the particle of exemption in addition, the term of EEP/DR rider exemption is any other energy efficiency projects? IEEC has been selected, will the Energy Efficiency Funds selected help you move forward with other energy efficiency projects? Note: EEDR wayme, Application sum file or renewal for any exemption is subject to maging eview for compliance and could be changed by the PUCO. IEEC has been selected, will the Energy Efficiency Funds selected help you move forward with other energy efficiency projects? Note: EEDR wayme, Applications unif for renewal for any exemption beyond 12 months. Project Overview: The Self Direct (Prescriptive and Custom) project that the above has completed and applied is as follows. As part of the construction of a new facility, energy efficienty programs. By signing, the Mercantile customer also ogrees to serve or a joint applicant in any filings necessary to secure approach of	The Public Utility Commission of Ohio (PUCO) will soon			
Customer Name APT-70445 Customer Promite Address 7749 GREEN MEADOWS DR, LEWIS CENTER, OH 43035-9445 Customer Maillie Address 1201 E Finding St, Cares, OH 43316 Date Received 7749 GREEN MEADOWS DR, LEWIS CENTER, OH 43035-9445 Customer Maillie Address 1202 E Finding St, Cares, OH 43316 Date Received 7750-16 Annual RWB Reduction 121,899 Total Project Cost 124,951.04 Unadjusted Energy Efficiency Credit (EEC) Calculation S1,553.06 Simple Paback (res) 120 Utility Cost Test (UCT) for EEC 15.00 Utility Cost Test (UCT) for Exemption 81,553.06 Self Direct EEC: 75% S1,165.47 Initial: NA Note: This is a one time selection. By selecting EEC, the customer will receive payment in the amount stated above. Selection of EE/PDR rider exemption, will result in the customer not being eligible to participate in any other energy efficiency programs uffered by AEP Ohn during the period of exemption in addition, the ren't gibble to participate in any other energy efficiency programs uffered by AEP Ohn during the PUCO. Note: Exemptions for periods beyond 24 months are subject to look-back or trac-up adjustments every year to ensure that the exemption accurately reflects the EECR awings. Application surf life for renewal for any exemption beyond 12 months. Project Overview: The Self Direct (Prescriptive and Custom) project that the above has completed and applied is as follows. As part of the construction of a new facility, energy efficient LED lightings were installed in interior and exterior spaces The documentation that was included with the application proved that the energy measures applied for were purchased and installed. By signing this document, the Mercantile customer effirms its intention to commit and lategrate the above listed energy efficiency resources into the utility's peak demand reduction, demand response, and energy efficiency programs. By signing, the Mercantile customer abo agrees to serve or a joint applicant in applings necessary to secure approach of this arrangement by the Public U	Efficiency/Peak Demand Response program. Based on you	r submitted project, please select by initialing or	ie of the two options below,	
Project Number	sign and fax to 877-607-0740.		4	
Customer Premise Address 1749 GREEN MEADOWS DR. LEWIS CENTER, OH 43035-9445 Customer Mailing Address 120 E Finding St, Carey, OH 43316 Date Received 370:7017 Project Installation Date Annual KWh Reduction 121,089 Total Project Cost Unadjusted Energy. Efficiency Credit (EEC) Calculation St. 1553.96 Simple Parback (178) Undities Cost Test (UCT) for EEC Gillity Cost Test (UCT) for Exemption Please Choose One Option Below and Initia Self Direct EEC: 75% St. 165.47 EE/PDR Rider Exemption Note: This is a one time selection. By selecting EEC, the customer will receive payment in the anount stated above. Selection of EE/PDR rider exemption, will result in the customer not being eligible to participate in any other energy efficiency programs affered by AEP Ohio during the period of exemption. In addition, the term of EE/PDR rider exemption is subject to angoing rower for compliance and contide be changed by the PUCO. Note: Exemptions for periods beyond 24 months are subject to loak-back or trac-up adjustments every year to ensure that the exemption accurately reflects the EEDR avings. Applicants must file for renewal for any exemption by any and the Exemption is an interest of the EEDR and the exemption and customs must file for renewal for any exemption by any and any other energy efficiency programs effected by AEP Ohio during the PUCO. Note: Exemptions for periods beyond 24 months are subject to loak-back or trac-up adjustments every year to ensure that the exemption accurately reflects the EEDR avings. Applicants must file for renewal for any exemption by and 12 months. Project Overview: The Self Direct (Prescriptive and Custom) project that the above has completed and applied is as follows. As part of the construction of a new facility, energy efficient programs. By signing, the Mercantile customer ado agrees to serve as a joint applicant on any fluinge necessary to secure agreement by the Public Utilities Commission of Ohio, and comply with any information and compliance reporting requireme				
Customer Mailing Address 1201 E Finillay St, Carey, OH 43316	Project Number			
