



Case No.: 13-0033 -EL-EEC

Mercantile Customer: City of Norwalk

Electric Utility: Ohio Edison Company

Program Title or
Description: Lift Station VFD's

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

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

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

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

Section 1: Mercantile Customer Information

Name: City of Norwalk

Principal address: 38 Whittlesey Ave. Norwalk, Ohio 44857

Address of facility for which this energy efficiency program applies: 201 Plank Rd.
Norwalk, OH 44857

Name and telephone number for responses to questions: Neil Wittberg: 614.949.5616

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

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

Section 2: Application Information

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

- ☐ Individually, without electric utility participation.
- ☒ Jointly with the electric utility.

B) The electric utility is: Ohio Edison Company

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)). **If Checked, Please see Exhibit 1 and Exhibit 2**
- ☐ Installation of new equipment to replace equipment that needed to be replaced. The customer installed new equipment on the following date(s): ____.
- ☒ Installation of new equipment for new construction or facility expansion. The customer installed new equipment on the following date(s):
5/2012.
- ☐ Behavioral or operational improvement.

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

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

Annual savings: ____ kWh

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

Annual savings: ____ kWh

Please describe any less efficient new equipment that was rejected in favor of the more efficient new equipment. **Please see Exhibit 1 if applicable**

- 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: 72,285 kWh

Please describe the less efficient new equipment that was rejected in favor of the more efficient new equipment. **Please see Exhibit 1 if applicable**

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

Section 4: Demand Reduction/Demand Response Programs

A) The customer's program involves (check the one that applies):

- ☐ Coincident peak-demand savings from the customer's energy 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?

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

_____ kW

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 \$2,625. (Rebate shall not exceed 50% project cost. Attach documentation showing the methodology used to determine the cash rebate value and calculations showing how this payment amount was determined.)

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: **See Exhibit 3** (Skip to Subsection 2.)

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

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

The electric utility's avoided supply costs were _____.

Our program costs were _____.

The 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 **See Exhibit 3**

The utility's program costs were **See Exhibit 3**

The utility's incentive costs/rebate costs were **See Exhibit 3**

Section 7: Additional Information

Please attach the following supporting documentation to this application:

- Narrative description of the program including, but not limited to, make, model, and year of any installed and replaced equipment.
- A copy of the formal declaration or agreement that commits the program or measure to the electric utility, including:
 - 1) any confidentiality requirements associated with the agreement;
 - 2) a description of any consequences of noncompliance with the terms of the commitment;
 - 3) a description of coordination requirements between the customer and the electric utility with regard to peak demand reduction;
 - 4) permission by the customer to the electric utility and Commission staff and consultants to measure and verify energy savings and/or peak-demand reductions resulting from your program; and,
 - 5) a commitment by the customer to provide an annual report on your energy savings and electric utility peak-demand reductions achieved.
- 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.



Public Utilities Commission

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

Case No.: ■■■ ■EL-EEC

State of Ohio :

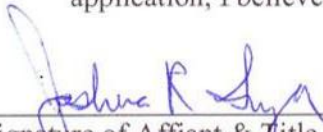
Josh Snyder, Affiant, being duly sworn according to law, deposes and says that:

1. I am the duly authorized representative of:

City of Norwalk

[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.


Signature of Affiant & Title

Sworn and subscribed before me this 30th day of November, 2012 Month/Year


Signature of official administering oath

Josh Snyder - Director Public Works
Print Name and Title

My commission expires on August 14, 2017



VALERIE STEBEL
NOTARY PUBLIC, STATE OF OHIO
My Commission Expires
August 14, 2017

Customer Legal Entity Name: City of Norwalk
Site Address: City of Norwalk
Principal Address: 201 Plank Rd

| Project No. | Project Name | Narrative description of your program including, but not limited to, make, model, and year of any installed and replaced equipment: | Description of methodologies, protocols and practices used in measuring and verifying project results | What date would you have replaced your equipment if you had not replaced it early? Also, please explain briefly how you determined this future replacement date. | Please describe the less efficient new equipment that you rejected in favor of the more efficient new equipment. |
|-------------|---------------------------|---|--|--|--|
| 1 | Wastewater Treatment VFDs | This project consists of two VFDs placed on water pumps | Data was gathered from attachment A: OE.Norwalk.LiftStation.VFDSpecs.A.pdf and input to the motors and drives calculator to determine the cash rebate amount. kWh savings were calculated in attachment B: OE.Norwalk.LiftStation.VFD.Calcs.B.xlsx | N/A | N/A |

