Ohio | Public Utilities Commission

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

Case No.: 18-0025-EL-EEC

Mercantile Customer:	Northeast Ohio Regional Sewer District
Electric Utility:	The Cleveland Electric Illuminating Company
Program Title or Description:	EMSC upgrades

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 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 for a period of up to 12 months will also qualify for the 60-day automatic approval. However, all applications requesting an exemption from the EEDR rider for longer than 12 months must provide additional information, as described within the Historical Mercantile Annual Report Template, that demonstrates additional energy savings and the continuance of the Customer's energy efficiency program. This information must be provided to the Commission at least 61 days prior to the termination of the initial 12 month exemption period to prevent interruptions in the exemption period.

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 altered or 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:Northeast Ohio Regional Sewer District

Principal address:3900 Euclid Avenue, Cleveland OH 44115

Address of facility for which this energy efficiency program applies:4747 E49th st. Cuyahoga Hts. OH 44125

Name and telephone number for responses to questions:Jenita Warner, 216-881-6600

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: The Cleveland Electric Illuminating 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 failed equipment which has no useful life remaining. 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: 1,723,071 kWh

2) If you checked the box indicating that the customer installed new equipment to replace failed equipment which had no useful life remaining, then calculate the annual savings [(kWh used by new standard equipment) – (kWh used by the optional 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 standard new equipment) – (kWh used by optional 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. **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.

Annual savings: _____ kWh

Section 4: Demand Reduction/Demand Response Programs

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

☐ This project does not include peak demand reduction savings.

☒ 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?

2/1/16

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

159 kW

Section 5: Request for Cash Rebate Reasonable Arrangement, Exemption from Rider, or Commitment Payment

Under this section, check all boxes that apply and fill in all corresponding blanks.

A) The customer is applying for:

☒ A cash rebate reasonable arrangement.

☐ An exemption from the energy efficiency cost recovery mechanism implemented by the electric utility.

☐ Commitment payment

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

A cash rebate reasonable arrangement.

☒ A cash rebate of $64,616. (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.)

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.)

☐ 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 12 month period, the customer will need to complete, and file within this application, the Historical Mercantile Annual Report

Template to verify the projects energy savings are persistent.

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

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.

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

Case No.: 18-0025-**EL-EEC**

State of Ohio :

Jenita Warner, Affiant, being duly sworn according to law, deposes and says that:

1. I am the duly authorized representative of:

   Northeast Ohio Regional Sewer District
   [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 4th day of December, 2017 Month/Year

Signature of official administering oath

KATARINA WAAG, ASST. General Counsel
Print Name and Title

My commission expires on n/a

NOTARY PUBLIC STATE OF OHIO

KATARINA K. WAAG, Attorney At Law
Notary Public, State of Ohio
My Commission has no expiration date
Sec. 147.03 R.C.

Exhibit 1

Customer Legal Entity Name: Northeast Ohio Regional Sewer District

Site Address: Environmental and Maintenance Services Center
Principal Address: 4747 E 49th St

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	Energy Savings Program for NEORSD EMSC: Laboratory Upgrades	Several projects implemented as part of the NEORSD EMSC Energy Savings Program were designed to conserve electricity. Laboratory Upgrades and Optimization replaced air valves, replaced reheat coils with larger capacity selections. Air flow settings were adjusted as required to provide adequate pressurization, new fan filter units were installed, air distribution scheme was reworked to allow air flows to mix prior to being introduced into the space, a complete re-balance and retro-commissioning process occured and Zone Presence Sensors were installed to indicate when a hood was needed	Entire lab project was monitored by a whole meter audit of the facility through the building BMS.	It varies by equipment piece. The lab was fully functioning at the time of replacement and all had useful life left at the time of replacement.	N/A
2	Energy Savings Program for NEORSD EMSC: Air Handling Unit Replacements	Several projects implemented as part of the NEORSD EMSC Energy Savings Program were designed to conserve electricity. These projects include Air Handling Unit Replacement. The Air Handling Unit Replacement replace 5 units with new units with full economizer capability, code compliant filtration, high efficiency motors and variable frequency drives. All units were tied to a complete direct digital control system. Specific Make/Model of Equipment installed includes: Ruskin Industrial Control Damper CD80AF1, 2 Trane Performance Climate Changers Model # CSA025UA, 2 Trane Performance Climate Changers Model # CSAA021UA Price Industries AD, Fans with VAV, Phoenix Controls.	Please see the attached Year-End Audit Report	Various by equipment. All were functional at the time of replacement. Estimated replacement within 2-5 years depending on the equipment and maintenance options.	N/A
3	Energy Savings Program for NEORSD EMSC: Main Building Lighting and Occupancy Sensors, Exterior Lighting	Several projects implemented as part of the NEORSD EMSC Energy Savings Program were designed to conserve electricity. These projects included Facility-Wide Lighting retrofits. The Lighting retrofits included replacing 32W T8 flourescent lamps with 25W T8s, 7 HID fixtures with T5 high output high bay fixtures. Occupancy controls were installed in the laboratory rooms, equipment wash, bathrooms and locker rooms. Metal Halied HID parking fixtures and wall packs were removed and replaced with appropriate LED fixtures using Lithonia and Gardco LED Fixtures.	0	We would replace fixtures as-needed as part of general maintenance. All lights were fully functional at the time of the project.	N/A

Exhibit 2

Customer Legal Entity Name: Northeast Ohio Regional Sewer District
Site Address: Environmental and Maintenance Services Center
Principal Address: 4747 E 49th St

	Unadjusted Usage, kwh (A)	Weather Adjusted Usage, kwh (B)	Weather Adjusted Usage with Energy Efficiency Addbacks, kwh (c) *Note 1*
2016	95,076,755	95,076,755	96,653,883
2015	96,883,912	96,883,912	96,883,912
2014	109,698,666	109,698,666	109,698,666
Average	**100,553,111**	**100,553,111**	**101,078,820**

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) $ *Note 2*	Commitment Payment $
1	Energy Savings Program for NEORSD EMSC: Laboratory Upgrades	02/01/2016	$373,078	$186,539	565,723	565,723	65	$28,286	$21,215	
2	Energy Savings Program for NEORSD EMSC: Air Handling Unit Replacements	02/01/2016	$524,397	$262,199	972,674	972,674	69	$48,634	$36,476	
3	Energy Savings Program for NEORSD EMSC: Main Building Lighting and Occupancy Sensors, Exterior Lighting	02/01/2016	$157,279	$78,640	184,674	184,674	25	$9,234	$6,926	
					-	-	-			
					-	-	-			
					-	-	-			
					-	-	-			
		Total	**$1,054,754**		**1,723,071**	**1,723,071**	**159**	**$86,154**	**$64,616**	**$0**

Docket No. NEORSD – 18-0025
Site: 4747 E 49th St

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, not to exceed the lesser of 50% of the project cost or $250,000 per project.

