Ohio | Public Utilities Commission

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

Case No.: 20-1049-**EL-EEC**

Mercantile Customer: Cleveland Metroplitan Park District

Electric Utility: The Cleveland Electric Illuminating Company

Program Title or Description: Lighting projects

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:Cleveland Metroplitan Park District

Principal address:4101 Fulton PArkway Cleveland OH44144

Address of facility for which this energy efficiency program applies:Kristen, please insert a list of the location addresses here.

Name and telephone number for responses to questions:Kristen Trolio 216-635-3244

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: 263,065 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?

4/9/20

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

20 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 $9,238. (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.

Ohio | Public Utilities Commission

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

Case No.: 20-1049-**EL-EEC**

State of Ohio :

Gary Butzback, Affiant, being duly sworn according to law, deposes and says that:

1. I am the duly authorized representative of:

   Cleveland Metropolitan Park 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.

Gary Butz CONTROLLER
Signature of Affiant & Title

Sworn and subscribed before me this 13th day of July, 2020 Month/Year

Geraldine L. Madzia
Signature of official administering oath

GERALDINE L. MADZIA
Print Name and Title

GERALDINE L. MADZIA
NOTARY PUBLIC • STATE OF OHIO
Recorded in Cuyahoga County
My commission expires Nov. 3, 2023

My commission expires on 11-3-2023

FirstEnergy

MERCANTILE CUSTOMER SITE INFORMATION FORM

APPLICANT INFORMATION

SITE NAME:	Cleveland Metroparks	**PUCO Docket #**	
Site Address:	4101 Fulton Parkway	Site City:	Cleveland
Site State:	Ohio	Site Zip code:	44144
Customer Legal Name:	Cleveland Metroparks		
Contact Person:	Kristen Trolio	Phone: 2166353244	Email: kmt@clevelandmetroparks.com
FirstEnergy Customer Service Representative or Administrator's Name:	COSE/GCP	Phone:	216-592-2432
NAICS Number:		Applicant Taxpayer ID # (SSN/FEIN) :	34-60000704

BUSINESS SPECIFIC INFORMATION

Please give a general description of your business below:

Metropark District

OPERATIONAL INFORMATION

Specify hours of operation per day (e.g. 8:00 AM - 5:00 PM):	6am to 6pm
Specify days of operation per week (e.g. Monday - Friday):	7 days

Please describe any seasonal outages or ramp-ups applicable to your business below:

increased usage in the summer

CUSTOMER ACKNOWLEDGEMENT

PLEASE CHECK BOXES BELOW

☑ I UNDERSTAND THAT THE PROJECT(S) REPORTED IN THIS DOCUMENT MAY BE INSPECTED BY AN INDEPENDENT EVALUATION CONTRACTOR TO CONFIRM PROJECT COMPLETION, SAVINGS AND USE CONDITIONS.

☑ I UNDERSTAND THAT ALL CUSTOMER NUMBERS INCLUDED WITHIN THIS APPLICATION MUST BE LOCATED WITHIN ONE SITE AS DEFINED HEREIN

Customer Usage Summary

Total Site Baseline Usage Information [1]

Year	Billed kWh	Weather Adjusted	Total Billed $
2017	0	0	$0
2018	0	0	$0
2019	0	0	$0
Average	0	0	

(1) These numbers will be used to establish the baseline usage for calculation of the potential exemption period for this site

When entering the Customer Number, be sure to add a leading appostrophe so excel does not truncate the number.

Total Site Baseline Usage Information by Customer Number

				2017			2018			2019		
Account Assignment Number	Customer Number	Address	Rate Code	Billed kWh	Weather Adjusted kwh	Total Billed $	Billed kWh	Weather Adjusted kwh	Total Billed $	Billed kWh	Weather Adjusted kwh	Total Billed $
1	08004606611350098068	E 49th St Cleveland OH 44105	CE-GSD									
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												

Billed kWh and Total billed $ will have to be compiled from your old electric bills. You need to complete three years of data if taking the exemption option or a minimum of one year of data if taking the cash option.

Cleveland Metroparks
Cleveland Metroparks

Project #1

FirstEnergy

PROJECT INFORMATION SHEET

Cleveland Metroparks

Project Name: Brecksville

Project In-Service Date (MM/DD/YYYY): 3/1/2019

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:

Lighting

Total Project Cost: $2,849

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.