Docket No. 13-0033
Site: 201 Plank Rd

Exhibit 2

Customer Legal Entity Name: City of Norwalk

Site Address: City of Norwalk

Principal Address: 201 Plank Rd

| | Unadjusted Usage, kwh (A) | Weather Adjusted Usage, kwh (B) | Weather Adjusted Usage with Energy Efficiency Addbacks, kwh (c) <i>Note 1</i> |
|----------------|------------------------------|------------------------------------|---|
| 2011 | 1,082,302 | 1,082,302 | 1,082,302 |
| Average | 1,082,302 | 1,082,302 | 1,082,302 |

| Project Number | Project Name | In-Service Date | Project Cost \$ | 50% of Project Cost \$ | KWh Saved/Year (D) counting towards utility compliance | KWh Saved/Year (E) eligible for incentive | Utility Peak Demand Reduction Contribution, KW (F) | Prescriptive Rebate Amount (G) \$ | Eligible Rebate Amount (H) \$ <small>Note 2</small> | Commitment Payment \$ |
|-----------------------|----------------------------------|------------------------|------------------------|-------------------------------|---|--|---|--|--|------------------------------|
| 1 | Wastewater Treatment VFDs | 05/01/2012 | \$8,500 | \$4,250 | 72,285 | 72,285 | - | \$3,500 | \$2,625 | |
| | | | | | - | - | - | | | |
| | | | | | - | - | - | | | |
| | | | | | - | - | - | | | |
| | | | | | - | - | - | | | |
| | | | | | - | - | - | | | |
| | | | | | - | - | - | | | |
| | | | | | - | - | - | | | |
| | Total | | \$8,500 | | 72,285 | 72,285 | 0 | \$3,500 | \$2,625 | \$0 |

Docket No. 13-0033

Site: 201 Plank Rd

Notes

(1) Customer's usage is adjusted to account for the effects of the energy efficiency programs included in this application. When applicable, such adjustments are prorated to the in-service date to account for partial year savings.

(2) The eligible rebate amount is based upon 75% of the rebates offered by the FirstEnergy Commercial and Industrial Energy Efficiency programs or 75% of \$0.08/kWh for custom programs for all energy savings eligible for a cash rebate as defined in the PUCO order in Case NO. 10-834-EL-EEC dated 9/15/2010, not to exceed the lesser of 50% of the project cost or \$250,000 per project. The rebate also cannot exceed \$500,000 per customer per year, per utility service territory.

Exhibit 3 Utility Cost Test

UCT = Utility Avoided Costs / Utility Costs

| Project | Total Annual Savings, MWh (A) | Utility Avoided Cost \$/MWh (B) | Utility Avoided Cost \$ (C) | Utility Cost \$ (D) | Cash Rebate \$ (E) | Administrator Variable Fee \$ (F) | Total Utility Cost \$ (G) | UCT (H) |
|--------------|----------------------------------|------------------------------------|--------------------------------|------------------------|-----------------------|--------------------------------------|------------------------------|------------|
| 1 | 72 | \$ 308 | \$ 22,284 | \$ 4,050 | \$2,625 | \$723 | \$ 7,398 | 3.0 |
| Total | 72 | \$ 308 | 22,284 | 4,050 | \$2,625 | \$723 | 7,398 | 3.0 |

Notes

- (A) From Exhibit 2, = kWh saved / 1000
- (B) This value represents avoided energy costs (wholesale energy prices) from the Department of Energy, Energy Information Administration's 2009 Annual Energy Outlook (AEO) low oil prices case. The AEO represents a national average energy price, so for a better representation of the energy price that Ohio customers would see, a Cinergy Hub equivalent price was derived by applying a ratio based on three years of historic national average and Cinergy Hub prices. This value is consistent with avoided cost assumptions used in EE&PDR Program Portfolio and Initial Benchmark Report, filed Dec 15, 2009 (See Section 8.1, paragraph a).
- (C) = (A) * (B)
- (D) Represents the utility's costs incurred for self-directed mercantile applications for applications filed and applications in progress. Includes incremental costs of legal fees, fixed administrative expenses, etc.
- (E) This is the amount of the cash rebate paid to the customer for this project.
- (F) Based on approximate Administrator's variable compensation for purposes of calculating the UCT, actual compensation may be less.
- (G) = (D) + (E) + (F)
- (H) = (C) / (G)

City of Norwalk ~ City of Norwalk
Docket No. 13-0033

Site: 201 Plank Rd



Ohio Edison • The Illuminating Company • Toledo Edison

| | |
|----------------------|-----------------|
| Project Name: | City of Norwalk |
| Site Name: | |
| Completed by (Name): | Ben Aring |
| Date completed: | 11/26/2012 |

