



**Case No.:** 20-1534-EL-EEC

**Mercantile Customer:** **GE Aircraft Engines**

**Electric Utility:** **Duke Energy**

**Program Title or** **GE Aviation - High Efficiency Chills**

**Description:**

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](mailto:ee-pdr@puc.state.oh.us).

## Section 1: Mercantile Customer Information

Name: **GE Aircraft Engines**

Principal address: **1 Neumann Way  
Cincinnati, OH 45215**

Address of facility for which this energy efficiency program applies:

**1 Neumann Way  
Cincinnati, OH 45215**

Name and telephone number for responses to questions:

**Megan Fox, (980) 373-1198**

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. (**Refer to Appendix A for 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)).

**Consolidation of several chiller plants into a single, centralized, chiller plant for the GE Aviation Campus in July 2018**

- ☐ 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):  
\_\_\_\_\_.
- ☐ 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: 813,298 kWh**  
**Refer to Appendix B for calculations and supporting document**

- 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: \_\_\_\_\_kWh

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: \_\_\_\_\_kWh

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## **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?

**The new equipment was installed in July 2019**

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

**15.5 kW**

**Refer to Appendix B for calculations and supporting documentation.**

## **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 **\$35,922. Refer to Appendix C for documentation.** (Rebate shall not exceed 50% project cost.

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 **8.73** (Skip to Subsection 2.) **Refer to Appendix D for calculations and supporting documents.**

### 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 **\$594,444**.

The utility's program costs were **\$32,133**.

The utility's incentive costs/rebate costs were **\$35,922**.

**Refer to Appendix D for calculations and supporting documents.**

## **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.

|                |      |                      |
|----------------|------|----------------------|
| Account number |      | 84500860             |
| Company Name   |      | GE Aircraft Engines  |
| Address 1      |      | 1 Neumann Way        |
| Address 2      |      | Cincinnati, OH 45215 |
| Date           | Days | Actual KWH           |
| 10/01/2019     | 30   | 13,466,800           |
| 09/03/2019     | 29   | 13,390,355           |
| 08/01/2019     | 32   | 14,858,397           |
| 06/06/2019     | 30   | 12,415,811           |
| 05/03/2019     | 32   | 11,835,672           |
| 04/02/2019     | 29   | 11,930,591           |
| 03/04/2019     | 29   | 12,206,580           |
| 02/01/2019     | 30   | 11,653,991           |
| 01/03/2019     | 33   | 12,710,309           |
| 12/03/2018     | 33   | 12,184,321           |
| 10/30/2018     | 29   | 11,501,982           |
| 10/01/2018     | 30   | 13,392,126           |
| <b>Total</b>   |      | <b>151,546,935</b>   |

Appendix B - GE Aviation Energy Savings Achieved

|         | Baseline Used   |            | Post Project Actual  |                                       | Savings    |                      |
|---------|---|------------|----------------------|---------------------------------------|------------|----------------------|
|         | Description   | Annual kWh | Summer Coincident kW | Description                           | Annual kWh | Summer Coincident kW |
| ECM - 1 | ASHRAE 90.1-2010 minimum efficiency of 0.570 kW/ton   | 3,800,236  | 1,135                | Installation of (5) 1000-ton chillers | 2,986,938  | 1,120                |
| Notes:  | Energy consumption baseline, demand baseline and post project energy consumption basis are outlined in the following pages.   |            |                      |                                       |            |                      |
|         | After consideration of line losses, total energy savings are <b>871,856 kWh</b> and <b>16.3 summer coincident kW</b> . These values may also reflect minor DSMore modeling software rounding error. |            |                      |                                       |            |                      |
|         |   |            |                      |                                       |            |                      |
|         |   |            |                      |                                       |            |                      |
|         |   |            |                      |                                       |            |                      |



Appendix C -Cash Rebate Calculation

GE Aviation

| Measure            | Quantity | Cash Rebate Rate  | Cash Rebate |
|--------------------|----------|---|-------------|
| Chillers (Qty - 5) | 1        | 50% of incentive that would be offered by the Smart \$aver Custom program | \$32,922    |
|                    |          |   | \$32,922    |

Appendix D -UCT Value

GE Aviation

| Measure                        | Total Avoided Cost | Program Cost | Incentive | Quantity | Measure UCT |
|--------------------------------|--------------------|--------------|-----------|----------|-------------|
| Chiller installation (Qty - 5) | \$594,444          | \$32,133     | \$35,922  | 1        | 8.73        |
| Totals                         | \$594,444          | \$32,133     | \$35,922  | 1        |             |

|                            |           |                           |      |
|----------------------------|-----------|---------------------------|------|
| Total Avoided Supply Costs | \$594,444 | Aggregate Application UCT | 8.73 |
| Total Program Costs        | \$32,133  |                           |      |
| Total Incentive            | \$35,922  |                           |      |



Smart Saver® Incentive Program

phone: 866.380.9580

fax: 980.373.9755

[customprocessing@duke-energy-energyefficiency.com](mailto:customprocessing@duke-energy-energyefficiency.com)

9/10/2020

Andy Long  
GE AIRCRAFT ENGINES - 8450086001  
1 NEUMANN WAY  
CINCINNATI OH 45215-1915

Subject: Your Application for a Duke Energy Mercantile Self-Direct Rebate CMO19-0000166576

Dear Andy Long,

Thank you for your Duke Energy Mercantile Self Direct rebate application. As noted in the Energy Conservation Measure (ECM) chart on page 2, a total rebate of \$35,922.00 has been proposed for your project completed in the 2019 calendar years. **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 2
- completing the PUCO-required affidavit on Page 3

Please return the documents to my attention via fax at 513.629.5572 or email to [customprocessing@duke-energy-energyefficiency.com](mailto:customprocessing@duke-energy-energyefficiency.com). Upon receipt, Duke Energy will submit the necessary documentation to PUCO. Following PUCO's approval, Duke Energy will remit payment.

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 Saver® incentives, when applicable. Please contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Taylor", written in a cursive, flowing style.

Andrew Taylor  
Program Manager  
Custom Incentives

cc: Teri Morris  
Kelly Rogers





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

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☒ Rebate is accepted.

☐ Rebate is declined.

By accepting this rebate, GE AIRCRAFT ENGINES - 8450086001 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, GE AIRCRAFT ENGINES - 8450086001 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, GE AIRCRAFT ENGINES - 8450086001 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

 Andrew Long

Customer Signature

Andrew Long

Printed Name

9/11/2020

Date



### Proposed Rebate Amounts

| Measure ID | Energy Conservation Measure           | Proposed Rebate Amount      |
|------------|---------------------------------------|-----------------------------|
| ECM-1      | GE Aviation - High Efficiency Chillrs | \$35,922.00 per project X 1 |
|            | Total                                 | <b>\$35,922.00</b>          |



# Public Utilities Commission

(Mercantile Customers Only)

## Application to Commit Energy Efficiency/Peak Demand Reduction Programs

Case No.: \_\_\_\_ - \_\_\_\_ 20-1534-EL-EEC

State of Ohio :

Andrew Long, Affiant, being duly sworn according to law, deposes and says that:

1. I am the duly authorized representative of:

GE Aircraft Engines

[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.

Andrew Long Engineering Manager  
SIGNATURE OF AFFIANT & TITLE

Sworn and subscribed before me this 11<sup>th</sup> day of September, 2020  
DAY MONTH YEAR

[Signature]  
SIGNATURE OF OFFICIAL ADMINISTERING OATH

Greg Yerkes - GECU Relationship Consultant  
PRINT NAME AND TITLE  
Ohio Notary

My commission expires on 6/17/24  
DATE



**GREG YERKES**  
Notary Public, State of Ohio  
My Commission Expires  
June 17, 2024



# Mercantile Self Direct Nonresidential Custom Rebate Application PART 1



## Ohio Mercantile Self Direct Program

Application Guide and Cover Sheet

Questions? Call 866.380.9580 or visit [duke-energy.com](http://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](mailto:SelfDirect@Duke-Energy.com). You may also fax to 513.629.5572.

Mercantile customers, defined as using at least 700,000 kilowatt-hours (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 |
|----------------|--------------|----------------|--------------|
| 840-0860-01-3  | 149,306,388  |                |              |
|                |              |                |              |
|                |              |                |              |
|                |              |                |              |

Self Direct rebates are available for completed Custom projects that have not previously received a Duke Energy Smart Saver® Custom Incentive. 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/inclusion of the following program requirements:

|  |  |  |   |
|--|--|--|---|
| <input checked="" type="checkbox"/> All sections of appropriate application(s) are completed | <input checked="" type="checkbox"/> Proof of payment.* | <input checked="" type="checkbox"/> Manufacturer's Spec sheets | <input checked="" type="checkbox"/> Energy model/calculations and detailed inputs for Custom applications |
|--|--|--|---|

\*If a single payment record is intended to demonstrate the costs of both Prescriptive and Custom projects, please include an additional document with an estimated breakout of costs for each Prescriptive and Custom energy conservation measure.