Project Classification:

(Check all that apply)

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

If Other or Custom Please Explain:

PROJECT INFORMATION SHEET

Equipment Information:

	New	Old Equipment
Equipment specifications (Model no., size, etc.):	LED	Flourescent
Number of units:	103	124
Efficiency rating (R-Value, SEER/EER rating, motor efficiency, etc.)		
What was the estimated remaining useful service life:	15	5

Operational Information for Equipment:

Describe the operational period of the equipment (i.e. months, days, hours): 2729

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	30,019	2,729	11
Standard	30,019	2,729	11
New	955	2,729	3

Annual reduced kWh attributable to this project:	**29,064**	**kWh**	**kW demand reduction attributable to this project:**	**8**	**kW**
Annual reduced kWh *eligible for an incentive* :	**29,064**	**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.

FirstEnergy Lighting Calculator

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***

Invoices

Project #2

FirstEnergy

PROJECT INFORMATION SHEET

Cleveland Metroparks

Project Name: Ohio Erie Canal

Project In-Service Date (MM/DD/YYYY): 4/9/2020

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:

Lighting retrofit

Total Project Cost: $19,315

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.

Project Classification:

(Check all that apply)

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

If Other or Custom Please Explain:

PROJECT INFORMATION SHEET

Equipment Information:

	New	Old Equipment
Equipment Specifications (Model No., Size, etc.):	LED	flourescent
Number of Units:	208	208
Efficiency Rating (R-Value, SEER/EER Rating, Motor Efficiency, etc.)		
What was the estimated remaining useful service life:	15	5

Operational Information of Equipment:

Describe the operational period of the equipment (i.e. Months, Days, Hours): 3541

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	134,558	3,541	38
Standard	134,558	3,541	38
New	33,575	3,541	32

Annual reduced kWh attributable to this project:	**100,983**	**kWh**	**kW demand reduction attributable to this project:**	**6**	**kW**
Annual reduced kWh *eligible for an incentive* :	**100,983**	**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.

FirstEnergy Lighting Calcualtor

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***

Invoices

Project #3

FirstEnergy

PROJECT INFORMATION SHEET

Cleveland Metroparks

Project Name: Hinkley Reservation

Project In-Service Date (MM/DD/YYYY): 1/24/2020

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:

Total Project Cost: $5,977

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.

Project Classification:

(Check all that apply)

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

If Other or Custom Please Explain:

PROJECT INFORMATION SHEET

Equipment Information:

	New	Old Equipment
Equipment Specifications (Model No., Size, etc.):	LED	Flurescent
Number of Units:	68	68
Efficiency Rating (R-Value, SEER/EER Rating, Motor Efficiency, etc.)		
What was the estimated remaining useful service life:	15	5

Operational Information of Equipment:

Describe the operational period of the equipment (i.e. Months, Days, Hours): 3707

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	48,191	3,707	13
Standard	48,191	3,707	13
New	9,211	3,707	12

Annual reduced kWh attributable to this project:	**38,980**	**kWh**	**kW demand reduction attributable to this project:**	**1**	**kW**
Annual reduced kWh *eligible for an incentive* :	**38,980**	**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.

FirstEnergy Lighting Calculator

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***

Invoices

Project #4

FirstEnergy

PROJECT INFORMATION SHEET

Cleveland Metroparks

Project Name: Lakefront

Project In-Service Date (MM/DD/YYYY): 2/7/2020

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:

Lighting retrofit

Total Project Cost: $8,954

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.

Project Classification:

(Check all that apply)

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

If Other or Custom Please Explain:

PROJECT INFORMATION SHEET

Equipment Information:

	New	Old Equipment
Equipment Specifications (Model No., Size, etc.):	LED	Flourescent
Number of Units:	95	95
Efficiency Rating (R-Value, SEER/EER Rating, Motor Efficiency, etc.)		
What was the estimated remaining useful service life:	15	5

Operational Information of Equipment:

Describe the operational period of the equipment (i.e. Months, Days, Hours): 3744

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	56,160	3,744	15
Standard	56,160	3,744	15
New	13,895	3,744	14

Annual reduced kWh attributable to this project:	**42,265**	**kWh**	**kW demand reduction attributable to this project:**	**1**	**kW**
Annual reduced kWh *eligible for an incentive* :	**42,265**	**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.