Date Received Project Installation Date Sh562016 Annual kWh Reduction 121,889 Total Project Cost Unadjusted Energy. Efficiency Credit (EEC) Calculation Sl,553.96 Simple Pa-back (175) Unitity Cost Test (UCT) for EEC Utility Cost Test (UCT) for EEC Utility Cost Test (UCT) for Exemption Self Direct EEC: 75% Sl,165.47 Flease Choose One Option Below and Installation. Self Direct EEC: 75% Sl,165.47 Flease Choose One Option Below and Installation. Note: This is a one time selection. By selecting EEC. the customer will receive payment in the amount sated above. Selection of EE/PDR rider exemption. will result in the customer not being eligible to participate in any other energy efficiency programs affered by AEP Ohio during the period of exemption. In addition, the term of EE/PDR rider exemption is subject to angoing review for compliance and could be changed by the PUCO. If EEC has been selected, will the Energy Efficiency Funds selected bely you move forward with other energy efficiency programs affered by AEP Ohio during the period of exemption for periods beyond 24 months are subject to took-back or true-up adjustments every year to ensure that the exemption accurately reflects the EEDR swings. Applicants must file for renewal for any exemption beyond 12 months. Project Overview: The Self Direct (Prescriptive and Custom) project that the above has completed and applied is as follows. As part of the construction of a new facility, energy efficient LED lightings were installed in interior and exterior spaces The documentation that was included with the application proved that the energy measures applied for were purchased and installed. By signing this document, the Mercantile customer affirms its intention to commit and integrate the above listed energy efficiency resources into the utility is peak demand reduction, demand response, and energy efficiency programs. By signing, the Mercantile customer also agrees to serve as a joint applicant in any flings necessary to secure approval of this arrangement	Customer Premise Address		ER, OH 43035-9445	
Project Installation Date St.16.2016	Customer Mailing Address			
Annual kWh Reduction 12,089 Total Project Cost 14,951.04 Unadjusted Enerty. Efficiency Credit (EEC) Calculation 15,153.96 Simple Packack (178) 10,06 Utility Cost Test (UCT) for EEC 10,06 Utility Cost Test (UCT) for Exemption 12,00 Utility Cost Test (UCT) for Exemption 13,165.47 Please Choose One Option Below and Initia Self Direct EEC: 75% S1,165.47 Initial: NiA Note: This is a one time selection. By selecting EEC, the customer will receive payment in the amount sated above. Selection of EE/PDR rider exemption, will result in the customer not being eligible to participate in any other energy efficiency programs affored by AEP Ohio during the period of exemption. In addition, the term of EE/PDR rider exemption is subject to ongoing review for compliance and could be changed by the PUCO. If EEC has been selected, will the Energy Efficiency Funds selected belty you move forward with other energy efficiency programs affored by AEP Ohio during the period of exemption for periods beyond 24 months are subject to took-back or trae-up adjustments every year to ensure that the exemption accurately reflects the EEDR subject. YES Note: Exemptions for periods beyond 24 months are subject to took-back or trae-up adjustments every year to ensure that the exemption accurately reflects the EEDR subject. YES Note: EEDR subject. Applicants must file for renewal for any exemption beyond 12 months. Project Overview: The Self Direct (Prescriptive and Custom) project that the above has completed and applied is as follows. As part of the construction of a new facility, energy efficient LED lightings were installed in interior and exterior spaces The documentation that was included with the application proved that the energy measures applied for were purchased and installed. By signing this document, the Mercantile customer affirms its intention to commit and integrate the above listed energy efficiency resources into the utility is peak demand reduction, demand response, and energy efficiency programs. By sig	Date Received	3/20/2017		
Styles S	Project Installation Date	5/16/2016		
Unadjusted Energy Efficiency Credit (EEC) Calculation \$1,553,96 Simple Payback (crs) Cullity Cost Test (UCT) for EEC Cullity Cost Test (UCT) for EEC Cullity Cost Test (UCT) for EEC Cullity Cost Test (UCT) for Exemption 0.06 Please Choose One Option Below and Initial: Self Direct EEC: 75% S1,165.47 Initial: N/A Self Direct EEC: 15% S1,165.47 Initial: N/A Self Direct EEC: 15% Self Direct E	Annual kWh Reduction	21,089		
Simple Payback (vrs)		\$4,951.04		
Utility Cost Test (UCT) for EXEMPTION Self Direct EEC: 75% S1,165.47 Initial: EE/PDR Rider Exemption 12 Months (with possible extension up to N/A months after PUCO Approval) Initial: N/A Note: This is a one time selection. By selecting EEC, the customer will receive payment in the amount stated above. Selection of EE/PDR rider exemption, will result in the customer not being eligible to participate in any other energy efficiency programs offered by AEP Ohio during the period of exemption. In addition, the term of EE/PDR rider exemption is subject to angoing review for compliance and could be changed by the PUCO. IEEC has been selected, will the Energy Efficiency Funds selected help you move forward with other energy efficiency projects? YES NO Note: Exemptions for periods beyond 24 months are subject to look-back or tracu-up adjustments every year to ensure that the exemption accurately reflects the EEDR savings. Applicants must file for renewal for any exemption beyond 12 months. Project