Variable Frequency Drive Rebate Form

| VFD and Controlled Motor Nameplate DATA | | | | | | | | | | | Total Motor Incentive ¹ \$ |
|---|------------------|------------------|--------------------|----------------|-----------------------------|--|-------------------------------|--------------------|----------|--------------------------|--|
| Motor Application | VFD Manufacturer | VFD Model Number | Unique Motor ID(s) | Motor Location | Enclosure type: TEFC or ODP | Annual Hours of Operation ² | Load Factor (LF) ³ | Motor Model Number | Motor HP | Motor Nominal Efficiency | |
| Pump | Powerflex | 400 22C-D072A103 | Lift Station | P-1, P-2 | TEFC | 5520 | 0.8 | S4R4-460V-113 | 50 | 91.1 | 3,500 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| Incentive through 10/11/2011 @ \$35/hp | | | | | | | | | | | 3,500 |

(1) VFD incentives (through 10/11/2011) are calculated at a flat rate of \$35 per horsepower controlled, up to a maximum of 500 hp controlled per VFD.

When a single VFD is used to control two motors in a lead/lag (standby, redundant) configuration, use only the horsepower rating of one motor to figure controlled horsepower. For instance, if a single VFD controls two 30hp motors with only one operating at a time, the incentive calculation should be based on 30 hp: 30hp x \$35/hp = \$900.

(2) For VAV fan motors, enter 2790 annual hours of operation. For HVAC pump motors, enter 5520 annual hours of operation. For all other motor usage, please estimate your annual hours of operation and attach an explanation of how you determined this value.

(3) For all motor and VFD applications, use the Load Factor (LF) default value of 0.80, unless data is available to support the use of a motor-specific LF other than 0.80. Please attach an explanation, including your analysis and/or data used, to support motor-specific LF value.

City of Norwalk

Attachment B

Lift Station

VFD Savings Calculation

| TAG | Quantity | Motor hp | Eff | Runtime* | Load Factor | Usage(kWh) | Usage w/ VFD*** |
|------------------|----------|----------|-------|----------|-------------|-------------|-----------------|
| 400 22C-D072A103 | 2 | 50 | 0.911 | 5520 | 0.8 | 361423.6663 | 289138.933 |
| | | | | | | | |
| | | | | | | Savings | 72284.7 |

VFD Usage
based on a
20% reduction
in total energy
use. This
percentage is
based on
typical
reductions
measured in
similar
applications.
20% is fairly
conservative,
actual savings
are probably
higher.

WATER WASTEWATER INTEGRATOR DRIVE START-UP / WARRANTY REGISTRATION

For approved Water Wastewater Drive Integration Warranty Registration. Fill out the form completely (failure to complete this form will invalidate any Extended Warranty), Mail Fax or Email to Rockwell Automation Technical Support (262) 512-2222 support@drives.ra.rockwell.com Attn: Jill/Jason

Attachment A

Equipment Designation: SR. 250 LS Pump 1

Date of Start-up: 5 / 1 / 2012

Customer Identification

Company City of Norwalk
Address: 201 Plank Rd.
City: Norwalk
State / Zip: Ohio 44857
Contact Person: David Ackerman
Ph. / Fax: 419-663-6759 419-663-6756

Drive Information

Unit / Model / CAT: PowerFlex 400 22C-D072A103
Serial Number: CD072A0W1490022
Software Rev: 6.01
Option Mod: _____ s/n _____
Option Mod: _____ s/n _____
Option Mod: _____ s/n _____

Certified System Integrator Information

| | | | | |
|---|-----------------------|---------------------|--|--|
| Company Name: <u>Summit Office Solutions</u> | City: <u>Akron</u> | State: <u>Oh</u> | Contact Person: <u>James Hejduk</u> | Telephone Number: <u>330-294-0089</u> |
|---|-----------------------|---------------------|--|--|

Motor Identification

| | | | | |
|----------------------------------|--------------------------------|--------------------------|--|--|
| MFGR: <u>Vaughan Co. Inc.</u> | Model: <u>54R4-460V-113</u> | NEMA design: <u>B</u> | HP: <u>50</u> | Inverter Duty: YES <input checked="" type="radio"/> NO |
| Voltage: <u>460 VAC 3PH</u> | F.L.A: <u>64.3</u> | Freq: <u>60 Hz</u> | Base speed: <u>1770 RPM</u> | |
| S.F.: <u>1.15</u> | Insulation class: <u>F</u> | Frame: <u>320TY</u> | Speed range: (4:1,10:1,etc.): <u>NA</u> | |