# Mercantile Self Direct Nonresidential Custom Rebate Application PART 1



**\*\*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 and Cooling and Window Films, Programmable Thermostats, and Guest Room Energy Management Systems | <input type="checkbox"/> ENERGY STAR® Window/Sleeve/Room AC<br><input type="checkbox"/> Central Air Unit   | <input type="checkbox"/> Air Source Heat Pump Water Heater |
|  | <input type="checkbox"/> Setback/Programmable Thermostat<br><input type="checkbox"/> Guestroom Energy Management Control   | <input type="checkbox"/> Window Film                       |
| Chillers   | <input type="checkbox"/> Air Cooled Chiller  | <input checked="" type="checkbox"/> Water Cooled Chiller   |
| Motors, Pumps and Variable Frequency Drives (VFDs)   | <input type="checkbox"/> VFD – applied to Process Pump<br><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<br><input type="checkbox"/> Night Covers for Display<br><input type="checkbox"/> ECM Cooler, Freezer, and Display Case Motors<br><input type="checkbox"/> ENERGY STAR Solid or Glass Door Reach-in Freezer or Refrigerator |  |
| Process Equipment  | <input type="checkbox"/> Engineered Nozzle – Compressed Air<br><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 Nonresidential Custom Rebate Application PART 1**



Proposed energy efficiency measures may be eligible for Self Direct Custom rebates if they clearly reduce electrical consumption and/or demand as compared to the appropriate baseline.

Before you complete this application, please note the following important criteria:

- Submitting this application does not guarantee a rebate will be approved.
- Rebates are based on electricity conservation only.
- Electric demand and/or energy reductions must be well documented with auditable calculations.
- Incomplete applications cannot be reviewed; all fields are required.

Refer to the complete list of Instructions and Disclaimers, beginning on page 6.

## **Notes on the Application Process**

If you have any questions concerning how to complete any portion of the application or what supplementary information is required, please contact your Duke Energy Ohio, Inc. account manager or the Duke Energy Self Direct team at 866.380.9580.

Every application must include calculations of the baseline electrical usage and the electrical usage of the proposed high-efficiency equipment/system. These calculations are performed and submitted by the Duke Energy Ohio customer, or your designated equipment vendor / engineer. Application Part 2 worksheets and page 6 of this application contain additional guidance on acceptable calculations. *Complex or unique projects may require the use, at the applicant's expense, of modeling software.* Please contact the Duke Energy Self Direct team with questions about these requirements.

If you do not receive an acknowledgement email within 1 day of submitting an application via online, email, or fax, please call 866.380.9580. The acknowledgement email will provide with an estimated response time based on an initial assessment of your application. The application review may include some communication to resolve any questions about the project or to request additional information. Applications that are received complete without missing information have a faster review time.

There are two ways to submit your completed application form and excel worksheets.

Email: Complete, sign, scan and send this application form and attachments to:  
[SelfDirect@duke-energy.com](mailto:SelfDirect@duke-energy.com) (note attachment size limit is applicable)

Fax: 513.629.5572



# Mercantile Self Direct Nonresidential Custom Rebate Application PART 1



## 1. Contact Information (Required)

| Duke Energy Customer Contact Information <sup>1</sup> |                     |              |              |          |       |
|---|---------------------|--------------|--------------|----------|-------|
| Company Name (as it appears on your bill)             | GE Aircraft Engines |              |              |          |       |
| Address   | 1 Neumann Way       |              |              |          |       |
| City  | Cincinnati          | State        | OH           | ZIP Code | 45215 |
| Project Contact                                       | Andy Long           |              |              |          |       |
| Office Phone  |                     | Mobile Phone | 513-582-4952 |          |       |
| Email Address   | andrew1.long@ge.com |              |              |          |       |

| Equipment Vendor / Contractor / Architect / Engineer Contact Information |                               |              |              |          |       |
|--|-------------------------------|--------------|--------------|----------|-------|
| Company Name   | Energy Management Solutions   |              |              |          |       |
| Address  | 684 Excelsior Blvd, Suite 200 |              |              |          |       |
| City   | Excelsior                     | State        | MN           | ZIP Code | 55331 |
| Project Contact  | Kelly Rogers                  |              |              |          |       |
| Office Phone   |                               | Mobile Phone | 952-767-7450 |          |       |
| Email Address  | KRogers@emsenergy.com         |              |              |          |       |

|   |            |
|---|------------|
| Who is the primary point of contact for technical questions? <sup>2</sup> | Contractor |
|---|------------|

| Payment Information  |  |       |  |            |  |
|--|--|-------|--|------------|--|
| If an incentive is awarded, who should receive payment? <sup>3</sup>   |  |       |  |            |  |
| <input checked="" type="checkbox"/> Customer <input type="checkbox"/> Vendor* (customer or customer's agent <sup>4</sup> must sign below)                    |  |       |  |            |  |
| *If the payee is the vendor, they must issue a credit in the amount of the incentive to the customer on the invoice and include it with the payment request. |  |       |  |            |  |
| Tax ID Number for Payee (provide W-9)  |  |       |  | 14-0689340 |  |
| Mailing Address for Payee (if different from above)  |  |       |  |            |  |
| Street   |  |       |  |            |  |
| City   |  | State |  | ZIP Code   |  |

<sup>1</sup> Provided customer information should match the Duke Energy customer of record and W-9 form provided with this application. If the customer entity is a business affiliate of the Duke Energy customer of record, documentation must be provided that demonstrates the business affiliation.

<sup>2</sup> Note that if the vendor is the primary point of contact, the customer will still be copied on all application correspondence. If the customer does not wish to be copied, the customer must provide a signed letter of authorization on customer letterhead indicating an entity is acting as an agent for the customer. Duke Energy does not act as an agent.

<sup>3</sup> If payment is to be made to an entity other than the Duke Energy account holder or the vendor, a payment waiver is required and will be provided for customer signature.

<sup>4</sup> If an outside agent is acting on behalf of the Duke Energy customer of record, a letter of authorization on customer letterhead and signed by an authorized employee of the customer must be provided.

**Mercantile Self Direct  
Nonresidential Custom Rebate Application  
PART 1**



**2. Project Information (Required)**

A. Please indicate project type:

- ☐ New construction
- ☐ Expansion at an existing facility (existing Duke Energy account number)
- ☐ Replacing equipment due to equipment failure
- ☐ Replacing equipment that is estimated to have remaining useful life of two years or less
- ☒ Replacing equipment that is estimated to have remaining useful life of more than two years
- ☐ Behavioral, operational and/or procedural programs/projects

B. Please describe your project, or attach a detailed project description that describes the project.

GE Aviation installed multiple large Chillers in a new North Utility Plant (NUP) that serves multiple buildings as a centralized chiller plant. This is a much more efficient cooling method than the existing units in each building.

C. When did you start and complete implementation?

Start date / (mm/yyyy)      End date / (mm/yyyy)  
01/19                                  07/19

D. Are you also applying for Self Direct Prescriptive rebates and, if so, which one(s)<sup>5</sup>?

No

E. Please indicate which worksheet(s) you are submitting for this application (check all that apply):

- ☐ Lighting
- ☐ Variable Frequency Drive (VFD)
- ☐ Compressed Air
- ☐ Energy Management System (EMS)
- ☒ General (for projects not easily submitted using one of the above worksheets)

F. List all assumptions about the baseline and proposed equipment energy use and operation schedule, or attach a document listing that information. Attach specification sheets for all proposed new equipment.

G. Attach a supplier or contractor invoice(s) and/or other equivalent information documenting the Implementation Cost for each project listed in your application.

Does the Implementation Cost include any internal labor<sup>6</sup>?

If yes, please specify which costs are internal labor.

---

<sup>5</sup> If your project involves some equipment that is eligible for prescriptive rebates and some equipment that is likely eligible for custom rebates, and if it is feasible to separate the equipment for the energy analysis, then the equipment will be evaluated separately. If it is not feasible to separate the equipment for analysis, then the equipment will be evaluated together in the custom application.

<sup>6</sup> Internal labor costs cannot be counted in the Incremental Project Cost for purposes of analysis.



**Mercantile Self Direct  
Nonresidential Custom Rebate Application  
PART 1**



**3. Attestation, Terms and Conditions, and Signature (Required)**

**Attestation**

By signing below, I agree to the following:

I, **(INSERT NAME)** Andrew Long, do hereby consent to Duke Energy Ohio, Inc. disclosing my Duke Energy Ohio, Inc. Account Number and Federal Tax ID Number to its subcontractors solely for the purpose of administering Duke Energy Ohio's Mercantile Self Direct Program. I understand that such subcontractors are contractually bound to otherwise maintain my Duke Energy Ohio Inc. Account Number and Federal Tax ID Number in the strictest of confidence.

I have read and agree to the below Terms and Conditions of the Duke Energy Ohio's Mercantile Self Direct Program.

I certify that I meet the eligibility requirements of the Duke Energy Ohio's Mercantile Self Direct Program, as applicable, and that all information provided within my application is correct to the best of my knowledge.

I certify that the taxpayer identification number provided in my application is current and correct. I am not subject to backup withholding because: (a) I am exempt from backup withholding; or (b) I have not been notified by the 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. I am a U.S. citizen (includes a U.S. resident alien).