Overviews: The Self Direct (Prescriptive and Custom) project that the above has completed and applied is as follows. As part of the construction of a new facility, energy efficient LED lightings were installed in interior and exterior spaces The documentation that was included with the application proved that the energy measures applied for were purchased and installed. By signing this document, the Mercantile customer affirms its intention to commit and integrate the above listed energy efficiency resources into the military is pade demand reduction, demand response, and energy efficiency programs. By signing, the Mercantile customer also agrees to serve as a joint applicant in any filings necessary to secure approval of this arrangement by the Public Utilities Commission of Ohio, and comply with any information and compliance reporting requirements imposed by rale or as part of that approval. Ohio Power Company VAUGHN INDUSTRIES LLC By: John DAFMES WALSOUTT	Unadjusted Energy Efficiency Credit (EEC) Calculation	\$1,553.96		
Self Direct EEC: 75% SI,165.47 Initial: Note: This is a one time selection. By selecting EEC, the customer will receive payment in the amount stated above. Selection of EEPDR rider exemption. Note: This is a one time selection. By selecting EEC, the customer will receive payment in the amount stated above. Selection of EEPDR rider exemption. Will result in the customer not being eligible to participate in any other energy efficiency programs offer year payments may be provided of exemption. In addition, the term of EEPDR rider exemption is subject to angoing review for compliance and could be changed by the PUCO. Nate: Exemptions for periods beyond 24 months are subject to look-back or true-up adjustments every year to ensure that the exemption accurately reflects the EEDR savings. Applicants must file for renewal for any exemption beyond 12 months. Project Overview: The Self Direct (Prescriptive and Custom) project that the above has completed and applied is as follows. As part of the construction of a new facility, energy efficient LED lightings were installed in interior and exterior spaces The documentation that was included with the application proved that the energy measures applied for were purchased and installed. By signing this document, the Mercantile customer affirms its intention to commit and integrate the above listed energy efficiency resources into the utility is peak domand reduction, demand response, and energy efficiency programs. By signing, the Mercantile customer also agrees to serve as a joint applicant in any flings necessary to secure approval of this arrangement by the Public Utilities Commission of Ohio, and comply with any information and compliance reporting requirements imposed by rule or as part of that approval. By: John DAPERS Manager HISTORIES INC. Manager Title: Manager	Simple Payback (yrs)	2.0		
Self Direct EEC: 75% SI,165.47 Initial: Note: This is a one time selection. By selecting EEC, the customer will receive payment in the amount stated above. Selection of EEPDR rider exemption. Note: This is a one time selection. By selecting EEC, the customer will receive payment in the amount stated above. Selection of EEPDR rider exemption. Will result in the customer not being eligible to participate in any other energy efficiency programs offer year payments may be provided of exemption. In addition, the term of EEPDR rider exemption is subject to angoing review for compliance and could be changed by the PUCO. Nate: Exemptions for periods beyond 24 months are subject to look-back or true-up adjustments every year to ensure that the exemption accurately reflects the EEDR savings. Applicants must file for renewal for any exemption beyond 12 months. Project Overview: The Self Direct (Prescriptive and Custom) project that the above has completed and applied is as follows. As part of the construction of a new facility, energy efficient LED lightings were installed in interior and exterior spaces The documentation that was included with the application proved that the energy measures applied for were purchased and installed. By signing this document, the Mercantile customer affirms its intention to commit and integrate the above listed energy efficiency resources into the utility is peak domand reduction, demand response, and energy efficiency programs. By signing, the Mercantile customer also agrees to serve as a joint applicant in any flings necessary to secure approval of this arrangement by the Public Utilities Commission of Ohio, and comply with any information and compliance reporting requirements imposed by rule or as part of that approval. By: John DAPERS Manager HISTORIES INC. Manager Title: Manager	Utility Cost Test (UCT) for EEC	5.00		
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Title: Manager Title: 3usinss Development M/13/2017	By signing this document, the Mercantile customer affirms its inte utility's peak demand reduction, demand response, and energy ef joint applicant in any filings necessary to secure approval of this information and compliance reporting requirements imposed by r	ention to commit and integrate the above listed energy ficiency programs. By signing, the Mercantile custom arrangement by the Public Utilities Commission of O cule or as part of that approval. VAUGHN INDUSTRIES LLC	efficiency resources into the ter also agrees to serve as a	
1/13/2017 H/13/2017	By Manager	By: Dend De	reat	
	4/13/2017	W/12/2017		