Exhibit 3

UCT = Utility Avoided Costs / Utility Costs

Project	Utility Avoided Cost $ (A)	Utility Cost $ (B)	Cash Rebate $ (C)	Administrator Variable Fee $ (D)	Total Utility Cost $ (E)	UCT (F)
1	$ 280,740	$ 1,350	$ 21,215	$5,657	$ 28,222	**9.9**
2	$ 482,689	$ 1,350	$ 36,476	$9,727	$ 47,552	**10.15**
3	$ 91,644	$ 1,350	$ 6,926	$1,847	$ 10,122	**9.05**
Total	**855,074**	**4,050**	**64,616**	**$17,231**	**85,896**	**10.0**

Notes

(A) Represents NPV of avoided energy and capacaity costs over a 10 year life multiplied by the annual project savings.

(B) 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.

(C) This is the amount of the Rebate Payment paid to the customer for this

(D) Based on approximate Administrator's variable compensation for purposes of calculating the UCT, actual compensation may be less.

(E) = (B) + (C) + (D)

(F) =(A) / (E)

Northeast Ohio Regional Sewer District ~ Environmental and Maintenance Services Center
Docket No. NEORSD – 18-0025
Site: 4747 E 49th St

SECTION 4: SUMMARY OF ENERGY CONSERVATION MEASURES

Laboratory Upgrades and Optimization

Brewer-Garrett thoroughly examined the existing lab exhaust/ventilation systems currently serving the laboratory spaces at the EMSC. Recent renovations resulted in the installation of state-of-the-art equipment and a modern automation system that is capable of providing an optimized lab environment. Unfortunately, many of these components were misapplied or improperly sized resulting in less than optimal performance.

Brewer-Garrett found many of the supply/exhaust valve arrangements to be a mix of slow and fast acting actuators which can negatively affect required pressure relationships. It was also identified that many of the electric reheat coils tasked with providing zone-level comfort were undersized at peak flow conditions. While the original design intent was to offer a high-efficiency variable air volume system, the numerous issues including those described above dictated that the system was commissioned with a constant volume strategy. Although functional, the constant volume option significantly increased the consumption of costly utilities.

Additional areas of concern were observed during Brewer-Garrett's system review. Air change and velocity rates were reviewed and, in some cases, found to be on the low end of the allowable range. In other cases, the pressure relationships with adjacent spaces were designed to be positive by as little as 100 cfm. Best practice, particularly with the style of air valve that was specified, is a minimum of 300 cfm. These conditions, paired with other system characteristics, limited the system's ability to provide proper air balance throughout the lab areas.

Reports of noise and temperature complaints also led Brewer-Garrett to review the air distribution scheme. In certain areas, recycling type Fan Filter Units were used to filter room air and recirculate this neutral temperature air back into the space. The ventilation air was then supplied directly into the same space at a different temperature creating an uncomfortable temperature gradient across the space. The massive volumes of air required for laboratory applications resulted in many of the diffusers and grilles being selected, based on the design air flows, with a Noise Criteria (NC) rating of nearly 50 with industry standards being NC 25.

The above described conditions led Brewer-Garrett to develop a total laboratory solution that combined repurposing, where possible, usable system components with the replacement of critical components where necessary. Brewer-Garrett's solution addressed each issue described above. Selected air valves were replaced to offer a matched response that will maintain proper pressure relationships. Where required, reheat coils were replaced with larger capacity selections. Air flow settings were adjusted as required to provide adequate pressurization and meet regulatory requirements with new Fan Filter Units being installed where they were necessary. The air distribution scheme was reworked to allow air flows to mix prior to being introduced into the space. This evened out the described temperature gradient and eliminate areas of discomfort. Diffusers and grilles were replaced with selections that offer lower NC

ratings to reduce noise within the space. A complete air re-balance and retro-commissioning process occurred to ensure system functionality.

Once these equipment and design upgrades were executed, the system was converted and recommissioned as a complete variable air volume system. This allows the supply air volume to be matched up with the exhaust air volume so that the lab spaces do not go into an overly negative airflow condition. Face velocity sensors were provided and systems will modulate as required to maintain the design face velocity for each lab hood. As the hood sash position is raised or lowered, the hood controllers will modulate the air valves as required to maintain the face velocity. The face velocity for each hood was adjusted as required to capture all fumes generated within the hood while the hood operator is present.

Brewer-Garrett installed a device called a Zone Presence Sensor (ZPS) which is an occupancy sensor designed to indicate whenever a user or inert object (lab cart, etc) is located in front of the hood. The ZPS is designed to provide a fast response (less than 1 second reaction time) to increase the exhaust airflow rate to maintain the designated velocity whenever the space at the front of the hood is occupied. When the space becomes vacant, the airflow rate is reduced to maintain a face velocity of 60 fpm at the hoods reducing airflow requirements and safely conserving energy.

Finally, the laboratory control system is now interfaced with the automation system as part of the Controls Integration Solution describe later in this section to insure that any alarm conditions are noted and can be addressed by the Facility's staff. The result of this solution is a functional lab space that meets regulatory requirements while offering a safe and comfortable environment for staff.

Air Handling Unit Replacement (AHU 1-5)

The general office area of the EMSC facility utilized five (5) air handling units to move conditioned air throughout the occupied areas with electric heat as the primary heating source. These units were also responsible for providing outdoor air to these spaces at rates dictated by building codes. These units were nearly 30 years old and were showing significant signs of deterioration and age. In addition to extended age, these units suffered from a variety of operational issues. One of the primary deficiencies for each of the five (5) units was controllability. The limited controls that did exist were antiquated, offering less accuracy than modern digital controls. It was also discovered that, while each unit was sized properly to provide economizing capability, misaligned damper linkages left those units without the ability to take full advantage of this energy saving control strategy. Economizing control enables an air handling unit, during times of milder outdoor air temperature, to utilize this outside air for cooling instead of costly chilled water. Frozen dampers also reduce the unit's ability to provide the code required quantity of outdoor air, which can lead to indoor air quality issues and higher utility costs. Also, primary seams and connection points at the units were leaking air; resulting in a complete waste of the conditioned air.