Installation Checklist >>>> Refer to User's Manual and Reference Manual

Electrical Checks (voltage and current readings measured under application load @ full speed if applicable)

| Voltage In. 3Ø: | Voltage Out @ base speed | Input Amps/Loaded | Output Amps/Loaded | Megger Reading (If Applicable) |
|--|--------------------------|-------------------|---|--------------------------------|
| A/B <u>483</u> | T1/T2 <u>552</u> | AΦ <u>61</u> | AΦ <u>63</u> | T1-GND <u>NA</u> |
| B/C <u>484</u> | T2/T3 <u>550</u> | BΦ <u>55</u> | BΦ <u>61</u> | T2-GND <u>NA</u> |
| C/A <u>486</u> | T1/T3 <u>551</u> | CΦ <u>51</u> | CΦ <u>60</u> | T3-GND <u>NA</u> |
| Input Reference Signal: (4-20ma) <u>X</u> , Other: _____ | | | Motor Cable Length: (Approx.) <u>30 FT</u> | |
| Input Reference Signal: (0-10vdc) _____, Other: _____ | | | | |

Software Used on Drive (check one)

____ DriveTools
____ Drive Explorer:
____ RS NetWorx / DeviceNet or ControlNet
X N/A

How were Parameters left w/ Customer

X Printed
____ Saved To HIM
____ External Media (CD, Thumb Drive, etc.)
____ Other: (Explain) _____

Application (brief description - pump, fan, mixer, top motor rpm, accel time, decel time, etc.)

Lift Station pump, 1750 rpm, 15 sec accel time, 15 sec decel time
minimum speed 15 Hz

Comments (environmental, air flow, clearance, fusing, etc.)

Name 4x Enclosure, 100 Amp MCP 12" clearance on all sides

Performed By: James Hejduk Date: 6/12/2012 Certification #: PF400-1004-229
Customer Signature: _____
Rockwell Automation
Technical Support
6400 West Enterprise Dr.
Mequon, WI 53092

WATER WASTEWATER INTEGRATOR DRIVE START-UP / WARRANTY REGISTRATION

For approved Water Wastewater Drive Integration Warranty Registration. Fill out the form completely (failure to complete this form will invalidate any Extended Warranty), Mail Fax or Email to Rockwell Automation Technical Support (262) 512-2222 support@drives.ra.rockwell.com Attn: Jill/Jason

Equipment Designation: SR 250 LS Pump

Date of Start-up: 5 / 1 / 2012

Customer Identification

Company City of Norwalk

Address: 201 Plank Rd.

City: Norwalk

State / Zip: Ohio 44857

Contact Person: David Ackerman

Ph. / Fax: 419-663-6755 / 419-663-6756

Drive Information

Unit / Model / CAT: Powerflex 400 22C-DO72A103

Serial Number: CD072A0W1490066

Software Rev: 6.01

Option Mod: _____ s/n _____

Option Mod: _____ s/n _____

Option Mod: _____ s/n _____

Certified System Integrator Information

| | | | | |
|---|-----------------------|---------------------|--|--|
| Company Name: <u>Summit Office Solutions</u> | City: <u>Akron</u> | State: <u>OH</u> | Contact Person: <u>James Hajduk</u> | Telephone Number: <u>330-294-0089</u> |
|---|-----------------------|---------------------|--|--|

Motor Identification

| | | | | |
|---------------------------------|-------------------------------|--------------------------|--|--|
| MFGR: <u>Vaughan Co Inc.</u> | Model: <u>54R4-460-113</u> | NEMA design: <u>B</u> | HP: <u>50</u> | Inverter Duty: YES <input checked="" type="radio"/> NO |
| Voltage: <u>460 VAC 3PH</u> | F.L.A.: <u>64.3</u> | Freq: <u>60 Hz</u> | Base speed: <u>1770 RPM</u> | |
| S.F.: <u>1.15</u> | Insulation class: <u>F</u> | Frame: <u>320Ty</u> | Speed range: (4:1,10:1,etc.): <u>NA</u> | |