**Instructions/Terms/Conditions**

Note: Please keep for your records

1. Energy service companies or contractors may assist in preparing the application, but an authorized representative of the customer must sign this application to be eligible to participate in the Mercantile Self Direct Program. Completion of this application does not guarantee the approval of a Self Direct Custom Rebate.
2. Once all documentation requested in this application is received by *Duke Energy Ohio, Inc.*, and any follow-up information requested by *Duke Energy* is received, the rebate amount for each Energy Conservation Measure (ECM) will be communicated to the customer. The rebate amount will be based on ECM energy savings and ECM incremental installation cost.
3. All rebates require approval by the Public Utilities Commission of Ohio (PUCO). *Duke Energy Ohio, Inc.* will submit an application for rebate on the customer's behalf upon customer attestation to program terms, conditions and requirements as outlined in the rebate offer letter and upon customer completion of attestation documents required by the Public Utilities Commission of Ohio.

## **Mercantile Self Direct Nonresidential Custom Rebate Application PART 1**



4. *Duke Energy Ohio, Inc.* will issue a Self Direct Custom Rebate check, based on the approved rebate amount for each ECM, upon receiving approval from the PUCO. *Duke Energy Ohio, Inc.* does not guarantee PUCO approval.
5. With the application, the customer must provide a list of all sites where the ECMs were installed. *Duke Energy Ohio, Inc.* requests that sites of similar size, hours of operation and energy consuming characteristics be grouped together in one application for the determination of the rebate amount. The application should identify the site where each unique ECM was installed.
6. Based on the information submitted with the application and the information gathered both before and after the initial installation of the ECM, *Duke Energy Ohio, Inc.* will calculate the rebate amount for each ECM.
7. *Duke Energy Ohio, Inc.* may conduct random site inspections of a sample of the locations where the ECMs are installed to verify installation and operability of the ECMs and to obtain information needed to calculate the Approved Rebate Amount.
8. Customers are encouraged to retain copies of all forms, invoices and supporting documentation for their records.
9. Approved rebates are valid for six months from the date communicated to the customer by *Duke Energy Ohio, Inc.*, subject to the expiration of measure eligibility based on project completion dates and application submission deadlines as defined by PUCO. Customers are encouraged to execute their rebate offer contracts and PUCO-required affidavits promptly to ensure eligibility is not forfeited.
10. *Duke Energy Ohio, Inc.* reserves the right to recover all unrecoverable costs associated with the project approval if the customer decides not to execute the rebate contract, after the project is approved by *Duke Energy Ohio, Inc.*
11. Projects financially supported by other funding sources will be evaluated on a case-by-case basis for potential partial funding from *Duke Energy Ohio, Inc.*
12. Participants must be *Duke Energy Ohio, Inc.* nonresidential, mercantile customers with the project sites in the *Duke Energy Ohio, Inc.* service territory.
13. Customers or trade allies may not use any *Duke Energy* logo without prior written permission.
14. Only trade allies registered with *Duke Energy* are eligible to participate.
15. All equipment must be new. Used or rebuilt equipment is not eligible for rebates. All old existing equipment must be removed on retrofit projects.
16. Unless used for decorative purposes only, all LED lighting products must be present on a current Design Lights Consortium (DLC) or Energy Star qualified product list.



**Mercantile Self Direct  
Nonresidential Custom Rebate Application  
PART 1**

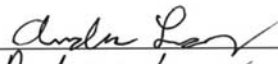


**17. Disclaimers: *Duke Energy Ohio, Inc.***

- a. does not endorse any particular manufacturer, product or system design within the program;
- b. will not be responsible for any tax liability imposed on the customer as a result of the payment of rebates;
- c. does not expressly or implicitly warrant the performance of installed equipment (contact your contractor for details regarding equipment warranties);
- d. is not responsible for the proper disposal/recycling of any waste generated or obsolete or old equipment as a result of this project;
- e. 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; and
- f. reserves the right to change or discontinue this program at any time. The acceptance of program applications is determined solely by *Duke Energy Ohio, Inc.*

**CUSTOMER SIGNATURE REQUIRED**

By signing below, I certify that I have read and agree to the above Mercantile Self Direct Attestation and Terms and Conditions.

|                    |   |      |           |
|--------------------|---|------|-----------|
| Customer Signature |  |      |           |
| Print Name         | Andrew Long   | Date | 11/2/2019 |

**SIGN HERE**

**TRADE ALLY SIGNATURE (REQUIRED ONLY IF TRADE ALLY IS PAYEE)**

By signing below, I certify that I have read and agree to the above Mercantile Self Direct Attestation and Terms and Conditions.

|                      |  |      |  |
|----------------------|--|------|--|
| Trade Ally Signature |  |      |  |
| Print Name           |  | Date |  |

**CUSTOMER – AUTHORIZATION TO DESIGNATE TRADE ALLY AS PAYEE**

If an incentive is awarded and the customer would like to authorize payment to the trade ally, the customer must sign below to allow release of their incentive to the trade ally.

Required: Final invoice from trade ally to customer must show the incentive credited to the customer. If the itemized invoice does not reflect a deduction of the incentive amount, the payee will be changed to the customer.

|                    |  |      |  |
|--------------------|--|------|--|
| Customer Signature |  |      |  |
| Print Name         |  | Date |  |



List of Sites (Required)



# Equipment Submittal For Approval

## Project:

**GE AVIATION – EVENDALE  
BUILDING 451  
NORTH UTILITY PLANT**

**YORK YMC<sup>2</sup> MAGNETIC CENTRIFUGAL CHILLER (TAG: CH-3, 4, & 5)**



## SUBMITTED TO:

**Brian Beckman  
1 Neumann Way  
Mail Drop D59  
Cincinnati, Ohio 45215**

## DATE:

**June 25 2016**

## SUBMITTED BY:

---

**SCOTT MARGESON**  
**SYSTEMS APPLICATION ENGINEER**  
JOHNSON CONTROLS  
7863 PALACE DRIVE  
CINCINNATI, OHIO 45249  
(513) 630-7853



# **TABLE OF CONTENTS**

- **Submittal Summary**
- **Submittal Notes**
- **Performance Specification**
- **Product Drawing**
- **Wiring Diagram**
- **Points List**
- **Unit Specification**
- **Rigging & Installation Instructions**
- **Installation Checklist & Start-Up Request**
- **Warranties**
- **Operation & Maintenance**

# **Submittal Summary**

## **YORK YMC<sup>2</sup> MAGNETIC CENTRIFUGAL CHILLER**

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### **Items Included by Johnson Controls**

- Motor, 460 volts, 3 phase, 60 Hz
  - Motor Enclosure: Hermetically Sealed
- **Inverted Performance Technology**
- Variable Speed Drive, factory mounted and wired. NEMA 1
- Single Compressor
- Isolation Valves
- Evaporator: 2- Pass
  - Hinged Marine Water Boxes, rated for 150 psig water-side pressure.
  - Victaulic Connection.
  - Water Box Hinges
  - Factory Thermal Insulation for Evaporator 3/4" inches. Insulation finish to match chiller finish.
  - Flow Sensors, factory mounted and wired.
- Condenser: 2 - Pass
  - Hinged Marine Water Boxes, rated for 150 psig water-side pressure.
  - Victaulic Connection.
  - Water Box Hinges
  - Flow Sensors, factory mounted and wired.
- Unit Warranty: 10 Year Parts Warranty including Refrigerant
- Chiller Start up (PCAT) and 40hr Training
- Factory Chiller Testing
- Additional Waterbox Gasket Seals for both Evaporator and Condenser water boxes per chiller.
- Service Isolation Valves
- BACnet MS/TP Card for TAC Interface
- Optiview control panel (graphical interface/controller at unit)
- Optimization software included
- Assistance in Duke Rebate application process

### **Items Included but INSTALLED BY OTHERS**

- 1" Thick Neoprene Pad

### **Items NOT Included**

- Refrigerant monitor or SCBA
- Rigging, hauling, or providing access for equipment.
- Valves for vents and drains
- Pressure gauges for chilled water lines
- Relief piping to the atmosphere.
- Disassembly / Reassembly of chiller if required for installation.
- Coordination drawings of central plant.
- Occupancy adjustments after completion of York chiller start-up
- Piping and Wiring
- Evaporator Flow/Differential Pressure Switch
- Condenser Flow/Differential Pressure Switch

## **Submittal Notes**

- Evaporator and Condenser Nozzles for CH-451-3, 4 & 5 are currently selected as Right Hand Connection (See Unit Drawing). Please confirm handing connections as right hand or left hand.
- Pressure relief valves included.
- One quart of paint to match chiller included.
- Warranty and training included per plans and specs.