Brewer-Garrett designed, reconfigured, and replaced these units to ensure improved future operation and energy efficiency. All units were installed with full economizer capability, code compliant filtration, high efficiency motors and variable frequency drives. All units were tied into a complete direct digital control (DDC) system and all necessary programming was provided as required to offer full control and monitoring of each unit from the building automation system. This allows the maintenance staff to monitor conditions remotely and allow any alarms or staff complaints to be responded to more quickly.

The unit replacements and modifications provides the District with a solution for the necessary replacement of this critical asset.

Heating Water Boiler Plant

The EMSC facility was designed to utilize electricity for general heating throughout the building. While the District had a standing "flat rate" style contract through 2016, changes in the electricity marketplace resulted in many consumers experiencing drastic increases in their electric rates. Although the District, as one of the largest electrical consumers in the areas, has significant purchasing power, all consumers were being advised to anticipate an increase in their electric rates. With this in mind, Brewer-Garrett developed a scalable boiler plant solution which provides a long-term natural gas alternative to electric heat. Brewer-Garrett installed two (2) high efficiency condensing style boilers in the lower level mechanical room with space and gas service available for a future third boiler. These boilers were initially sized to handle the heating load associated with new AHUs 1-4. Each boiler was provided with modern controls and fully integrated into the building automation system to allow for remote controllability and monitoring. As part of this option, new AHUs 1-4 are supplied with hot water heating coils in lieu of electric heating coils. Piping was extended to each of the AHUs to allow heating water to act as their primary heating source. As this piping system is distributed, allocations in pipe size were made for future extension to all existing electric reheat systems. This provides the District with the option to extend heating water to all other areas of the building as future expansions/renovations occur.

Controls System

The District's old automation platform was a combination of TAC and Vykon Niagara with a majority of the EMSC facility was still being controlled by an outdated American Auto Matrix system. These systems were installed by multiple automation contractors and as a result, the installed system was challenging to support, manage and operate. In addition, the lack of consistency in programming practices has made it difficult if not impossible for the staff to effectively troubleshoot problems or manage energy consumption.

Total integration of facilities into one common open protocol platform has become increasingly important to effectively maintain, monitor and expand these systems without being "handcuffed" to vendor specific software and protocols. As part of the installed solution, Brewer-Garrett executed a full integration of existing system components into the open protocol Niagara-based system through execution of license modifications. Ultimately, this fully integrated system includes the three existing sites that are currently on the districts' Enterprise server along with the addition of the GJM facility, EMSC Labs/Chiller as well as the remainder of the EMSC facility currently controlled through the legacy American Auto Matrix System.

In order to achieve the integration of the legacy system installed at EMSC, Brewer-Garrett upgraded the programmable controllers associated with AHUs 1-4. In addition, this solution included provisions for a software driver to integrate the legacy VAV controllers and installation of return air CO2 sensors on the air handling units. The ability to effectively monitor return air CO2 levels as well as individual zone level performance allows for the implementation of modern energy efficient control strategies including demand control ventilation, discharge air temperature resets and duct static pressure resets.

As these automation system upgrades at EMSC occurred, an optimization process was performed to verify that all components are controlling properly and correct set points are in place. As facilities age and expand, the equipment making up the infrastructure has a tendency to deviate from the original design intent. This deviation can result in significant energy loss over time. For example, valves can fail and outside air dampers become misaligned allowing excess air flow that must now be constantly conditioned. During the optimizing process, Brewer-Garrett started by verifying that all set points and sequences of operation were correct and optimized to meet the building's objective. Brewer-Garrett worked with the maintenance staff to determine the most efficient way to operate the system while still meeting the needs of the building.

Main Building / Fleet Services Lighting and Occupancy Control

The audit at the Main Building and the Fleet Service Building identified 32W T8 fluorescent lamps with first generation electronic ballasts, and 34W T12 fluorescent lamps with electromagnetic ballasts. The SSMO area in the Main Building had 7 HID fixtures. Brewer-Garrett supplemented the lighting audit with an occupancy study to determine the normal operation hours of the building, and to discern any locations that would benefit from occupancy sensors.

Brewer-Garrett replaced the existing T12 and T8 fixtures with new 25W T8 fixtures. The replacement of the fixtures will lower the overall energy costs of the facilities, remove almost all maintenance costs over the lives of the new fixtures, and will maintain or exceed recommended healthy light levels.

Brewer-Garrett replaced the HID lighting in the SSMO with T5 high output high bay fixtures. This drastically improved visibility and it will reduce energy costs. Lastly, the occupancy study revealed several excellent locations for occupancy based control. The largest of these are: the laboratory rooms, equipment wash, bathrooms, and locker rooms.

LED Site Lighting

Brewer-Garrett took an extensive look at the parking lot, walkway, and building exterior lighting throughout the District's facility. The District used Metal Halide HID technology to light the exterior areas of its campus. Brewer-Garrett removed these HID parking fixtures and wallpacks, and replaced them with an appropriate LED fixture. Additionally, the HID floodlights that were located around the storage garage were removed, and a new wall-pack was added to the northeast side of the maintenance garage to bring that area up to code and allow the lighting around the maintenance garage to be more uniform. This retrofit will reduce the energy consumption of the District's exterior lighting by over 50%. At dusk to dawn operation, these LED fixtures will operate for the next 17 years with no maintenance over a 70,000 hour life. A full model was created using lighting modeling software and can be seen in the appendix. The HID to LED replacement proposed far exceeds the Illuminating Engineering Society recommended standards of 0.5 foot-candles for parking lot lighting.

SECTION 5: SUMMARY OF SAVINGS

NEORSD EMSC Facility ~ Performance Year 1 ~ February 2016 - January 2017

Summary of Savings

Electric		
KWH Used In Base Year	4,698,356	KWH
Baseline	5,018,244	KWH
Actual Usage	2,083,286	KWH
Total KWH Saved	2,934,958	KWH
Total Dollars Saved	$186,312	

TOTAL SAVINGS INCLUDING GAS CONVERSION

Natural Gas		
MCF Used In Base Year	4,713	MCF
Baseline	3,458	MCF
Actual Usage	2,802	MCF
Total MCF Saved	656	MCF
Total Dollars Saved	$6,570	

Stipulated Savings	
Operational	$19,452
Capital Cost Avoidance	$106,514
Total Dollars Saved	$125,966

Total Actual Savings	
Installation Period (Electric and Natural Gas Savings)	$139,786
Performance Year 1	$318,848
Total Dollars Saved	**$458,634**