APPLICATION GUIDELINES

All 2017 AEP Ohio Business Incentives Program projects must be completed and Final Applications received no later than November 10, 2017, in order to qualify for incentives identified in this application.

Step 1: Verify Eligibility

- Customer must have a valid AEP Ohio account.
- Equipment/measure must be installed at facilities served by the AEP Ohio account.
- Project must produce permanent reduction in electrical energy use (kWh).
- All installed equipment must meet or exceed the specifications in the application.
- ✓ Please see the Terms and Conditions for Self-Direct or
- <u>Terms and Conditions</u> for all other programs for program eligibility and requirements.

Step 2: Complete Applicant Information

- All fields in customer and project information sections must be completed.
- Solution Provider/contractor information must be completed if project is not self-performed.

Step 3: Complete the Incentive Worksheet(s)

- Find and read specifications related to the project.
- Ensure new equipment/measure meets or exceeds the specifications.
- Choose the incentive category on the worksheet based on the installed equipment and specifications.
- Complete all fields (fixture description, operating hours, etc.) on the related worksheet.

Step 4: Sign Customer Agreement

- Read the Terms and Conditions before signing and submitting the application.
- Sign Pre-Approval Agreement and submit the application to reserve funds.
- Sign Final Application Agreement and submit the application after the project is completed.
- Complete Third Party Payment Release Authorization ONLY if incentive payment is to be paid to an entity other than AEP Ohio customer listed on the Applicant Information page.

Step 5: Submit Pre-Approval Application¹ (For Self-Direct applications, skip to Step 7)

Submitting a Pre-Approval Application to determine

- qualification and reserve program funds for a project is strongly recommended.
- ✓ All Process Efficiency measures require pre-approval.
- Complete all fields for Pre-Approval Agreement section.
- ✓ Pre-Approval Application must be submitted with:
 - Proposed scope of work (type and quantity of old and new equipment must be listed)
 - · Specification sheets for all proposed equipment
 - W-9 form
- Submit application via email, fax or mail.
- During the application review, an inspection may be required; the team will contact applicants requiring an inspection for scheduling.

Step 6: Complete Project

 New equipment must be installed and operational to submit a Final Application.