# **PERFORMANCE** **SPECIFICATION**



## YMC<sup>2</sup> CHILLER PERFORMANCE SPECIFICATION

| Unit Tag            | Qty      | Model No.                 |  | Net Capacity<br>(tons) | Power             | Refrigerant   |
|---------------------|----------|---------------------------|--|------------------------|-------------------|---------------|
| <b>CH-451-3-4-5</b> | <b>3</b> | <b>YMC2-S3517A<br/>BS</b> |  | <b>1000</b>            | <b>460/3/60.0</b> | <b>R-134A</b> |

| Unit Data                                     | Evaporator                           | Condenser                        |
|---|--------------------------------------|----------------------------------|
| Compressor Model: M6C-331FAC                  | Model: EC3914-371-CS1-2GMR           | Model: CB3914-260-BS1-2GMR       |
| EWT (°F):                                     | 54.20                                | 85.00                            |
| LWT (°F):                                     | 43.00                                | 94.09                            |
| Flow Rate (gpm):                              | 2135                                 | 3100                             |
| Pressure Drop (ft):                           | 21.9                                 | 26.5                             |
| Fluid Type (%):                               | WATER                                | WATER                            |
| Circuit No. of Passes:                        | 2                                    | 2                                |
| Fouling Factor (ft <sup>2</sup> °F hr / Btu): | 0.000100                             | 0.000250                         |
| Tube No. / Description:                       | 371 - 0.025" Turbo-ESP Copper (3/4") | 260 - 0.025" CSL Enhanced Copper |
| Design Working Pressure (psig):               | 150                                  | 150                              |
| Entering Water Nozzle @ Location:             | R                                    | R                                |
| Leaving Water Nozzle @ Location:              | R                                    | R                                |
| Water Box Weight, ea (lb)(1):                 | 651                                  | 651                              |
| Cover Plate Weight , ea (lb):                 | 481                                  | 481                              |
| Return Head Weight (lb):                      | 215                                  | 271                              |
| Water Weight (lb):                            | 2745                                 | 2734                             |
| Water Volume(gal):                            | 330                                  | 328                              |

| Performance Data  |        | Electrical Data                 |      | Other                 |       |
|-------------------|--------|---------------------------------|------|-----------------------|-------|
| Job KW:           | 574.0  | Job FLA:                        | 753  | Operating Wt. (lb):   | 35398 |
| KW/Ton.R:         | 0.5740 | Min Circuit Ampacity<br>(Amps): | 942  | Per Isolator (lb):    | 8850  |
| NPLV.IP:          | 0.3190 | Max Fuse/Breaker:               | 1600 | Refrigerant Wt. (lb): | 1710  |
|                   |        |                                 |      | Compressor Wt. (lb):  | 4400  |
| Isolation Valves: | YES    |                                 |      | Ship Wt (lb):         | 29953 |
|                   |        |                                 |      |                       |       |
|                   |        | Type Starter: VSD w/ filter     |      |                       |       |
|                   |        | VSD Model: HYP1278XHC30B-46A    |      |                       |       |
|                   |        |                                 |      |                       |       |

Notes:

(1) Not including cover plate on marine water boxes.





## YMC<sup>2</sup> CHILLER PERFORMANCE SPECIFICATION

**AHRI Message:**

Certified in accordance with the AHRI Water-Cooled Water Chilling and Heat Pump Water-Heating Packages Using Vapor Compressor Cycle Certification Program, which is based on AHRI Standard 550/590 (I-P) and AHRI 551/591 (SI). Certified units may be found in the AHRI Directory at [www.ahridirectory.org](http://www.ahridirectory.org).



**Special Quote Notes:**



**Project:**  
**Unit Tag:**  
**Engineer:**  
**Customer:**

**Rating Program:** XEngine 1.0.6675  
**Software Version:** YW 18.02  
**Date:** 04/30/2018 15:26:29

### SALES REPORT

| Unit Specifications           |                     |                          |            |
|-------------------------------|---------------------|--------------------------|------------|
| Model                         | YMC2-S3517AB        | Refrigerant              | R134a      |
| Specified Net Capacity (Tons) | 1000                | Refrigerant Charge (lb)  | 2162       |
| Rated Net Capacity (Tons)     | 1000                | Variable Orifice         | V3         |
| Full Load (kW/Ton.R)          | 0.5742              | Isolation Valve          | Y          |
| NPLV.IP (kW/Ton.R)            | 0.3189              | OptiSound Control        | Y          |
| Input Power (kW)              | 574.2               | Voltage / Hz             | 460 / 60.0 |
| Starter Type                  | HYP1278XHC***-46A   | FLA (Amps)               | 754        |
| Compressor                    | M6C-331FAC          | A-Weighted SPL (dBA)     | 82         |
| Evaporator                    | EC3914-371-CS*-2*** | Min Circuit Ampacity     | 943        |
| Condenser                     | CB3914-260-BS*-2*** | Max Circuit Breaker Amps | 1600       |

|   | Evaporator | Condenser |
|---|------------|-----------|
| Fluid                                       | Water*     | Water*    |
| Tube MTI No.                                | 371        | 260 / 260 |
| Passes                                      | 2*         | 2*        |
| Fouling Factor (hr-ft <sup>2</sup> -°F/Btu) | 0.000100*  | 0.000250* |
| Entering Fluid Temp (°F)                    | 54.20      | 85.00*    |
| Leaving Fluid Temp (°F)                     | 43.00*     | 94.09     |
| Fluid Flow (gpm)                            | 2135*      | 3100*     |
| Fluid Pressure Drop (ft H2O)                | 22.3       | 26.5      |

(\*) Designates User Specified Input

Certified in accordance with the AHRI Water-Cooled Water Chilling and Heat Pump Water-Heating Packages Using Vapor Compressor Cycle Certification Program, which is based on AHRI Standard 550/590 (I-P) and AHRI 551/591 (SI). Certified units may be found in the AHRI Directory at [www.ahridirectory.org](http://www.ahridirectory.org). Auxiliary components included in total kW: Chiller Controls.

Compliant with ASHRAE 90.1-2004.  
 Compliant with ASHRAE 90.1-2007.  
 Compliant with ASHRAE 90.1-2010.  
 Compliant with ASHRAE 90.1-2013.  
 Compliant with ASHRAE 90.1-2016.

Compliant with the requirements of the LEED Energy and Atmosphere Enhanced Refrigerant Management Credit (EAc4).

Materials and construction per mechanical specifications - Form 160.84-EG1.

Auxiliary components included in total kW - Chiller controls.





**Project:**  
**Unit Tag:**  
**Engineer:**  
**Customer:**

**Rating Program:** XEngine 1.0.6675  
**Software Version:** YW 18.02  
**Date:** 04/30/2018 15:26:29

| Partload Data (Minimum Condenser Water Temperature) |        |        |        |        |        |        |        |        |        |        |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| CEFT (°F)   | % LOAD |        |        |        |        |        |        |        |        |        |
|   | 100%   | 90%    | 80%    | 70%    | 60%    | 50%    | 40%    | 30%    | 20%    | 10%    |
| 85.00°  | 0.5742 | 0.5440 | 0.5216 | 0.5039 | 0.5009 | 0.5051 | 0.5202 | 0.5531 | 0.6623 | -      |
| 80.00°  | 0.5206 | 0.4903 | 0.4671 | 0.4495 | 0.4405 | 0.4366 | 0.4435 | 0.4691 | 0.5541 | 0.9565 |
| 75.00°  | 0.4711 | 0.4434 | 0.4166 | 0.3969 | 0.3838 | 0.3784 | 0.3828 | 0.4023 | 0.4615 | 0.7893 |
| 70.00°  | 0.4270 | 0.3966 | 0.3694 | 0.3488 | 0.3325 | 0.3224 | 0.3230 | 0.3360 | 0.3780 | 0.6239 |
| 65.00°  | 0.3840 | 0.3532 | 0.3265 | 0.3048 | 0.2853 | 0.2711 | 0.2676 | 0.2737 | 0.2971 | 0.4771 |
| 60.00°  | 0.3475 | 0.3141 | 0.2868 | 0.2632 | 0.2414 | 0.2244 | 0.2182 | 0.2197 | 0.2368 | 0.3105 |
| 55.00°  | 0.3145 | 0.2775 | 0.2494 | 0.2251 | 0.1996 | 0.1815 | 0.1710 | 0.1690 | 0.1778 | 0.2260 |
| 50.00°  | 0.2786 | 0.2447 | 0.2162 | 0.1868 | 0.1628 | 0.1418 | 0.1269 | 0.1354 | 0.1505 | 0.1773 |
| 45.00°  | 0.2577 | 0.2244 | 0.1974 | 0.1675 | 0.1336 | 0.1040 | 0.1113 | 0.1240 | 0.1502 | 0.2216 |
| 40.00°  | 0.2544 | 0.2242 | 0.1993 | 0.1691 | 0.1373 | 0.1082 | 0.1139 | 0.1268 | 0.1975 | 0.3206 |
| 39.00°  | 0.2510 | 0.2213 | 0.1966 | 0.1684 | 0.1377 | 0.1075 | 0.1130 | 0.1255 | 0.1955 | 0.3198 |
| 38.00°  | 0.2475 | 0.2181 | 0.1955 | 0.1684 | 0.1383 | 0.1068 | 0.1120 | 0.1236 | 0.1934 | 0.3189 |
| 37.00°  | 0.2438 | 0.2170 | 0.1950 | 0.1684 | 0.1389 | 0.1060 | 0.1112 | 0.1217 | 0.1913 | 0.3180 |
| 36.00°  | 0.2430 | 0.2167 | 0.1947 | 0.1687 | 0.1393 | 0.1051 | 0.1109 | 0.1208 | 0.1891 | 0.3171 |
| *Values are in kW/Ton.R                             |        |        |        |        |        |        |        |        |        |        |

Certified in accordance with the AHRI Water-Cooled Water Chilling and Heat Pump Water-Heating Packages Using Vapor Compressor Cycle Certification Program, which is based on AHRI Standard 550/590 (I-P) and AHRI 551/591 (SI). Certified units may be found in the AHRI Directory at [www.ahridirectory.org](http://www.ahridirectory.org). Auxiliary components included in total kW: Chiller Controls.