Total Guaranteed Savings	Performance Year 1	$232,192

Table 5a

NEORSD EMSC Facility ~ Performance Year 1 ~ February 2016 - January 2017

Electricity Savings

Electricity Base Year Units KWH

	February	March	April	May	June	July	August	September	October	November	December	January	Total
KWH													
NEORSD EMSC Facility	379,694	400,000	400,000	404,395	449,667	455,490	325,000	309,517	378,051	375,000	360,963	460,579	4,698,356
Total KWH	379,694	400,000	400,000	404,395	449,667	455,490	325,000	309,517	378,051	375,000	360,963	460,579	4,698,356

BASELINE KWH

Electricity Base Year Cost $

	February	March	April	May	June	July	August	September	October	November	December	January	Total
Cost $													
NEORSD EMSC Facility	$18,623	$17,735	$21,662	$21,488	$9,814	$26,391	$21,756	$22,920	$22,920	$23,172	$25,766	$26,100	$258,347
Total Cost $	$18,623	$17,735	$21,662	$21,488	$9,814	$26,391	$21,756	$22,920	$22,920	$23,172	$25,766	$26,100	$258,347

Electricity Base Year Unit Cost $/KWH

	February	March	April	May	June	July	August	September	October	November	December	January
Unit Cost $/KWH												
NEORSD EMSC Facility	$0.057	$0.057	$0.057	$0.057	$0.057	$0.057	$0.057	$0.057	$0.057	$0.057	$0.027	$0.057

NEORSD EMSC Facility ~ Performance Year 1 ~ February 2016 - January 2017

Electricity Savings

Electricity Actual Performance Year Units KWH

	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Total
KWH													
NEORSD EMSC Facility	182,154	195,384	158,745	159,558	160,911	169,647	179,127	157,468	146,925	165,203	205,167	202,999	2,083,286
Total KWH	182,154	195,384	158,745	159,558	160,911	169,647	179,127	157,468	146,925	165,203	205,167	202,999	2,083,286

ACTUAL USAGE KWH →

Electricity Actual Performance Year Cost $

	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Total
Cost $													
NEORSD EMSC Facility	$11,578	$12,141	$10,095	$10,111	$10,528	$10,736	$11,335	$9,965	$9,298	$10,454	$12,983	$12,846	$132,070
Total Cost $	$11,578	$12,141	$10,095	$10,111	$10,528	$10,736	$11,335	$9,965	$9,298	$10,454	$12,983	$12,846	$132,070

Electricity Actual Performance Year Unit Cost $/KWH

	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17
Unit Cost $/KWH												
NEORSD EMSC Facility	$0.064	$0.062	$0.064	$0.063	$0.065	$0.063	$0.063	$0.063	$0.063	$0.063	$0.063	$0.063

METERED BASELINE 4,698,356 KWH (see page 12)

METERED ACTUAL (AFTER CHANGES) 2,083,286 KWH (see top this page)

KWH REDUCTION (INCLUDING GAS) 2,615,070 KWH

REDUCTION BASED ON EXCLUSION OF SAVINGS DUE TO ELECTRIC—GAS CONVERSION IN AHU 1-4 HOT WATER HEATING COILS IN LIEU OF ELECTRIC COILS 1,076,673 EQUIVALENT KWH

1,538,397 FINAL SAVINGS W/O LIGHTING

Savings due to lighting (see lighting calcs) 184,674

1,723,397 TOTAL SAVINGS (kWh)

18-0025 NEORSD DEMAND REDUCTION DETERMINATION

PG 1 of 2

FirstEnergy

Project #1

PROJECT INFORMATION SHEET

Northeast Ohio Regional Sewer District

Project Name: Energy Savings Program for NEORSD EMSC: Laboratory Upgrades

Project In-Service Date (MM/DD/YYYY): 2/1/2016
If more than one date, Please use most current

Please Select ***Account Assignment Number*** associated with this Project (found on the ***Customer Usage Summary Tab***) 1

Please provide a narrative description of your program including, but not limited to, make, model, and year of any installed and replaced equipment:

Several projects implemented as part of the NEORSD EMSC Energy Savings Program were designed to conserve electricity. Laboratory Upgrades and Optimization replaced air valves, replaced reheat coils with larger capacity selections. Air flow settings were adjusted as required to provide adequate pressurization, new fan filter units were installed, air distribution scheme was reworked to allow air flows to mix prior to being introduced into the space, a complete re-balance and retro-commissioning process occured and Zone Presence Sensors were installed to indicate when a hood was needed.

Total Project Cost: $373,078

Type of Project:

(Check One That Applies)

- (•) **Early replacement of fully functioning equipment with new equipment**
- ( ) **Installation of new equipment to replace failed equipment**
- ( ) **Installation of new equipment for new construction or facility expansion**
- ( ) **Behavioral modification or operational improvement**

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.

It varies by equipment piece. The lab was fully functioning at the time of replacement and all had useful life left at the time of replacement.

Project Classification:

(Check all that apply)

- [ ] **Lighting**
- [ ] **Motor**
- [x] **HVAC**
- [ ] **Air Compressor**
- [ ] **Controls**
- [ ] **Refrigeration**
- [ ] **Process Improvement**
- [ ] **Water Heating**
- [x] **Other/Custom**

If Other or Custom Please Explain:

The Laboratory upgrade was a combination of air handling improvements, controls and commissioning. Most of the energy savings associated with this project resulted from controls that drastically reduced the number of air changes per hour, resulting in an peak lab optimization.

PROJECT INFORMATION SHEET

Equipment Information:

	New	Old Equipment
Equipment specifications (Model no., size, etc.):	Various CFM, varibale-air-volume fan boxes	Various CFM, constant-volume fans
Number of units:	24	24
Efficiency rating (R-Value, SEER/EER rating, motor efficiency, etc.)	Various	Various
What was the estimated remaining useful service life:	Various	Various

Operational Information for Equipment:

Describe the operational period of the equipment (i.e. months, days, hours): 8760

Does this project produce energy savings Monday through Friday during the months of June through August from the hours of 3 PM to 6 PM: (•) Yes ( ) No

For a new facility, please attach an itemized summary sheet that lists all installed measures that exceed current building standards

For operational improvement projects, provide a detailed description of all operational improvements and/or schedule changes for achievement of conservation efforts:

Energy Savings Information:

Equipment	Kwh usage	Yearly hours of operation	Demand (kW)
Old	1,188,062	8,760	136
Standard			
New	622,339	8,760	71

Annual reduced kWh attributable to this project:	565,723 kWh	**kW demand reduction attributable to this project:**	65	kW
Annual reduced kWh *eligible for an incentive*:	565,723 kWh			

Project #1 Demand Reduction

65 KW

Please describe 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.