Step 7: Submit Final Application

- Submit a Final Application.
- Use the same application used during pre-approval (if applicable).
 - Change Application Type to Final Application
- Complete all fields for Final Application Agreement section.
- Update the application if there are any changes (customer contact, incentive measure, equipment, etc.).
- ✓ Final Application must be submitted with:
 - · Dated and itemized material invoice
 - · External labor invoice (if applicable)
 - If Pre-Approval Application was not submitted, include the documents listed on Step 5
- Submit application via email, fax or mail.
- During the application review, an inspection may be required; the team will contact applicants requiring an inspection for scheduling.

Additional steps are required for Self-Direct applications after application submission. Please see the Self-Direct Terms and Conditions for details.

AEP Ohio Business Incentives Program

445 Hutchinson Avenue, Suite 300
Columbus, Ohio 43235
877-541-3048 | aepohiosolutions@clearesult.com
Visit our website at AEPohio.com/solutions

¹A Pre-Approval Application is not a guarantee of an incentive; the actual incentive will be based on the energy savings and equipment installed as determined in the Final Application. Funds are reserved for 90 days, unless an applicant is granted an extension. The program team reserves the right to contact the customer before the reservation expiration date to ensure that the project is moving forward. If the project is not underway, the reservation may be cancelled. Reserved funds are not transferable to other projects, facilities and/or customers. A waiting list will be established when funds become fully subscribed.



CHECKLIST OF REQUIRED ATTACHMENTS

PRE-APPROVAL □ Completed Applicant Information Form □ Estimated Total Project Cost □ Estimated Completion Date □ Completed Incentives Requested Section of Application □ Applicable Incentive Worksheets □ Completed Third-Party Payment Release Authorization Section with W9 (optional) □ Signed Customer Agreement Form □ Equipment Speci ications □ Proposed Scope of Work □ W-9 (Customer's W-9 or 3rd party W-9, if applicable)	
FINAL APPLICATION ONLY (NO PRE APP SUBMITTED) Completed Applicant Information Form Completed Incentives Requested Section of Application Applicable Incentive Worksheets Total Project Cost Completion date Completed and Signed Final Payment Agreement and Customer Agreement Forms Completed Third-Party Payment Release Authorization Section with W9 (optional)) Itemized Invoices Equipment Speci ications Scope of Work W-9 (Customer's W-9 or 3rd party W-9, if applicable)	
FINAL APPLICATION (IF PRE APP HAS BEEN SUBMITTED) Completed Applicant Information Form (optional) Assigned Project Number on Signature Page Total Project Cost Project Completion Date Completed and Signed Final Payment Agreement and Customer Agreement Forms Completed Third-Party Payment Release Authorization Section (optional) Itemized Invoices Updated Scope of Work (if there were changes from pre) Applicable Incentive Worksheets (if there were changes from pre)	

AEP Ohio Business Incentives Program

445 Hutchinson Avenue, Suite 300 Columbus, Ohio 43235 877-541-3048 | aepohiosolutions@clearesult.com Visit our website at AEPohio.com/solutions

Revised Submittal

Please complete below if this is a revised submittal. Submittal date____ AEP Project Number (if known) AEP - _ _ - _ _ _



APPLICANT INFORMATION

AEP Application Number AEP	Application Type (Select One)	
V .		
Customer Information	《美国教育》的《大学》。	
Business Name		
Name as It Appears on Utility Bill		
AEP Ohio Account Number* at Project Site N	Multiple AEP Ohio Account Numbers for this Project? (5	Select O
Taxpayer ID W-9 Tax Status	(Select One)	
Contact Name Co	ontact Title	
Mailing Address - where check will be sent		
Mailing Address	City State OH Zip	9
Phone Ext Cor	ntact Email	
How Did You Hear About the Program? (Select One)	AEP OH Energy Advisor	
Project Information		
Project Name (if applicable)		
Check if mailing address and project site address are the same.		
Project Site Address	CityState OH Zip _	
uilding Type (Select One) Shift (Select One)		
Annual Operating Hours Bu	uilding Area (sq. ft.)	
Construction Type (Select One)		
Does the facility have a data center? (Select One)		

^{*}Please only enter the first eleven digits of the account number.