Installation Checklist >>>>> Refer to User's Manual and Reference Manual

Electrical Checks (voltage and current readings measured under application load @ full speed if applicable)

| Voltage In. 3Φ: | Voltage Out @ base speed | Input Amps/Loaded | Output Amps/Loaded | Megger Reading (If Applicable) |
|--|--------------------------|-------------------|-------------------------------|--------------------------------|
| A/B 485 | T1/T2 550 | AΦ 57 | AΦ 68 | T1-GND NA |
| B/C 489 | T2/T3 547 | BΦ 49 | BΦ 63 | T2-GND NA |
| C/A 492 | T1/T3 548 | CΦ 52 | CΦ 60 | T3-GND NA |
| Input Reference Signal: (4-20ma) _____, Other: _____ | | | Motor Cable Length: (Approx.) | |
| Input Reference Signal: (0-10vdc) _____ | | | | |

Software Used on Drive (check one)

- ☐ DriveTools
☐ Drive Explorer:
☐ RS NetWorx / DeviceNet or ControlNet
☒ N/A

How were Parameters left w/ Customer

- ☒ Printed
☐ Saved To HIM
☐ External Media (CD, Thumb Drive, etc.)
☐ Other: (Explain) _____

Application (brief description - pump, fan, mixer, top motor rpm, accel time, decel time, etc.)

Lift Station pump, 1750 RPM, 15 sec accel, 15 sec decel
minimum speed 15 Hz

Comments (environmental, air flow, clearance, fusing, etc.)


Nema 4X Enclosure, 100 Amp MCP 12" clearance on all sides

Performed By: James Hajduk

Date: 6/12/2012 Certification #: PF400-1004-229

Customer Signature: _____

Rockwell Automation
Technical Support
6400 West Enterprise Dr.
Mequon, WI 53092

| | | | | | | | | | | | |
|--|-------------|-----------------------|-----------------------|---|----------------------|----------------------|--|--|--|--|--|
| | 320TY | 50 | P | 3/60 | 1770 | 460 | | | | | |
| AMPS | DUTY | AMB °C/ °F | | PHASE | WINDING | | | | | | |
| 64.3 | * | 40/F | 1.15 | B | G | SUB | | | | | |
| E/S | ROTOR | TEST S.O. | TEST DATE | STATOR RES. @ 25 °C OHMS (BETWEEN LINES) | | | | | | | |
| 890070 | 418140036TE | --- | --- | .149 | | | | | | | |
| PERFORMANCE | | | | | | | | | | | |
| LOAD | HP | AMPERES | RPM | INPUT KW | % POWER FACTOR | % EFFI- CIENCY | | | | | |
| NO LOAD | 0 | 24.3 | 1800 | 1.81 | 9.31 | 0 | | | | | |
| 1/4 | 12.5 | 29.7 | 1793 | 11.3 | 47.5 | 82.9 | | | | | |
| 2/4 | 25.0 | 38.7 | 1786 | 20.9 | 67.9 | 89.3 | | | | | |
| 3/4 | 37.5 | 50.7 | 1778 | 30.8 | 76.2 | 90.9 | | | | | |
| 4/4 | 50.0 | 64.3 | 1770 | 40.9 | 79.8 | 91.1 | | | | | |
| 5/4 | 62.5 | 79.1 | 1761 | 51.4 | 81.6 | 90.7 | | | | | |
| | | | | | | | | | | | |
| SPEED TORQUE | | | | | | | | | | | |
| | | RPM | TORQUE % FULL LOAD | TORQUE LB.-FT. | AMPERES | | | | | | |
| LOCKED ROTOR | | 0 | 174 | 258 | 362 | | | | | | |
| PULL UP | | 925 | 155 | 230 | 327 | | | | | | |
| BREAKDOWN | | 1671 | 245 | 363 | 208 | | | | | | |
| FULL LOAD | | 1770 | 100 | 148 | 64.3 | | | | | | |
| AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE REMARKS: TYPICAL DATA *15 MIN IN AIR - CONT IN WATER | | | | | | | | | | | |
|  | | DR. BY D. M. BYRD | | A-C MOTOR PERFORMANCE W00883-C-J015 DATA ISSUE DATE 07/21/04 | | | | | | | |
| | | CK. BY T. S. WILLIAMS | | | | | | | | | |
| | | APP. BY D. M. BYRD | | | | | | | | | |
| | | DATE 07/21/04 | | | | | | | | | |

Mercantile Customer Project Commitment Agreement
Cash Rebate Option

THIS MERCANTILE CUSTOMER PROJECT COMMITMENT AGREEMENT ("Agreement") is made and entered into by and between Ohio Edison Company, its successors and assigns (hereinafter called the "Company") and City of Norwalk, Taxpayer ID No. 34-6400994 its permitted successors and assigns (hereinafter called the "Customer") (collectively the "Parties" or individually the "Party") and is effective on the date last executed by the Parties as indicated below.