Entire lab project was monitored by a whole meter audit of the facility through the building BMS.

Please describe all documents that provide proof of purchase and verification that project was completed and is in-service. Also, provide an accounting of expenditures for this project. (Must attach all described documents with submission of application). *Label all pages deemed to be confidential*

Construction close-out documents and performance report is included as proof of purchase and verification of completed project.

18-0025 NEORSD DEMAND REDUCTION DETERMINATION

FirstEnergy

Project #2

PROJECT INFORMATION SHEET

Northeast Ohio Regional Sewer District

Project Name: Energy Savings Program for NEORSD EMSC: Air Handling Unit Replacements

Project In-Service Date (MM/DD/YYYY): 2/1/2016

If more than one date, Please use most current

Please Select *Account Assignment Number* associated with this Project (found on the *Customer Usage Summary Tab*) 1

Please Provide a narrative description of your program including, but not limited to, make, model, and year of any installed and replaced equipment:

Several projects implemented as part of the NEORSD EMSC Energy Savings Program were designed to conserve electricity. These projects include Air Handling Unit Replacement. The Air Handling Unit Replacement replace 5 units with new units with full economizer capability, code compliant filtration, high efficiency motors and variable frequency drives. All units were tied to a complete direct digital control system. Specific Make/Model of Equipment installed includes: Ruskin Industrial Control Damper CD80AF1, 2 Trane Performance Climate Changers Model # CSA025UA, 2 Trane Performance Climate Changers Model # CSAA021UA Price Industries AD, Fans with VAV, Phoenix Controls.

Total Project Cost: $524,397

Type of Project:

(Check One That Applies)

(•) Early replacement of fully functioning equipment with new equipment ( ) Installation of new equipment to replace failed equipment ( ) Installation of new equipment for new construction or facility expansion ( ) Behavioral modification or operational improvement

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.

Various by equipment. All were functional at the time of replacement. Estimated replacement within 2-5 years depending on the equipment and maintenance options.

Project Classification:

(Check all that apply)

☐ Lighting ☐ Motor ☑ HVAC ☐ Air Compressor ☐ Controls ☐ Refrigeration ☐ Process Improvement ☐ Water Heating ☑ Other/Custom

If Other or Custom Please Explain:

The new AHUs will be natural gas heat as compared to the old AHUS, which were electric heat

PROJECT INFORMATION SHEET

Equipment Information:

	New	Old Equipment
Equipment Specifications (Model No., Size, etc.):	AHU-1 & AHU-2 are 10,000 CFM (SAF of 10HP), AHU-3 and AHU-4 are 13,000 CFM	AHU-1 & AHU-2 were 10,000 CFM, AHU-3 and AHU-4 were 13,000 CFM, and AHU-5 was 5,000
Number of Units:	5	5
Efficiency Rating (R-Value, SEER/EER Rating, Motor Efficiency, etc.)		
What was the estimated remaining useful service life:		

Operational Information of Equipment:

Describe the operational period of the equipment (i.e. Months, Days, Hours): 4380

Does this project produce energy savings Monday through Friday during the months of June through August from the hours of 3 PM to 6 PM: (•) Yes ( ) No

For a New Facility, Please attach an itemized summary sheet that lists all installed measures that exceed current building standards

For operational improvement projects, provide a detailed description of all operational improvements and/or schedule changes for achievement of conservation efforts:

In addition, the new AHUs changed from inlet guide vanes to variable air volume fan units, reduced the operating scehdule and outside air percentage, and converted from electric heat to natural gas.

Energy Savings Information:

Equipment	Kwh Usage	Yearly hours of operation	Demand (kW)
Old	1,337,030	8,760	152
Standard			
New	364,356	4,380	83

Annual reduced kWh attributable to this project:	972,674	kWh	**kW demand reduction attributable to this project:**	69	kW
Annual reduced kWh *eligible for an incentive*:	972,674	kWh			

Please describe 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.

Please see the attached Year-End Audit Report

Please describe all documents that provide proof of purchase and verification that project was completed and is in-service. Also, provide an accounting of expenditures for this project. (Must attach all described documents with submission of application). *Label all pages deemed to be confidential*

Construction close-out documents and performance report is included as proof of purchase and verification of completed project.

→ Project #2 Demand Reduction 69 KW.

Summary

Proj #1 65
Proj #2 69
Lighting 25
159 KW

Retrofit and New Construction Lighting Worksheet

Please enter this information on the General Information tab

Customer Name	Northeast Ohio Regional Sewer District
Building Address	4747 E 49th St
Calculation Method (New Construction)	Not Applicable