Compliant with ASHRAE 90.1-2004.  
 Compliant with ASHRAE 90.1-2007.  
 Compliant with ASHRAE 90.1-2010.  
 Compliant with ASHRAE 90.1-2013.  
 Compliant with ASHRAE 90.1-2016.

Compliant with the requirements of the LEED Energy and Atmosphere Enhanced Refrigerant Management Credit (EAc4).

Materials and construction per mechanical specifications - Form 160.84-EG1.

Auxiliary components included in total kW - Chiller controls.





# APPLICATION AND CERTIFICATE FOR PAYMENT

TO (OWNER): CH2MHILL ENGINEERS, INC  
One Neumann Way MD D9  
Cincinnati, OH 45215

PROJECT: GE Evendale North Utility Plant MEP APPLICATION NO: 21609-14 Distribution to:  
☐ OWNER  
☐ ARCHITECT  
☐ CONTRACTOR

Evendale, OH 45215 PERIOD TO: 9-30-17

FROM (CONTRACTOR): MONARCH CONSTRUCTION COMPANY  
PO BOX 631100  
CINCINNATI OH 45263-1100

CONTRACT FOR: General Construction

## CONTRACTOR'S APPLICATION FOR PAYMENT

| CHANGE ORDER SUMMARY                               |               |          | DEDUCTIONS   |
|--|---------------|----------|--------------|
| Change Orders approved in previous months by Owner |               |          | 18,279.00    |
| TOTAL  |               |          | 7,527,459.25 |
| Approved this month                                |               |          |              |
| Number   | Date Approved |          |              |
| 42   | Sep-17        | 3,934.00 |              |
| 43   | Sep-17        | 1,169.00 |              |
| Totals   |               |          | 7,532,562.25 |
| Net change by Change Orders                        |               |          | 7,514,283.25 |

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

CONTRACTOR: MONARCH CONSTRUCTION COMPANY

By: Wendy Taylor Date: 9/29/17  
Wendy Taylor, Controller

## ARCHITECT'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising the above application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

By: Date:

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payments are without prejudice to any rights of the Owner or Contractor under this Contract.

Application is made for Payment, as shown below, in connection with the Contract.

Continuation Sheet, AIA Document G703, is attached.

1. ORIGINAL CONTRACT SUM..... \$ 5,842,390.00  
2. Net change by Change Orders..... \$ 7,514,283.25  
3. CONTRACT SUM TO DATE (Line 1 +/- 2)..... \$ 13,356,673.25  
4. TOTAL COMPLETED & STORED TO DATE..... \$ 13,356,673.25  
(Column G on G703)

5. RETAINAGE:

a. Retainage 10% \$ 1,335,667.33

b. Retainage for stored material \$ -

c. Amount withheld \$ -

Total Retainage (Line 5a + 5b or

Total in Column I of G703) \$ 1,335,667.33

6. TOTAL EARNED LESS RETAINAGE..... \$ 12,021,005.92  
(Line 4 less Line 5 Total)

7. LESS PREVIOUS CERTIFICATES FOR

PAYMENT (Line 6 from prior Certificate)..... \$ 12,016,413.22

8. CURRENT PAYMENT DUE..... \$ 4,592.70

9. BALANCE TO FINISH, PLUS RETAINAGE..... \$ 1,335,667.33  
(Line 3 less Line 6)

State of: Ohio County of Hamilton

Subscribed and sworn to before me this 29th day of August, 2017.

Notary Public: LINDSEY BUTLER

Notary Public, State of Ohio

My Commission Expires 06-26-2022

My Commission expires:

AMOUNT CERTIFIED..... \$

(Attach explanation if amount certified differs from the amount applied for.)

ARCHITECT:



| A           | B                                      | C                  | D  | E           | F                           | G  | (G ÷ C)<br>% | H                    | I                  |
|-------------|--|--------------------|--|-------------|-----------------------------|--|--------------|----------------------|--------------------|
| Item<br>No. | Description of Work                    | Scheduled<br>Value | WORK COMPLETED                             |             | Other<br>(Not In D<br>or E) | Total<br>Completed<br>to Date<br>(Describe Below)<br>(D+E+F) |              | Balance to<br>Finish | Retainage<br>Ten % |
|             |  |                    | From<br>Previous<br>Application<br>(D + E) | This Period |                             |  |              |                      |                    |
|             | General Conditions                     |                    |  |             |                             |  |              |                      |                    |
| 1           | Mobilization/Demobilization            | 12,000.00          | 12,000.00                                  |             |                             | 12,000.00  | 100%         |                      | 1,200.00           |
| 2           | General Conditions                     | 172,000.00         | 172,000.00                                 |             |                             | 172,000.00   | 100%         |                      | 17,200.00          |
| 3           | MEP PM & Badging                       |                    |  |             |                             |  |              |                      |                    |
| 4           | Safety and Security Requirements       | 28,000.00          | 28,000.00                                  |             |                             | 28,000.00  | 100%         |                      | 2,800.00           |
| 5           | SWPPP                                  | 1,200.00           | 1,200.00                                   |             |                             | 1,200.00   | 100%         |                      | 120.00             |
| 6           | Insurance                              | 28,000.00          | 28,000.00                                  |             |                             | 28,000.00  | 100%         |                      | 2,800.00           |
| 7           | Builders Risk Insurance                | 8,000.00           | 8,000.00                                   |             |                             | 8,000.00   | 100%         |                      | 800.00             |
| 8           | Project Closeout                       |                    |  |             |                             |  |              |                      |                    |
| 9           | Equipment Trucking                     |                    |  |             |                             |  |              |                      |                    |
| 10          | 3D BIM Coordination                    | 356,000.00         | 356,000.00                                 |             |                             | 356,000.00   | 100%         |                      | 35,600.00          |
|             | HVAC                                   |                    |  |             |                             |  |              |                      |                    |
| 11          | Ductwork                               | 406,180.00         | 406,180.00                                 |             |                             | 406,180.00   | 100%         |                      | 40,618.00          |
| 12          | Owner Furnished Equipment Installation |                    |  |             |                             |  |              |                      |                    |
| 13          | HVAC Controls/Devices                  | 600,000.00         | 600,000.00                                 |             |                             | 600,000.00   | 100%         |                      | 60,000.00          |
| 14          | Testing/Inspection                     |                    |  |             |                             |  |              |                      |                    |
| 15          | CWS/Temporary HW & CW Tie-in           |                    |  |             |                             |  |              |                      |                    |
| 16          | CW Piping Above RO Space               |                    |  |             |                             |  |              |                      |                    |
| 17          | Piping                                 | 1,329,000.00       | 1,329,000.00                               |             |                             | 1,329,000.00   | 100%         |                      | 132,900.00         |
| 18          | CHW Piping to AHU's                    |                    |  |             |                             |  |              |                      |                    |
| 19          | Insulation                             |                    |  |             |                             |  |              |                      |                    |
| 20          | Pipe Supports                          | 200,000.00         | 200,000.00                                 |             |                             | 200,000.00   | 100%         |                      | 20,000.00          |
| 21          | Equipment Installation                 | 284,000.00         | 284,000.00                                 |             |                             | 284,000.00   | 100%         |                      | 28,400.00          |
| 22          | CT Support Steel                       | 200,000.00         | 200,000.00                                 |             |                             | 200,000.00   | 100%         |                      | 20,000.00          |
|             | Testing/Inspections                    |                    |  |             |                             |  |              |                      |                    |
|             | Hot Water System                       |                    |  |             |                             |  |              |                      |                    |
| 23          | Piping                                 |                    |  |             |                             |  |              |                      |                    |
| 24          | Insulation                             |                    |  |             |                             |  |              |                      |                    |
| 25          | Pipe Supports                          | 69,000.00          | 69,000.00                                  |             |                             | 69,000.00  | 100%         |                      | 6,900.00           |
| 26          | Testing/Inspection                     |                    |  |             |                             |  |              |                      |                    |
| 27          | RO System                              |                    |  |             |                             |  |              |                      |                    |
|             | Not In Scope                           |                    |  |             |                             |  |              |                      |                    |