WITNESSETH

WHEREAS, the Company is an electric distribution utility and electric light company, as both of these terms are defined in R.C. § 4928.01(A); and

WHEREAS, Customer is a mercantile customer, as that term is defined in R.C. § 4928.01(A)(19), doing business within the Company's certified service territory; and

WHEREAS, R.C. § 4928.66 (the "Statute") requires the Company to meet certain energy efficiency and peak demand reduction ("EE&PDR") benchmarks; and

WHEREAS, when complying with certain EE&PDR benchmarks the Company may include the effects of mercantile customer-sited EE&PDR projects; and

WHEREAS, Customer has certain customer-sited demand reduction, demand response, or energy efficiency project(s) as set forth in attached Exhibit 1 (the "Customer Energy Project(s)") that it desires to commit to the Company for integration into the Company's Energy Efficiency & Peak Demand Reduction Program Portfolio Plan ("Company Plan") that the Company will implement in order to comply with the Statute; and

WHEREAS, the Customer, pursuant to the Public Utilities Commission of Ohio's ("Commission") September 15, 2010 Order in Case No. 10-834-EL-EEC, desires to pursue a cash rebate of some of the costs pertaining to its Customer Energy Project(s) ("Cash Rebate") and is committing the Customer Energy Project(s) as a result of such incentive.

WHEREAS, Customer's decision to commit its Customer Energy Project(s) to the Company for inclusion in the Company Plan has been reasonably encouraged by the possibility of a Cash Rebate.

WHEREAS, in consideration of, and upon receipt of, said cash rebate, Customer will commit the Customer Energy Project(s) to the Company and will comply with all other terms and conditions set forth herein.

NOW THEREFORE, in consideration of the mutual promises set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties, intending to be legally bound, do hereby agree as follows:

1. **Customer Energy Projects.** Customer hereby commits to the Company and Company accepts for integration into the Company Plan the Customer Energy Project(s) set forth on attached Exhibit 1. Said commitment shall be for the life of the Customer Energy Project(s). Company will incorporate said project(s) into the Company Plan to the extent that such projects qualify. In so committing, and as evidenced by the affidavit attached hereto as Exhibit A, Customer acknowledges that the information provided to the Company about the Customer Energy Project(s) is true and accurate to the best of its knowledge.

- a. By committing the Customer Energy Project(s) to the Company, Customer acknowledges and agrees that the Company shall control the use of the kWh and/or kW reductions resulting from said projects for purposes of complying with the Statute. By committing the Customer Energy Project(s), Customer further acknowledges and agrees that the Company shall take ownership of the energy efficiency capacity rights associated with said Project(s) and shall, at its sole discretion, aggregate said capacity into the PJM market through an auction. Any proceeds from any such bids accepted by PJM will be used to offset the costs charged to the Customer and other of the Company's customers for compliance with state mandated energy efficiency and/or peak demand requirements
 - b. The Company acknowledges that some of Customer's Energy Projects contemplated in this paragraph may have been performed under certain other federal and/or state programs in which certain parameters are required to be maintained in order to retain preferential financing or other government benefits (individually and collectively, as appropriate, "Benefits"). In the event that the use of any such project by the Company in any way affects such Benefits, and upon written request from the Customer, Company will release said Customer's Energy Project(s) to the extent necessary for Customer to meet the prerequisites for such Benefits. Customer acknowledges that such release (i) may affect Customer's cash rebate discussed in Article 3 below; and (ii) will not affect any of Customer's other requirements or obligations.
 - c. Any future Customer Energy Project(s) committed by Customer shall be subject to a separate application and, upon approval by the Commission, said projects shall become part of this Agreement.
 - d. Customer will provide Company or Company's agent(s) with reasonable assistance in the preparation of the Commission's standard joint application for approval of this Agreement ("Joint Application") that will be filed with the Commission, with such Joint Application being consistent with then current Commission requirements.
 - e. Upon written request and reasonable advance notice, Customer will grant employees or authorized agents of either the Company or the Commission reasonable, pre-arranged access to the Customer Energy Project(s) for purposes of measuring and verifying energy savings and/or peak demand reductions resulting from the Customer Energy Project(s). It is expressly agreed that consultants of either the Company or the Commission are their respective authorized agents.
2. **Joint Application to the Commission.** The Parties will submit the Joint Application using the Commission's standard "Application to Commit Energy Efficiency/Peak Demand Reduction Programs" ("Joint Application") in which they will seek the Commission's approval of (i) this Agreement; (ii) the commitment of the Customer Energy Project(s) for inclusion in the Company Plan; and (iii) the Customer's Cash Rebate.