APPLICANT INFORMATION

Solution Provider/Contracto	or Information (I	fpro	ject is not	t se	f-perform	ed by cus	tomer)	
Contracting Company Name								
Contact Name			Title of Con	ntact _				
Mailing Address			City			_ State _. OH	Zip	
Phone	Ext	_ Co	ntact Email	-				
Who should we contact with questions a	bout the application?		Customer		Contractor			
Primary Contact Informatio	n							
Contact Name			Title of Co	ontact				
Phone	Ext	_ Co	ntact Email					

INCENTIVE SUMMARY TABLE (THIS TABLE SELF-POPULATES FROM WORKSHEETS)

Incentive Category	Applied for Incentives	Applicable Self- Direct Incentives
Lighting		
HVAC		
Motors		
Motor Rewind		
Drives		
Compressed Air		
Refrigeration/Food Service		
Agriculture		
Miscellaneous		
Process Efficiency		
NC Lighting (SD Only)		
Total		

AEP Application Number AEP



CUSTOMER AGREEMENT

Application Agreement

By signing this document, I agree to program requirements outlined in the measure specifications, Terms and Conditions for the applicable program and Final Application Agreement. As an eligible customer, I verify the information is correct and request consideration for participation under this program. Furthermore, I concur that I meet all eligibility criteria in order to receive payment under this program.

Link to Efficient Products for Business/Process Efficiency Terms and Conditions, and Final Application Agreement Link to Self-Direct Terms and Conditions, and Final Application Agreement

Pre-Application Fi	inal-Application			
Project Completion Year (Sele	ect One)	Self-Direct		
Project Completion Date		Total Project Cost		
Date		Total Applied for Incentive		
Total Requested Incentive ¹		Total Self-Direct Requested Incentive ²		
Print Name		AEP Ohio Customer Signature		
Third Party Payment F	Release Authorization	(Optional, NOT APPLICABLE TO Self-Direct)		
Complete this section ONLY if	incentive payment is to be p	paid to an entity other than the AEP Ohio customer.		
Make checks payable to:	Company/Individual			
Mailing Address		CityState_OHZip		
Phone	_ Ext			
Taxpayer ID of 3rd Party	-	_ W-9 Tax Status		
receive the incentive payment from	om AEP Ohio. I also understan	ntive to the third party named above and understand that I will not and that my release of the payment to a third party does not exempt me ications, Terms and Conditions, and Final Application Agreement.		
Print Name	Date	Customer Signature (AEP Ohio Customer)		
SUB	MIT VIA EMAIL	PRINT APPLICATION		

Incentives have a threshold of 50% of the project cost and total incentives paid to a threshold of \$25,000 and Bid4Efficiency above that. ²Self-Direct incentives are 75% of Total Requested Incentive, after 50% of the project cost threshold and tiering is applied.





Title: COLD STORAGE 6 LAMP

Date: 23 Jul 2015

Description:

For: VAUGHN INDUSTRIES

By:

IES Filename: HBL654T5M.ies HBL-654T5-M-UNV-EBT2-U

Description: OPEN HIGH BAY LUMINAIRE WITH MATTE REFLECTOR.

MEDIUM

Luminaire

Number of Lamps:

6

Lamp Lumens:

4400

Luminaire Wattage:

343 W

1.00 Light Loss Factor (LLF):

Geometry

Length (X):

165 ft

Width (Y):

124 ft

Height (Z): 15

Workplane Height:

2.5 ft

ft

Suspension Length:

1,5 ft

0.777 Room Cavity Ratio:

Reflectance

Ceiling:

80 %

Walls:

50 %

Floor:

20 %

Eff. Cavity Refl. -- Ceiling :

78.3 %

Eff. Cavity Refl. -- Floor:

19.9 %

0.992 CU:

Results

Average Illuminance:

45

Number of Luminaires:

35

Lighting Power Density (LPD):

0.59

ft

ft

Luminaires:

fc

Layout

Rows

Columns

(Width)

(Length)

Grid Layout (size):

5

X

H

X

7

Grid Spacing:

24.80

X 23.57

Wall Spacing:

12.40

11.79

Spacing Criteria:

1.24

1.12

11.79 23.57



MOUNTING DATA

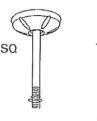
For unit or row installation, surface or suspended mounting.

Unit installation - Minimum of two hangers required.

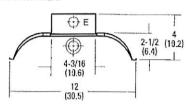
Row in stall attor — Two hangers per channel required. One per fixture plus one per row if CONLGC installed.