Description of Item G:

| A        | B  | C               | D                                 |  | E           | F                     | G  | (G ÷ C)<br>% | H                 | I               |
|----------|--|-----------------|-----------------------------------|--|-------------|-----------------------|--|--------------|-------------------|-----------------|
| Item No. | Description of Work                              | Scheduled Value | WORK COMPLETED                    |  | This Period | Other (Not in D or E) | Total Completed to Date (Describe Below) (D+E+F) |              | Balance to Finish | Retainage Ten % |
|          |  |                 | From Previous Application (D + E) |  |             |                       |  |              |                   |                 |
| 28       | Air Compressor System                            |                 |                                   |  |             |                       |  |              |                   |                 |
| 29       | Natural Gas                                      |                 |                                   |  |             |                       |  |              |                   | 21,755.00       |
| 30       | Piping   | 217,550.00      | 217,550.00                        |  |             |                       | 217,550.00                                       | 100%         |                   |                 |
| 31       | Pipe Supports                                    | 16,100.00       | 16,100.00                         |  |             |                       | 16,100.00  | 100%         |                   | 1,610.00        |
| 32       | Inline Devices/Controls                          |                 |                                   |  |             |                       |  |              |                   |                 |
| 33       | Testing/Inspection                               |                 |                                   |  |             |                       |  |              |                   |                 |
| 34       | Domestic HW/CW Systems                           |                 |                                   |  |             |                       |  |              |                   |                 |
| 35       | Piping   |                 |                                   |  |             |                       |  |              |                   |                 |
| 36       | Insulation                                       |                 |                                   |  |             |                       |  |              |                   |                 |
| 37       | Equipment Installation                           |                 |                                   |  |             |                       |  |              |                   |                 |
| 38       | Relocate Backflow Preventer                      |                 |                                   |  |             |                       |  |              |                   |                 |
| 39       | Testing/Inspection                               |                 |                                   |  |             |                       |  |              |                   |                 |
| 40       | Sanitary/Oil Waster/Storm                        |                 |                                   |  |             |                       |  |              |                   |                 |
| 41       | Sanitary/QW Piping                               |                 |                                   |  |             |                       |  |              |                   |                 |
| 42       | Sewer Ejector Pump Equipment                     | 54,000.00       | 54,000.00                         |  |             |                       | 54,000.00  | 100%         |                   | 5,400.00        |
| 43       | Oil Separator                                    | 29,000.00       | 29,000.00                         |  |             |                       | 29,000.00  | 100%         |                   | 2,900.00        |
| 44       | Testing/Inspection                               |                 |                                   |  |             |                       |  |              |                   |                 |
| 45       | Electrical                                       |                 |                                   |  |             |                       |  |              |                   |                 |
| 46       | Medium Voltage Feeder Cables                     | 100,000.00      | 100,000.00                        |  |             |                       | 100,000.00                                       | 100%         |                   | 10,000.00       |
| 47       | Equipment Installation                           | 413,100.00      | 413,100.00                        |  |             |                       | 413,100.00                                       | 100%         |                   | 41,310.00       |
| 48       | Power Distribution                               | 263,000.00      | 263,000.00                        |  |             |                       | 263,000.00                                       | 100%         |                   | 26,300.00       |
| 49       | Cable Tray                                       | 279,000.00      | 279,000.00                        |  |             |                       | 279,000.00                                       | 100%         |                   | 27,900.00       |
| 50       | Lighting   |                 |                                   |  |             |                       |  |              |                   |                 |
| 51       | Substation Grounding                             |                 |                                   |  |             |                       |  |              |                   |                 |
| 52       | Security   |                 |                                   |  |             |                       |  |              |                   |                 |
| 53       | Fire Alarm/EWS                                   |                 |                                   |  |             |                       |  |              |                   |                 |
| 54       | PMCS Controls                                    |                 |                                   |  |             |                       |  |              |                   |                 |
| 55       | Conduit and Wiring for HVAC and Process Controls |                 |                                   |  |             |                       |  |              |                   |                 |

Description of Item G:

| A<br>Item<br>No. | B<br>Description of Work                    | C<br>Scheduled<br>Value | D<br>WORK COMPLETED                        |  | E<br>This Period | F<br>Other<br>(Not in D<br>or E) | G<br>Total<br>Completed<br>to Date<br>(Describe Below)<br>(D+E+F) | (G ÷ C)<br>% | H<br>Balance to<br>Finish | I<br>Retainage<br>Ten % |
|------------------|---|-------------------------|--|--|------------------|----------------------------------|---|--------------|---------------------------|-------------------------|
|                  |   |                         | From<br>Previous<br>Application<br>(D + E) |  |                  |                                  |   |              |                           |                         |
| 53               | Architectural                               |                         |  |  |                  |                                  |   |              |                           |                         |
| 54               | Control Room Fitout                         |                         |  |  |                  |                                  |   |              |                           |                         |
|                  | Patching Roof Penetrations                  |                         |  |  |                  |                                  |   |              |                           |                         |
|                  | Labor to Install Interior CMU Walls, Paint, |                         |  |  |                  |                                  |   |              |                           |                         |
|                  | Install D/F/H per Previously Issued Bid     |                         |  |  |                  |                                  |   |              |                           |                         |
| 55               | Alternate #13 Clarification Document,       | 200,000.00              | 200,000.00                                 |  |                  |                                  | 200,000.00  | 100%         |                           | 20,000.00               |
| 56               | dated 7-1-16                                | 25,900.00               | 25,900.00                                  |  |                  |                                  | 25,900.00   | 100%         |                           | 2,590.00                |
|                  | Other                                       |                         |  |  |                  |                                  |   |              |                           |                         |
| 57               | RO Distribution Scope                       | 67,000.00               | 67,000.00                                  |  |                  |                                  | 67,000.00   | 100%         |                           | 6,700.00                |
|                  | Demo  |                         |  |  |                  |                                  |   |              |                           |                         |
|                  | Taxes                                       |                         |  |  |                  |                                  |   |              |                           |                         |
| 58               | Taxes                                       | 204,750.00              | 204,750.00                                 |  |                  |                                  | 204,750.00  | 100%         |                           | 20,475.00               |
|                  | Others                                      |                         |  |  |                  |                                  |   |              |                           |                         |
| 59               | Fire Protection (Base)                      | 149,000.00              | 149,000.00                                 |  |                  |                                  | 149,000.00  | 100%         |                           | 14,900.00               |
| 60               | CWT Alternate Material Stainless            | 33,927.00               | 33,927.00                                  |  |                  |                                  | 33,927.00   | 100%         |                           | 3,392.70                |
|                  | Additional Valves on NPCW and CWW           |                         |  |  |                  |                                  |   |              |                           |                         |
| 61               | Service                                     | 8,644.00                | 8,644.00                                   |  |                  |                                  | 8,644.00  | 100%         |                           | 864.40                  |
| 62               | Stormwater Ditch Demo                       | 14,066.00               | 14,066.00                                  |  |                  |                                  | 14,066.00   | 100%         |                           | 1,406.60                |
| 63               | Gravel at UF/RO Tank Pad                    | 2,145.00                | 2,145.00                                   |  |                  |                                  | 2,145.00  | 100%         |                           | 214.50                  |
|                  |   |                         |  |  |                  |                                  |   |              |                           |                         |
| 64               | Slab modifications at Substation to         |                         |  |  |                  |                                  |   |              |                           |                         |
|                  | Accommodate Low Voltage Switchgear          | 18,393.00               | 18,393.00                                  |  |                  |                                  | 18,393.00   | 100%         |                           | 1,839.30                |
| 65               | Added Cable Tray Unistrut Support at        | 45,349.00               | 45,349.00                                  |  |                  |                                  | 45,349.00   | 100%         |                           | 4,534.90                |
| 66               | North Utility Rack                          | 8,086.00                | 8,086.00                                   |  |                  |                                  | 8,086.00  | 100%         |                           | 808.60                  |
|                  | Supplemental Cable Tray Material            |                         |  |  |                  |                                  |   |              |                           |                         |
| 67               | Others                                      |                         |  |  |                  |                                  |   |              |                           |                         |
| 68               | C.O. 10 Rework Doors Per Bulletin #3        | 11,451.00               | 11,451.00                                  |  |                  |                                  | 11,451.00   | 100%         |                           | 1,145.10                |
|                  | General Conditions                          |                         |  |  |                  |                                  |   |              |                           |                         |
| 69               | Mobilization/Demobilization                 | 18,000.00               | 18,000.00                                  |  |                  |                                  | 18,000.00   | 100%         |                           | 1,800.00                |
| 70               | General Conditions                          | 502,000.00              | 502,000.00                                 |  |                  |                                  | 502,000.00  | 100%         |                           | 50,200.00               |
| 71               | MEP PM & Badging                            |                         |  |  |                  |                                  |   |              |                           |                         |
| 72               | Safety and Security Requirements            | 42,000.00               | 42,000.00                                  |  |                  |                                  | 42,000.00   | 100%         |                           | 4,200.00                |
| 73               | SWPPP                                       | 1,800.00                | 1,800.00                                   |  |                  |                                  | 1,800.00  | 100%         |                           | 180.00                  |
| 74               | Insurance                                   | 42,000.00               | 42,000.00                                  |  |                  |                                  | 42,000.00   | 100%         |                           | 4,200.00                |
| 75               | Builders Risk Insurance                     | 12,000.00               | 12,000.00                                  |  |                  |                                  | 12,000.00   | 100%         |                           | 1,200.00                |
| 76               | Project Closeout                            | 15,000.00               | 15,000.00                                  |  |                  |                                  | 15,000.00   | 100%         |                           | 1,500.00                |