* Indicates a required field

Line Item	*Project Type (drop down menu)	Floor	Area Description	*Interior or Exterior Fixture? (drop down menu)	*Facility/Area Type (drop down menu)	*Space Cooling Type (drop down menu)	*Space Heating Type (drop down menu)	*Pre Fixture Quantity	*Pre Fixture Code	Pre Watts per Fixture (lookup from Wattage Table)	Pre kW per Space (Calculated)	Existing Control Type (if no controls leave blank)
1	Retrofit	1	Parking Lot/Roadway	Exterior	Parking Lot	Uncooled	Unheated	21	MH400/1	458	9.62	
2	Retrofit	1	Parking Lot/Roadway	Exterior	Parking Lot	Uncooled	Unheated	8	MH150/1	190	1.52	
3	Retrofit	1	EMSC Pedestrian Areas	Exterior	Outdoor - Other	Uncooled	Unheated	14	MH250/1	295	4.13	
4	Retrofit	1	EMSC Pedestrian Areas	Exterior	Outdoor - Other	Uncooled	Unheated	12	MH150/1	190	2.28	
5	Retrofit	1	EMSC Pedestrian Areas	Exterior	Outdoor - Other	Uncooled	Unheated	2	MH100/1	128	0.26	
6	Retrofit	1	Flag Pole	Exterior	Outdoor - Other	Uncooled	Unheated	2	MH400/1	458	0.92	
7	Retrofit	1	Security Light	Exterior	Outdoor - Other	Uncooled	Unheated	1	H80/1	90	0.09	
8	Retrofit	1	Parking Lot/Roadway	Exterior	Parking Lot	Uncooled	Unheated	2	MH150/1	190	0.38	
9	Retrofit	1	Flag Pole	Exterior	Outdoor - Other	Uncooled	Unheated	1	MH400/1	458	0.46	
10	Retrofit	1	Parking Lot/Roadway	Exterior	Parking Lot	Uncooled	Unheated	16	MH400/1	458	7.33	
11	Retrofit	1	Vehicle Maintenace	Interior	Auto Repair	Air Conditioned	Electric Heat	28	F42LE	71	1.99	
12	Retrofit	1	Vehicle Maintenace	Interior	Auto Repair	Air Conditioned	Electric Heat	33	F42LE	71	2.34	
13	Retrofit	1	Vehicle Maintenace	Interior	Auto Repair	Air Conditioned	Electric Heat	6	F43SILL-H	105	0.63	
14	Retrofit	1	Vehicle Maintenace	Interior	Auto Repair	Air Conditioned	Electric Heat	18	F44ILL	112	2.02	
15	Retrofit	2	Vehicle Maintenace	Interior	Auto Repair	Air Conditioned	Electric Heat	6	F43ILL	89	0.53	
16	Retrofit	1	Vehicle Maintenace	Interior	Auto Repair	Air Conditioned	Electric Heat	3	F41ILL	31	0.09	
17	Retrofit	1	EMSC	Interior	Office - Large	Air Conditioned	Electric Heat	17	F42LE	71	1.21	
18	Retrofit	1	EMSC Maint Shop and Service Core	Interior	Office - Large	Air Conditioned	Electric Heat	20	F42LE	71	1.42	
19	Retrofit	1	EMSC Shipping and Receiving	Interior	Office - Large	Air Conditioned	Electric Heat	31	F42ILL	59	1.83	
20	Retrofit	1	EMSC Equip Wash	Interior	Office - Large	Air Conditioned	Electric Heat	10	F44ILL	112	1.12	
21	Retrofit	1	EMSC High Bay Area	Interior	Office - Large	Air Conditioned	Electric Heat	7	HPS200/1	250	1.75	
22	Retrofit	1	EMSC: Closet/Office	Interior	Office - Large	Air Conditioned	Electric Heat	3	F42LL	60	0.18	
23	Retrofit	1	EMSC 1st floor various	Interior	Office - Large	Air Conditioned	Electric Heat	135	F44III	112	15.12	
24	Retrofit	LL and 1	Stairways, Computer Room, Steam Room	Interior	Office - Large	Air Conditioned	Electric Heat	31	F46III-H	144	4.46	
25	Retrofit	1	EMSC Manager Area	Interior	Office - Large	Air Conditioned	Electric Heat	14	F43SILL-H	105	1.47	
26	Retrofit	1	EMSC Various	Interior	Office - Large	Air Conditioned	Electric Heat	26	F43SILL-H	105	2.73	
27	Retrofit	LL and 1	EMSC Secretary Area, Data Storage, Various	Interior	Office - Large	Air Conditioned	Electric Heat	61	F43ILL	89	5.43	
28	Retrofit	1	EMSC Conference Room, Office Near Logistics	Interior	Office - Large	Air Conditioned	Electric Heat	9	F43LL/2	92	0.83	
29	Retrofit	1	EMSC Various, Hallways, Stairwells, Stockroom	Interior	Office - Large	Air Conditioned	Electric Heat	141	F42SILL-H	72	10.15	
30	Retrofit	LL	EMSC Maintenance Shop, Stockroom	Interior	Office - Large	Air Conditioned	Electric Heat	38	F42SILL-H	72	2.74	
31	Retrofit	1M and 1LL	EMSC Various	Interior	Office - Large	Air Conditioned	Electric Heat	174	F42III	59	10.27	
32	Retrofit	1M 1LL	EMSC Hallways, Lockers	Interior	Office - Large	Air Conditioned	Electric Heat	15	F42EE	59	0.89	
33	Retrofit	1M	Various	Interior	Office - Large	Air Conditioned	Electric Heat	3	F42ILL	59	0.18	
34	Retrofit	LL	Rt Mezzanine	Interior	Office - Large	Air Conditioned	Electric Heat	24	F41LL-H	39	0.94	
35	Retrofit	LL	Rt Mezzanine	Interior	Office - Large	Air Conditioned	Electric Heat	1	F41LL-H	39	0.04	

New Construction Space/Building Type | Units - e.g. Square Feet (ft²) If multiple fixture types are used, please only enter the total area/distance/qty once per space. (Area/Distance/Qty, Units) | Lighting Power Density (W/unit) | Baseline kW per Space (kW)

Post Installation (Retrofit)