Hooker (HRC) and HC Hangers - Minimum two per channel (unit and row)

See ACCESSORIES below for hanging devices.

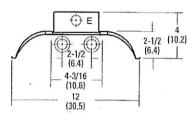






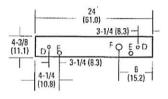
DIMENSIONS

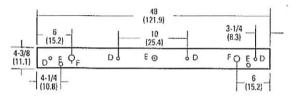
Inches (centimeters). Subject to change without notice.

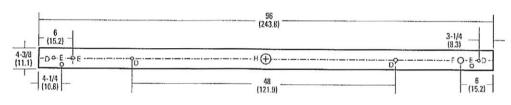


D = 11/16 (1.7) Dia.K.O. E = 7/8 (2.2) Dia.K.D. F = 1-1/8 (2.9) Dia.K.O.

H = 2 (5.1) Dia.K.O.







MICORES	ets are 6', black. Other configurations available, consult factory
Suffix	Description
CS1	Straight plug, 120V
CS3	Twist lock, 120V
CS7	Straight plug, 277V
CS11	Twist-lock, 277V
CS25	Twist-lock, 347V
C597	Twist-lock, 480V
CS93	600V SO cord, no plug

STATE PROPERTY FOR	and market his house.	attracellating the	AND PROPERTY	100 to 10	V CLASSICAL
LER.FL	ANNUAL ENERGY COST*	LAMP DESCRIPTION	LAMP	BALLAST FACTOR	WATTS
86.2	\$2.97	(2) T8 F32	2900	.88	55

PHOTOMETRICS

See www.lithonia.com.



An ScuityBrands Company

INDUSTRIAL:

One Lithonia Way Conyers, GA 30012 Phone: 800-315-4963 Fax: 770-981-8191 www.lithonia.com © 1996-2014 Acuity Brands Lighting, Inc. All rights reserved.

L

XTOR CROSSTOUR MAXX LED

POWER AND LUMENS BY FIXTURE MODEL



LED Information	XTOR5A	XTOR5ARL	XTOR5A-N	XTOR5ARL-N
Delivered Lumens	4,409	4,831	4,136	3,744
B.U.G. Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G2
CCT (Kelvin)	5000K	5000K	3500K	3500K
CRI (Color Rendering Index)	65	65	70	70
Power Consumption (Watts)	41W	41W	43W	42W

LED Information	XTOR9A	ARAGROTX	XTOR9A-N	XTOR9ARL-N
Delivered Lumens	7,079	7,367	6,468	6,036
B.U.G. Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G2
CCT (Kelvin)	5000K	5000K	3500K	3500K
CRI (Color Rendering Index)	65	65	70	70
Power Consumption (Watts)	79W	82W	79 W	81W

EGRESS Information	XTOR5A and XTOR9A Full Cutoff CBP Egress LED	XTOR5A and XTOR9A Refractive Lens CBP Egress LED
Delivered Lumens	509	468
B.U.G. Rating	N.A.	N.A.
CCT (Kelvin)	4000K	4000K
CRI (Color Rendering Index)	65	65
Power Consumption (Watts)	1.8W	1.8W

CURRENT DRAW

	Model Series			
Voltage	XTOR5A	XYOR9A	XTOR5A-CBP (Fixture/Battery)	XTOR9A-CBP (Fixture/Battery)
120V	0.35	0.67	0.60/0.25	0.92/0.25
208V	0.20	0.39		
240V	0.18	0.34		
277V	0.15	0.29	0.36/0.21	0,50/0.21
347V	0.14	0.26	••	••
480V	0.10	0.19		

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)	Theoretical L70 (Hours)
XTOR5A Mod	el	
25°C	> 92%	> 290,000
40°C	> 91%	> 290,000
50°C	> 89%	> 250,000
XTOR9A Mod	el	
25°C	> 91%	> 260,000
40°C	> 90%	> 230,000
50°C	> 82%	> 130,000



This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

5/31/2017 2:09:11 PM

in

Case No(s). 17-0991-EL-EEC

Summary: Application Vaughn Industries LLC and Ohio Power Company for approval of a special arrangement agreement with a mercantile customer electronically filed by Mr. Ryan F.M. Aguiar on behalf of Ohio Power Company