The Joint Application shall include all information as set forth in the Commission's standard form which, includes without limitation:

- i. A narrative description of the Customer Energy Project(s), including but not limited to, make, model and year of any installed and/or replaced equipment;
- ii. A copy of this Agreement; and
- iii. A description of all methodologies, protocols, and practices used or proposed to be used in measuring and verifying program results.

3. **Customer Cash Rebate.** Upon Commission approval of the Joint Application, Customer shall provide Company with a W-9 tax form, which shall at a minimum include Customer's tax identification number. Within the greater of 90 days of the Commission's approval of the Joint Application or the completion of the Customer Energy Project, the Company will issue to the Customer the Cash Rebate in the amount set forth in the Commission's Finding and Order approving the Joint Application.
 - a. Customer acknowledges: i) that the Company will cap the Cash Rebate at the lesser of 50% of Customer Energy Project(s) costs or \$250,000; ii) the maximum rebate that the Customer may receive per year is \$500,000 per Taxpayer Identification Number per utility service territory; and iii) if the Customer Energy Project qualifies for a rebate program approved by the Commission and offered by the Company, Customer may still elect to file such project under the Company's mercantile customer self direct program, however the Cash Rebate that will be paid shall be discounted by 25%; and
 - b. Customer acknowledges that breaches of this Agreement, include, but are not limited to:
 - i. Customer's failure to comply with the terms and conditions set forth in the Agreement, or its equivalent, within a reasonable period of time after receipt of written notice of such non-compliance;
 - ii. Customer knowingly falsifying any documents provided to the Company or the Commission in connection with this Agreement or the Joint Application.
 - c. In the event of a breach of this Agreement by the Customer, Customer agrees and acknowledges that it will repay to the Company, within 90 days of receipt of written notice of said breach, the full amount of the Cash Rebate paid under this Agreement. This remedy is in addition to any and all other remedies available to the Company by law or equity.
4. **Termination of Agreement.** This Agreement shall automatically terminate:
 - a. If the Commission fails to approve the Joint Agreement;
 - b. Upon order of the Commission; or
 - c. At the end of the life of the last Customer Energy Project subject to this Agreement.

Customer shall also have an option to terminate this Agreement should the Commission not approve the Customer's Cash Rebate, provided that Customer provides the Company with written notice of such termination within ten days of either the Commission issuing a final appealable order or the Ohio Supreme Court issuing its opinion should the matter be appealed.

5. **Confidentiality.** Each Party shall hold in confidence and not release or disclose to any person any document or information furnished by the other Party in connection with this Agreement that is designated as confidential and proprietary ("Confidential Information"), unless: (i) compelled to disclose such document or information by judicial, regulatory or administrative process or other provisions of law; (ii) such document or information is generally available to the public; or (iii) such document or information was available to the receiving Party on a non-confidential basis at the time of disclosure.
 - a. Notwithstanding the above, a Party may disclose to its employees, directors, attorneys, consultants and agents all documents and information furnished by the other Party in connection with this Agreement, provided that such employees, directors, attorneys,

consultants and agents have been advised of the confidential nature of this information and through such disclosure are deemed to be bound by the terms set forth herein.

- b. A Party receiving such Confidential Information shall protect it with the same standard of care as its own confidential or proprietary information.
 - c. A Party receiving notice or otherwise concluding that Confidential Information furnished by the other Party in connection with this Agreement is being sought under any provision of law, to the extent it is permitted to do so under any applicable law, shall endeavor to: (i) promptly notify the other Party; and (ii) use reasonable efforts in cooperation with the other Party to seek confidential treatment of such Confidential Information, including without limitation, the filing of such information under a valid protective order.
 - d. By executing this Agreement, Customer hereby acknowledges and agrees that Company may disclose to the Commission or its Staff any and all Customer information, including Confidential Information, related to a Customer Energy Project, provided that Company uses reasonable efforts to seek confidential treatment of the same.
6. **Taxes.** Customer shall be responsible for all tax consequences (if any) arising from the payment of the Cash Rebate.
7. **Notices.** Unless otherwise stated herein, all notices, demands or requests required or permitted under this Agreement must be in writing and must be delivered or sent by overnight express mail, courier service, electronic mail or facsimile transmission addressed as follows:

If to the Company:

FirstEnergy Service Company
76 South Main Street
Akron, OH 44308
Attn: Victoria Nofziger
Telephone: 330-384-4684
Fax: 330-761-4281
Email: vmnofziger@firstenergycorp.com

If to the Customer:

City of Norwalk
201 Plank Rd
Norwalk, OH 44857
Attn: Josh Snyder
Telephone: 419.663.6735
Fax:
Email: pw-eng@accnorwalk.com

or to such other person at such other address as a Party may designate by like notice to the other Party. Notice received after the close of the business day will be deemed received on the next business day; provided that notice by facsimile transmission will be deemed to have been received by the recipient if the recipient confirms receipt telephonically or in writing.