Description of Item G:

| A           | B                                      | C                  | D  | E           | F                           | G  | (G + C)<br>% | H                    | I                  |
|-------------|--|--------------------|--|-------------|-----------------------------|--|--------------|----------------------|--------------------|
| Item<br>No. | Description of Work                    | Scheduled<br>Value | WORK COMPLETED                             |             | Other<br>(Net in D<br>or E) | Total<br>Completed<br>to Date<br>(Describe Below)<br>(D+E+F) |              | Balance to<br>Finish | Retainage<br>Ten % |
|             |  |                    | From<br>Previous<br>Application<br>(D + E) | This Period |                             |  |              |                      |                    |
| 77          | Equipment Trucking                     | 20,000.00          | 20,000.00                                  |             |                             | 20,000.00  | 100%         |                      | 2,000.00           |
| 78          | 3D BIM Coordination                    |                    |  |             |                             |  |              |                      |                    |
| 79          | HVAC                                   |                    |  |             |                             |  |              |                      |                    |
| 80          | Ductwork                               | 181,820.00         | 181,820.00                                 |             |                             | 181,820.00   | 100%         |                      | 18,182.00          |
| 81          | Owner Furnished Equipment Installation | 95,000.00          | 95,000.00                                  |             |                             | 95,000.00  | 100%         |                      | 9,500.00           |
| 82          | HVAC Controls/Devices                  | 222,000.00         | 222,000.00                                 |             |                             | 222,000.00   | 100%         |                      | 22,200.00          |
| 83          | Testing/Inspection                     | 3,000.00           | 3,000.00                                   |             |                             | 3,000.00   | 100%         |                      | 300.00             |
| 84          | CWS/Temporary HW & CW Tie-in           |                    |  |             |                             |  |              |                      |                    |
| 85          | CW Piping Above RO Space               |                    |  |             |                             |  |              |                      |                    |
| 86          | Piping                                 | 1,642,158.00       | 1,642,158.00                               |             |                             | 1,642,158.00   | 100%         |                      | 164,215.80         |
| 87          | CHW Piping to AHU's                    | 209,200.00         | 209,200.00                                 |             |                             | 209,200.00   | 100%         |                      | 20,920.00          |
| 88          | Insulation                             | 133,500.00         | 133,500.00                                 |             |                             | 133,500.00   | 100%         |                      | 13,350.00          |
| 89          | Pipe Supports                          | 11,300.00          | 11,300.00                                  |             |                             | 11,300.00  | 100%         |                      | 1,130.00           |
| 90          | Equipment Installation                 | 406,000.00         | 406,000.00                                 |             |                             | 406,000.00   | 100%         |                      | 40,600.00          |
| 91          | CT Support Steel                       | 49,000.00          | 49,000.00                                  |             |                             | 49,000.00  | 100%         |                      | 4,900.00           |
| 92          | Testing/Inspections                    |                    |  |             |                             |  |              |                      |                    |
| 93          | Hot Water System                       |                    |  |             |                             |  |              |                      |                    |
| 94          | Piping                                 | 811,000.00         | 811,000.00                                 |             |                             | 811,000.00   | 100%         |                      | 81,100.00          |
| 95          | Insulation                             | 218,500.00         | 218,500.00                                 |             |                             | 218,500.00   | 100%         |                      | 21,850.00          |
| 96          | Pipe Supports                          | 3,700.00           | 3,700.00                                   |             |                             | 3,700.00   | 100%         |                      | 370.00             |
| 97          | Testing/Inspection                     | 23,000.00          | 23,000.00                                  |             |                             | 23,000.00  | 100%         |                      | 2,300.00           |
| 98          | RO System                              |                    |  |             |                             |  |              |                      |                    |
| 99          | Not In Scope                           |                    |  |             |                             |  |              |                      |                    |
| 100         | Air Compressor System                  |                    |  |             |                             |  |              |                      |                    |
| 101         | Not In Scope                           |                    |  |             |                             |  |              |                      |                    |
| 102         | Natural Gas                            |                    |  |             |                             |  |              |                      |                    |
| 103         | Piping                                 | 11,450.00          | 11,450.00                                  |             |                             | 11,450.00  | 100%         |                      | 1,145.00           |
| 104         | Pipe Supports                          |                    |  |             |                             |  |              |                      |                    |
| 105         | Inline Devices/Controls                |                    |  |             |                             |  |              |                      |                    |
| 106         | Testing/Inspection                     | 8,800.00           | 8,800.00                                   |             |                             | 8,800.00   | 100%         |                      | 880.00             |

Description of Item G:

| A<br>Item<br>No. | B<br>Description of Work  | C<br>Scheduled<br>Value | D<br>WORK COMPLETED                        |             | F<br>Other<br>(Not in D<br>or E) | G<br>Total<br>Completed<br>to Date<br>(Describe Below)<br>(D+E+F) | (G + C)<br>% | H<br>Balance to<br>Finish | I<br>Retainage<br>Ten % |
|------------------|---|-------------------------|--|-------------|----------------------------------|---|--------------|---------------------------|-------------------------|
|                  |   |                         | From<br>Previous<br>Application<br>(D + E) | This Period |                                  |   |              |                           |                         |
| 101              | Domestic HW/CW Systems<br>Piping  | 338,000.00              | 338,000.00                                 |             |                                  |   | 100%         |                           | 33,800.00               |
| 102              | Insulation  | 86,000.00               | 86,000.00                                  |             |                                  |   | 100%         |                           | 8,600.00                |
| 103              | Equipment Installation  |                         |  |             |                                  |   |              |                           |                         |
| 104              | Relocate Backflow Preventer   | 25,300.00               | 25,300.00                                  |             |                                  |   | 100%         |                           | 2,530.00                |
| 105              | Testing/Inspection  | 12,000.00               | 12,000.00                                  |             |                                  |   | 100%         |                           | 1,200.00                |
| 106              | Sanitary/Oil Waster/Storm   |                         |  |             |                                  |   |              |                           |                         |
| 107              | Sanitary/OW Piping  | 244,000.00              | 244,000.00                                 |             |                                  |   | 100%         |                           | 24,400.00               |
| 108              | Sewer Ejector Pump Equipment  |                         |  |             |                                  |   |              |                           |                         |
| 109              | Oil Separator   |                         |  |             |                                  |   |              |                           |                         |
|                  | Testing/Inspections   | 5,700.00                | 5,700.00                                   |             |                                  |   | 100%         |                           | 570.00                  |
| 111              | Electrical  |                         |  |             |                                  |   |              |                           |                         |
| 112              | Medium Voltage Feeder Cables  | 129,000.00              | 129,000.00                                 |             |                                  |   | 100%         |                           | 12,900.00               |
| 113              | Equipment Installation  |                         |  |             |                                  |   |              |                           |                         |
| 114              | Power Distribution  | 589,000.00              | 589,000.00                                 |             |                                  |   | 100%         |                           | 58,900.00               |
| 115              | Cable Tray  | 30,000.00               | 30,000.00                                  |             |                                  |   | 100%         |                           | 3,000.00                |
| 116              | Lighting  | 211,000.00              | 211,000.00                                 |             |                                  |   | 100%         |                           | 21,100.00               |
| 117              | Substation Grounding  | 44,300.00               | 44,300.00                                  |             |                                  |   | 100%         |                           | 4,430.00                |
| 118              | Security  | 120,400.00              | 120,400.00                                 |             |                                  |   | 100%         |                           | 12,040.00               |
| 119              | Fire Alarm/EWS  | 213,700.00              | 213,700.00                                 |             |                                  |   | 100%         |                           | 21,370.00               |
| 120              | PMCS Controls   | 65,400.00               | 65,400.00                                  |             |                                  |   | 100%         |                           | 6,540.00                |
|                  | Conduit and Wiring for HVAC and Process Controls  | 180,000.00              | 180,000.00                                 |             |                                  |   | 100%         |                           | 18,000.00               |
| 121              | Architectural   |                         |  |             |                                  |   |              |                           |                         |
| 122              | Control Room Fitout   | 23,000.00               | 23,000.00                                  |             |                                  |   | 100%         |                           | 2,300.00                |
|                  | Patching Roof Penetrations  | 15,500.00               | 15,500.00                                  |             |                                  |   | 100%         |                           | 1,550.00                |
|                  | Labor to Install Interior CMU Walls, Paint,<br>Install D/F/H per Previously Issued Bid<br>Alternate #13 Clarification Document,<br>dated 7-1-16 |                         |  |             |                                  |   |              |                           |                         |
| 123              | Other   | 105,000.00              | 105,000.00                                 |             |                                  |   | 100%         |                           | 10,500.00               |
| 124              | RO Distribution Scope   | 4,000.00                | 4,000.00                                   |             |                                  |   | 100%         |                           | 400.00                  |
| 125              | Demo  |                         |  |             |                                  |   |              |                           |                         |
| 126              | Taxes   |                         |  |             |                                  |   |              |                           |                         |
| 127              | Taxes   | 110,250.00              | 110,250.00                                 |             |                                  |   | 100%         |                           | 11,025.00               |
| Totals           |   |                         |  |             |                                  |   |              |                           |                         |