Line Item	*Post Fixture Quantity	*Post Fixture Category (drop down menu)	*Post Fixture Description (drop down menu)	Incentive Rate (lookup)	Lamps per Fixture	Post Watts per Fixture	Post Fixture Cut Sheet Name	Post Watts per Fixture Lookup	Post kW per Space (kW)	Post Control Type (drop down menu) If no controls are installed on post equipment leave blank
1	21	Exterior LED Fixtures replacing lamp(s) ≤ 250 Watts	Parking Lot/Area Pole Mounted	$0.05 Per kWh	1	99	DSX1 LED 60C	99	2.08	
2	8	Exterior LED Fixtures replacing lamp(s) ≤ 250 Watts	Parking Lot/Area Pole Mounted	$0.05 Per kWh	1	68	DSXD LED 40C	68	0.54	
3	14	Exterior LED Fixtures replacing lamp(s) ≤ 250 Watts	Wall Pack	$0.05 Per kWh	1	104	TWH LED 30C	104	1.46	
4	12	Exterior LED Fixtures replacing lamp(s) ≤ 250 Watts	Wall Pack	$0.05 Per kWh	1	67	TWP LED 20C	67	0.80	
5	2	Exterior LED Fixtures replacing lamp(s) ≤ 250 Watts	Wall Pack	$0.05 Per kWh	1	41	TWR1 LED 2 5	41	0.08	
6	2	Exterior LED Fixtures replacing lamp(s) ≤ 250 Watts	Flood Light	$0.05 Per kWh	1	126	CSFM-48L-70	126	0.25	
7	1	Exterior LED Fixtures replacing lamp(s) ≤ 250 Watts	Pathway/Landscape Fixture	$0.05 Per kWh	1	19	15PAR38/F25	19	0.02	
8	2	Exterior LED Fixtures replacing lamp(s) ≤ 250 Watts	Parking Lot/Area Pole Mounted	$0.05 Per kWh	1	68	DSXD LED 40C	68	0.14	
9	1	Exterior LED Fixtures replacing lamp(s) ≤ 250 Watts	Flood Light	$0.05 Per kWh	1	126	CSFM-48L-70	126	0.13	
10	16	Exterior LED Fixtures replacing lamp(s) ≤ 250 Watts	Parking Lot/Area Pole Mounted	$0.05 Per kWh	1	99	DSX1 LED 60C ...SOK T5M 277	99	1.58	
11	28	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	2	39	...EP2HLSC@227	39	1.09	Occupancy
12	33	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	2	39	...EP2HLSC@227	39	1.29	
13	6	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	3	59	...EP2HLSC@227	59	0.35	
14	18	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	4	78	...EP2HLSC@227	78	1.40	
15	6	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	3	59	...EP2HLSC@227	59	0.35	
16	3	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	1	22	...PA1P32LWSC@12...	22	0.07	
17	17	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	2	39	...EP2HLSC@227	39	0.66	Occupancy
18	10	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	4	78	...EP2HLSC@227	78	0.78	Occupancy
19	31	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	2	39	...EP2HLSC@227	39	1.21	Occupancy
20	10	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	4	78	...EP2HLSC@227	78	0.78	Occupancy
21	7	Fluorescent Fixtures	T5 Fluorescent - High or Low Bay	$0.05 Per kWh	4	232	FG8T5HO	232	1.62	Occupancy
22	3	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	2	39	...EP2HLSC@227	39	0.12	
23	135	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	4	78	...EP2HLSC@227	78	10.53	
24	31	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	4	78	...EP2HLSC@227	78	2.42	
25	14	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	3	59	...EP2HLSC@227	59	0.83	
26	26	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	3	61	...EP2HLSC@227	61	1.59	
27	61	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	3	59	...EP2HLSC@227	59	3.60	
28	9	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	3	61	...EP2HLSC@227	61	0.55	
29	139	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	2	39	...EP2HLSC@227	39	5.42	
30	19	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	4	78	...EP2HLSC@227	78	1.48	
31	174	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	2	39	...EP2HLSC@227	39	6.79	
32	15	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	2	46	...EP2HLSC@227	46	0.69	
33	3	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	2	46	...EP2HLSC@227	46	0.14	
34	12	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	2	39	...EP2HLSC@227	39	0.47	
35	1	Fluorescent Fixtures	T8 Fluorescent - New Fixture	$0.05 Per kWh	1	22	...EP2HLSC@227	22	0.02	

LED Signage Linear Feet (if applicable) | Quantity of Doors (if applicable)

Deemed Energy Savings (kWh)

Line Item	Change in Connected Load (kW)	Use Applicant or Prescribed Hours?	Lighting Schedule	Equipment Full Load Hours (EFLH)	Coincidence Factor	Interactive Factor Demand (IFkw)	Interactive Factor Energy (IFkwh)	Pre Controls ESF	Post Controls ESF	Deemed Demand Savings (kW)	Annual Energy Savings (kWh)	Annual Energy Savings (kWh) Controls Only	Total Incentive	Annual kWh Saved
1	7.54	Prescribed	Use Default Facility Hours	3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	28,896.99	0.00	$1,444.85	28,896.99
2	0.98	Prescribed	Use Default Facility Hours	3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	3,741.01	0.00	$187.05	3,741.01
3	2.67	Prescribed	Use Default Facility Hours	3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	10,249.44	0.00	$512.47	10,249.44
4	1.48	Prescribed	Use Default Facility Hours	3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	5,657.51	0.00	$282.88	5,657.51
5	0.17	Prescribed	Use Default Facility Hours	3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	666.94	0.00	$33.35	666.94
6	0.66	Prescribed	Use Default Facility Hours	3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	2,545.11	0.00	$127.26	2,545.11
7	0.07	Prescribed	Use Default Facility Hours	3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	272.14	0.00	$13.61	272.14
8	0.24	Prescribed	Use Default Facility Hours	3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	935.25	0.00	$46.76	935.25
9	0.33	Prescribed	Use Default Facility Hours	3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	1,272.56	0.00	$63.63	1,272.56
10	5.76	Prescribed	Use Default Facility Hours	3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	22,016.75	0.00	$1,100.84	22,016.75
11	0.90	Prescribed	Use Default Facility Hours	3672	65.0%	20.00%	9.50%	0.0%	30.0%	0.95	3,602.67	1,317.23	$245.99	4,919.90
12	1.06	Prescribed	Use Default Facility Hours	3672	65.0%	20.00%	9.50%	0.0%	0.0%	0.92	4,246.01	0.00	$212.30	4,246.01
13	0.28	Prescribed	Use Default Facility Hours	3672	65.0%	20.00%	9.50%	0.0%	0.0%	0.22	1,109.75	0.00	$55.49	1,109.75
14	0.61	Prescribed	Use Default Facility Hours	3672	65.0%	20.00%	9.50%	0.0%	0.0%	0.48	2,460.75	0.00	$123.04	2,460.75
15	0.18	Prescribed	Use Default Facility Hours	3672	65.0%	20.00%	9.50%	0.0%	0.0%	0.14	723.75	0.00	$36.19	723.75
16	0.03	Prescribed	Use Default Facility Hours	3672	65.0%	20.00%	9.50%	0.0%	0.0%	0.02	108.56	0.00	$5.43	108.56
17	0.54	Prescribed	Use Default Facility Hours	3526	76.0%	20.00%	9.50%	0.0%	30.0%	0.48	2,100.37	767.95	$143.42	2,868.31
18	0.64	Prescribed	Use Default Facility Hours	3526	76.0%	20.00%	9.50%	0.0%	30.0%	0.80	2,471.02	903.47	$168.72	3,374.49
19	0.62	Prescribed	Use Default Facility Hours	3526	76.0%	20.00%	9.50%	0.0%	30.0%	0.90	2,393.80	1,400.37	$189.71	3,794.18
20	0.34	Prescribed	Use Default Facility Hours	3526	76.0%	20.00%	9.50%	0.0%	30.0%	0.52	1,312.73	903.47	$110.81	2,216.20
21	0.13	Prescribed	Use Default Facility Hours	3526	76.0%	20.00%	9.50%	0.0%	30.0%	0.56	486.48	1,881.06	$118.37	2,367.55
22	0.06	Prescribed	Use Default Facility Hours	3526	76.0%	20.00%	9.50%	0.0%	0.0%	0.06	243.24	0.00	$12.16	243.24
23	4.59	Prescribed	Use Default Facility Hours	3526	76.0%	20.00%	9.50%	0.0%	0.0%	4.19	17,721.85	0.00	$886.09	17,721.85
24	2.05	Prescribed	Use Default Facility Hours	3526	76.0%	20.00%	9.50%	0.0%	0.0%	1.87	7,899.54	0.00	$394.98	7,899.54
25	0.64	Prescribed	Use Default Facility Hours	3526	76.0%	20.00%	9.50%	0.0%	0.0%	0.59	2,486.46	0.00	$124.32	2,486.46
26	1.14	Prescribed	Use Default Facility Hours	3526	76.0%	20.00%	9.50%	0.0%	0.0%	1.04	4,416.95	0.00	$220.85	4,416.95
27	1.83	Prescribed	Use Default Facility Hours	3526	76.0%	20.00%	9.50%	0.0%	0.0%	1.67	7,065.58	0.00	$353.28	7,065.58
28	0.28	Prescribed	Use Default Facility Hours	3526	76.0%	20.00%	9.50%	0.0%	0.0%	0.25	1,077.21	0.00	$53.86	1,077.21
29	4.73	Prescribed	Use Default Facility Hours	3526	76.0%	20.00%	9.50%	0.0%	0.0%	4.31	18,266.25	0.00	$913.31	18,266.25
30	1.25	Prescribed	Use Default Facility Hours	3526	76.0%	20.00%	9.50%	0.0%	0.0%	1.14	4,841.66	0.00	$242.08	4,841.66
31	3.48	Prescribed	Use Default Facility Hours	3526	76.0%	20.00%	9.50%	0.0%	0.0%	3.17	13,436.18	0.00	$671.81	13,436.18
32	0.20	Prescribed	Use Default Facility Hours	3526	76.0%	20.00%	9.50%	0.0%	0.0%	0.18	752.89	0.00	$37.64	752.89
33	0.04	Prescribed	Use Default Facility Hours	3526	76.0%	20.00%	9.50%	0.0%	0.0%	0.04	150.58	0.00	$7.53	150.58
34	0.47	Prescribed	Use Default Facility Hours	3526	76.0%	20.00%	9.50%	0.0%	0.0%	0.43	1,806.93	0.00	$90.35	1,806.93
35	0.02	Prescribed	Use Default Facility Hours	3526	76.0%	20.00%	9.50%	0.0%	0.0%	0.02	65.64	0.00	$3.28	65.64