8. **Authority to Act.** The Parties represent and warrant that they are represented by counsel in connection with this Agreement, have been fully advised in connection with the execution thereof, have taken all legal and corporate steps necessary to enter into this Agreement, and that the undersigned has the authority to enter into this Agreement, to bind the Parties to all provisions herein and to take the actions required to be performed in fulfillment of the undertakings contained herein.
9. **Non-Waiver.** The delay or failure of either party to assert or enforce in any instance strict performance of any of the terms of this Agreement or to exercise any rights hereunder conferred, shall not be construed as a waiver or relinquishment to any extent of its rights to assert or rely upon such terms or rights at any later time or on any future occasion.
10. **Entire Agreement.** This Agreement, along with related exhibits, and the Company's Rider DSE, or its equivalent, as amended from time to time by the Commission, contains the Parties' entire understanding with respect to the matters addressed herein and there are no verbal or collateral representations, undertakings, or agreements not expressly set forth herein. No change in, addition to, or waiver of the terms of this Agreement shall be binding upon any of the Parties unless the same is set forth in writing and signed by an authorized representative of each of the Parties. In the event of any conflict between Rider DSE or its equivalent and this document, the latter shall prevail.
11. **Assignment.** Customer may not assign any of its rights or obligations under this Agreement without obtaining the prior written consent of the Company, which consent will not be unreasonably withheld. No assignment of this Agreement will relieve the assigning Party of any of its obligations under this Agreement until such obligations have been assumed by the assignee and all necessary consents have been obtained.
12. **Severability.** If any portion of this Agreement is held invalid, the Parties agree that such invalidity shall not affect the validity of the remaining portions of this Agreement, and the Parties further agree to substitute for the invalid portion a valid provision that most closely approximates the economic effect and intent of the invalid provision.
13. **Governing Law.** This Agreement shall be governed by the laws and regulations of the State of Ohio, without regard to its conflict of law provisions.
14. **Execution and Counterparts.** This Agreement may be executed in multiple counterparts, which taken together shall constitute an original without the necessity of all parties signing the same page or the same documents, and may be executed by signatures to electronically or telephonically transmitted counterparts in lieu of original printed or photocopied documents. Signatures transmitted by facsimile shall be considered original signatures.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their duly authorized officers or representatives as of the day and year set forth below.

Ohio Edison Company

(Company)

By: John C. Langin

Title: V.P. Of Energy Efficiency

Date: 12-10-12

City of Norwalk

(Customer)

By: Joshua Rodighiero

Title: Public Works Director

Date: 10-4-12

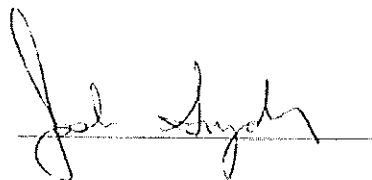
Affidavit of City of Norwalk -- Exhibit _A_

STATE OF OHIO)
) SS:
COUNTY OF Huron)

I, Josh Snyder, being first duly sworn in accordance with law, deposes and states as follows:

1. I am the Director of Public works of City of Norwalk ("Customer") As part of my duties, I oversee energy related matters for the Customer.
2. The Customer has agreed to commit certain energy efficiency projects to Ohio Edison Company ("Company"), which are the subject of the agreement to which this affidavit is attached ("Project(s)").
3. In exchange for making such a commitment, the Company has agreed to provide Customer with Cash ("Incentive"). This Incentive was a critical factor in the Customer's decision to go forward with the Project(s) and to commit the Project(s) to the Company.
4. All information related to said Project(s) that has been submitted to the Company is true and accurate to the best of my knowledge.

FURTHER AFFIANT SAYETH NAUGHT.



Sworn to before me and subscribed in my presence this 30th day of Nov., 2012.

Valerie Stebel
Notary



VALERIE STEBEL
NOTARY PUBLIC, STATE OF OHIO
My Commission Expires
August 14, 2017

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

2/12/2013 11:19:55 AM

in

Case No(s). 13-0033-EL-EEC

Summary: Application electronically filed by Ms. Lindsey E Sacher on behalf of Ohio Edison Company and City of Norwalk