Description of Item G:



| A<br>Item<br>No. | B<br>Description of Work            | C<br>Scheduled<br>Value | D<br>WORK COMPLETED                        |  | E<br>This Period | F<br>Other<br>(Not in D<br>or E) | G<br>Total<br>Completed<br>to Date<br>(Describe Below)<br>(D+E+F) | (G + C)<br>% | H<br>Balance to<br>Finish | I<br>Retainage<br>Ten % |
|------------------|-------------------------------------|-------------------------|--|--|------------------|----------------------------------|---|--------------|---------------------------|-------------------------|
|                  |                                     |                         | From<br>Previous<br>Application<br>(D + E) |  |                  |                                  |   |              |                           |                         |
| 128              | CAR 3 Steel at Box                  | 2,024.00                | 2,024.00                                   |  |                  |                                  | 2,024.00  | 100%         |                           | 202.40                  |
| 129              | CAR 4 PHB Tie In                    | 10,400.00               | 10,400.00                                  |  |                  |                                  | 10,400.00   | 100%         |                           | 1,040.00                |
| 130              | CAR 5 Heating #1                    | 16,631.00               | 16,631.00                                  |  |                  |                                  | 16,631.00   | 100%         |                           | 1,663.10                |
| 131              | CAR 6 CMU Rescope                   | 63,139.00               | 63,139.00                                  |  |                  |                                  | 63,139.00   | 100%         |                           | 6,313.90                |
| 132              | CAR 7 Temp Power UPS                | 569.00                  | 569.00                                     |  |                  |                                  | 569.00  | 100%         |                           | 56.90                   |
| 133              | CAR 8 Louver Blanks                 | 2,408.00                | 2,408.00                                   |  |                  |                                  | 2,408.00  | 100%         |                           | 240.80                  |
| 134              | CAR 9 Elevator Generator            | 5,881.00                | 5,881.00                                   |  |                  |                                  | 5,881.00  | 100%         |                           | 588.10                  |
| 135              | CAR 10 Transformer Lugs             | 578.00                  | 578.00                                     |  |                  |                                  | 578.00  | 100%         |                           | 57.80                   |
| 136              | CAR 11 Added Break Metal            | 2,753.00                | 2,753.00                                   |  |                  |                                  | 2,753.00  | 100%         |                           | 275.30                  |
| 137              | CAR 12 Added Roof Pavers            | 4,976.00                | 4,976.00                                   |  |                  |                                  | 4,976.00  | 100%         |                           | 497.60                  |
| 138              | CAR 13 Mezz Panels and Transformers | 23,806.00               | 23,806.00                                  |  |                  |                                  | 23,806.00   | 100%         |                           | 2,380.60                |
| 139              | CAR 14 Pump Terminal Boxes          | 2,565.00                | 2,565.00                                   |  |                  |                                  | 2,565.00  | 100%         |                           | 256.50                  |
| 140              | CAR 15 Fire Dept Connection         | 8,996.00                | 8,996.00                                   |  |                  |                                  | 8,996.00  | 100%         |                           | 899.60                  |
| 141              | CAR 16 Added Sprinkler Head         | 27,425.00               | 27,425.00                                  |  |                  |                                  | 27,425.00   | 100%         |                           | 2,742.50                |
| 142              | CAR 17 Fiber Change                 | 10,906.00               | 10,906.00                                  |  |                  |                                  | 10,906.00   | 100%         |                           | 1,090.60                |
| 143              | CAR 18 AKD20 Tray                   | 10,542.00               | 10,542.00                                  |  |                  |                                  | 10,542.00   | 100%         |                           | 1,054.20                |
| 144              | CAR 19 Bulieting #4                 | 38,079.00               | 38,079.00                                  |  |                  |                                  | 38,079.00   | 100%         |                           | 3,807.90                |
| 145              | CAR 20 Building Permit              | 10,506.25               | 10,506.25                                  |  |                  |                                  | 10,506.25   | 100%         |                           | 1,050.63                |
| 146              | CAR 21 Heating #2                   | 8,980.00                | 8,980.00                                   |  |                  |                                  | 8,980.00  | 100%         |                           | 898.00                  |
| 147              | CAR 22 Hydr. Spill                  | 307.00                  | 307.00                                     |  |                  |                                  | 307.00  | 100%         |                           | 30.70                   |
| 148              | CAR 23 400 Tie In                   | 6,075.00                | 6,075.00                                   |  |                  |                                  | 6,075.00  | 100%         |                           | 607.50                  |
| 149              | CAR 24 Handrail Mod                 | 4,176.00                | 4,176.00                                   |  |                  |                                  | 4,176.00  | 100%         |                           | 417.60                  |
| 150              | CAR 25 Control Room Windows         | 1,694.00                | 1,694.00                                   |  |                  |                                  | 1,694.00  | 100%         |                           | 169.40                  |
| 151              | CAR 26 Misc Elec                    | 1,191.00                | 1,191.00                                   |  |                  |                                  | 1,191.00  | 100%         |                           | 119.10                  |
| 152              | CAR 27 Unload Material              | 615.00                  | 615.00                                     |  |                  |                                  | 615.00  | 100%         |                           | 61.50                   |
| 153              | CAR 28 Trench Cutting               | 8,981.00                | 8,981.00                                   |  |                  |                                  | 8,981.00  | 100%         |                           | 898.10                  |
| 154              | CAR 29 Power Second Split           | 4,982.00                | 4,982.00                                   |  |                  |                                  | 4,982.00  | 100%         |                           | 498.20                  |
| 155              | CAR 30 Scrap Pipe Removal           | (614.00)                | (614.00)                                   |  |                  |                                  | (614.00)  | 100%         |                           | (61.40)                 |
| 156              | CAR 31 Commissioning Assist         | (16,915.00)             | (16,915.00)                                |  |                  |                                  | (16,915.00)   | 100%         |                           | (1,691.50)              |
| 157              | CAR 32 Saddle Thickness             | 4,976.00                | 4,976.00                                   |  |                  |                                  | 4,976.00  | 100%         |                           | 497.60                  |
| 158              | CAR 33 PDP Descope                  | (750.00)                | (750.00)                                   |  |                  |                                  | (750.00)  | 100%         |                           | (75.00)                 |
| 159              | CAR 34 400 Tin In Insulation        | 2,954.00                | 2,954.00                                   |  |                  |                                  | 2,954.00  | 100%         |                           | 295.40                  |
| 160              | CAR 35 Light Switch Credit          | (750.00)                | (750.00)                                   |  |                  |                                  | (750.00)  | 100%         |                           | (75.00)                 |
| 161              | CAR 36 Added Duke Costs             | 2,196.00                | 2,196.00                                   |  |                  |                                  | 2,196.00  | 100%         |                           | 219.60                  |
| 162              | CAR 37 Cone Light Credit            | (780.00)                | (780.00)                                   |  |                  |                                  | (780.00)  | 100%         |                           | (78.00)                 |

Description of Item G:

| A<br>Item<br>No. | B<br>Description of Work           | C<br>Scheduled<br>Value | D<br>WORK COMPLETED                        |          | E<br>This Period | F<br>Other<br>(Not In D<br>or E) | G<br>Total<br>Completed<br>to Date<br>(Describe Below)<br>(D+E+F) | (G ÷ C)<br>% | H<br>Balance to<br>Finish | I<br>Retainage<br>Ten % |
|------------------|------------------------------------|-------------------------|--|----------|------------------|----------------------------------|---|--------------|---------------------------|-------------------------|
|                  |                                    |                         | From<br>Previous<br>Application<br>(D + E) |          |                  |                                  |   |              |                           |                         |
| 163              | CAR 38 Split Syst Relocation       | 4,244.00                | 4,244.00                                   |          |                  |                                  | 4,244.00  | 100%         |                           | 424.40                  |
| 164              | CAR 39 Battery Charger Install     | 1,629.00                | 1,629.00                                   |          |                  |                                  | 1,629.00  | 100%         |                           | 162.90                  |
| 165              | CAR 40 Boiler Controls             | 7,840.00                | 7,840.00                                   |          |                  |                                  | 7,840.00  | 100%         |                           | 784.00                  |
| 166              | CAR 41 Elevator Lighs              | 736.00                  | 736.00                                     |          |                  |                                  | 736.00  | 100%         |                           | 73.60                   |
| 167              | CAR 42 Storefront Door             | 3,934.00                |  | 3,934.00 |                  |                                  | 3,934.00  | 100%         |                           | 393.40                  |
| 168              | CAR 43 Replace damaged floor sinks | 1,169.00                |  | 1,169.00 |                  |                                  | 1,169.00  | 100%         |                           | 116.90                  |
| Totals           |                                    | 13,356,673.25           | 13,351,570.25                              |          | 5,103.00         |                                  | 13,356,673.25   |              |                           | 1,335,667.33            |

Description of Item G: \_\_\_\_\_

contractor application for payment.doc

02-25-13

**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**9/22/2020 3:14:46 PM**

**in**

**Case No(s). 20-1534-EL-EEC**

Summary: Application Application to Commit Energy  
Efficiency/Peak Demand  
Reduction Programs  
(Mercantile Customers Only), GE Aviation - High Efficiency Chills electronically filed by Carys  
Cochern on behalf of Duke Energy