Project Estimated Summary

Lighting Incentive Program

Customer Name	Northeat Ohio Regional Sewer District
Building Name	Environmental Maintenance Services Center (EMSC)
Building Address	4747 E 49th St

Estimated Annual Energy Savings (kWh)	184,674.11
Demand Reduction (kW_{summer})	25.04
Annual Operating Hours	3668
Total Calculated Project Incentive	$9,233.70

Equipment Category	kW	kWh	Quantity	Incentive
CFL Lamps Specialty	-	-	0	$0.00
CFL Fixtures	-	-	0	$0.00
Lighting Controls	1.64	7,173.55	6	$358.67
Linear Fluorescent T8 & T5	23.40	101,246.86	811	$5,062.34
Linear LED	-	-	0	$0.00
Exit Signs	-	-	0	$0.00
LED Fixtures External	-	16,846.04	29	$842.30
LED Fixtures Internal	-	-	0	$0.00
LED Lamps	-	-	0	$0.00
LED Reach-in Refrigerator/Freezer Lighting	-	-	0	$0.00
LED Channel Signage	-	-	0	$0.00
Street and Area Lighting	-	59,407.67	50	$2,970.39
Custom - Process Improvement	-	-	0	$0.00

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Deemed kW Savings	25.04
As Found kW Savings	25.21
Total kW Savings	25.21
Deemed kWh Savings	184674.11
As Found kWh Savings	185427.00
Total kWh Savings	185427.00

Non Prescriptive kWh Savings	184674.11

Mercantile Customer Project Commitment Agreement
Cash Rebate Option

THIS MERCANTILE CUSTOMER PROJECT COMMITMENT AGREEMENT ("Agreement") is made and entered into by and between The Cleveland Electric Illuminating Company, its successors and assigns (hereinafter called the "Company") and Northeast Ohio Regional Sewer District, Taxpayer ID No. 34-1128332 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 commiting the Customer Energy Project(s) to the Company, Customer acknowledges and agrees that the Company shall control the use of the kWh and kW reductions resulting from said projects for purposes of complying with the Statute. By committing the Customer Energy Project(s), Customer has the ability to either:

i. Take ownership of the Energy Efficiency resource credits resulting from their Customer Energy Project(s) and may be able to bid - or sell - the Energy Efficiency resource credits into the market operated by the grid operator, PJM Interconnection, Inc. (PJM), provided several prerequisites are met; or

ii. Allow the Company to take ownership of the Energy Efficiency resource credits associated with their Customer Energy Project(s). The Company 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.

Please indicate your preference as to the treatment of your Energy Efficiency resource credits:

☒ Customer would like to retain ownership of its Energy Efficiency resource credits.

☐ Customer assigns ownership of its Energy Efficiency resource credits to Company for purposes of bidding these credits into PJM.

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) 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: Mercantile Energy Efficiency Program A-GO-8
Telephone: 330 384 4504
Fax: 330 777 6051
Email: mercantile@firstenergycorp.com

If to the Customer:

Northeast Ohio Regional Sewer District
3900 Euclid Ave
Cleveland, OH 44115
Attn:Jenita Warner
Telephone:216-881-6600 x 6845
Fax:
Email:warnerj@neorsd.org

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.

Cleveland Electric Illuminating company
(Company)

By: _____

Title: V.P. Of Energy Efficiency

Date: 4-16-18

Northeast Ohio Regional Sewer District
(Customer)

By: Jenita Warner

Title: Sustainability Program Manager

Date: 12/4/17

Affidavit of Northeast Ohio Regional Sewer District – Exhibit _A_

STATE OF OHIO)
) SS:
COUNTY OF Cuyahoga)

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

1. I am the Sustainability Program Manager of Northeast Ohio Regional Sewer District ("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 The Cleveland Electric Illuminating 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 4th day of Dec, 2017

Katarina Waas
Notary

KATARINA K. WAAS, Attorney At Law
Notary Public, State of Ohio
My Commission has no expiration date
Sec. 147.03 R.C.

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

5/11/2018 10:04:35 AM

in

Case No(s). 18-0025-EL-EEC

Summary: Application to Commit Energy Efficiency/Peak Demand Reduction Programs of The Cleveland Electric Illuminating Company and Northeast Ohio Regional Sewer District electronically filed by Ms. Jennifer M. Sybyl on behalf of The Cleveland Electric Illuminating Company and Northeast Ohio Regional Sewer District