FirstEnergy Lighting Calculator

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***

Invoices

Project #5

FirstEnergy

PROJECT INFORMATION SHEET

Cleveland Metroparks

Project Name: Mill Stream

Project In-Service Date (MM/DD/YYYY): 2/6/2020

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:

Lighting Retrofit

Total Project Cost: $3,898

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.

Project Classification:

(Check all that apply)

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

If Other or Custom Please Explain:

PROJECT INFORMATION SHEET

Equipment Information:

	New	Old Equipment
Equipment Specifications (Model No., Size, etc.):	LED	Flourescent
Number of Units:	58	100
Efficiency Rating (R-Value, SEER/EER Rating, Motor Efficiency, etc.)		
What was the estimated remaining useful service life:	15	5

Operational Information of Equipment:

Describe the operational period of the equipment (i.e. Months, Days, Hours): 3392

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	61,056	3,392	18
Standard	61,056	3,392	18
New	9,283	3,392	14

Annual reduced kWh attributable to this project:	**51,773**	**kWh**	**kW demand reduction attributable to this project:**	**4**	**kW**
Annual reduced kWh *eligible for an incentive* :	**51,773**	**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.

FirstEnergy Lighting Calcualtor

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***

Invoices

Exhibit 1

Customer Legal Entity Name: Cleveland Metroparks

Site Address: Cleveland Metroparks

Principal Address: 4101 Fulton Parkway

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	Brecksville	Lighting	FirstEnergy Lighting Calculator	N/A	N/A
2	Ohio Erie Canal	Lighting retrofit	FirstEnergy Lighting Calcualtor	N/A	N/A
3	Hinkley Reservation	0	FirstEnergy Lighting Calculator	N/A	N/A
4	Lakefront	Lighting retrofit	FirstEnergy Lighting Calculator	N/A	N/A
5	Mill Stream	Lighting Retrofit	FirstEnergy Lighting Calcualtor	N/A	N/A

Docket No. 0

Site: 4101 Fulton Parkway

Exhibit 2

Customer Legal Entity Name: Cleveland Metroparks
Site Address: Cleveland Metroparks
Principal Address: 4101 Fulton Parkway

	Unadjusted Usage, kwh (A)	Weather Adjusted Usage, kwh (B)	Weather Adjusted Usage with Energy Efficiency Addbacks, kwh (c) *Note 1*
Average	0	0	0

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	Brecksville	03/01/2019	$2,849	$1,425	29,064	29,064	8	$767	$575	
2	Ohio Erie Canal	04/09/2020	$19,315	$9,658	100,983	100,983	6	$4,900	$3,675	
3	Hinkley Reservation	01/24/2020	$5,977	$2,989	38,980	38,980	1	$1,949	$1,462	
4	Lakefront	02/07/2020	$8,954	$4,477	42,265	42,265	1	$2,113	$1,585	
5	Mill Stream	02/06/2020	$3,898	$1,949	51,773	51,773	4	$2,588	$1,941	
					-	-	-			
					-	-	-			
		Total	**$40,993**		**263,065**	**263,065**	**20**	**$12,317**	**$9,238**	**$0**

Docket No. 0
Site: 4101 Fulton Parkway

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. Combined Heat & Power (CHP) projects are not subject to the $250,000 project rebate cap.

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	$ 14,423	$ 810	$ 575	$291	$ 1,676	**8.6**
2	$ 50,113	$ 810	$ 3,675	$1,010	$ 5,495	**9.12**
3	$ 19,344	$ 810	$ 1,462	$390	$ 2,662	**7.27**
4	$ 20,974	$ 810	$ 1,585	$423	$ 2,817	**7.44**
5	$ 25,692	$ 810	$ 1,941	$518	$ 3,269	**7.86**
Total	**130,546**	**4,050**	**9,238**	**$2,631**	**15,918**	**8.2**

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)

Cleveland Metroparks ~ Cleveland Metroparks

Docket No. 0

Site: 4101 Fulton Parkway

FirstEnergy

Lighting Worksheet - General Information Form

Enter general project information in the yellow cells below. If all or a portion of the lighting project is considered a major renovation or new construction, then specify the calculation method below. Customers may leave the Project ID and External ID fields blank as those fields are used for internal processing.
If the deemed facility hours as defined on the *Instructions tab* are not a good fit to the facility's actual hours of operation, custom lighting schedules may be defined below for use in the *Lighting Inventory* calculations.

*Customer Name	Metroparks
*Project Site Name	[illegible]
*Installation Address	
Project ID	
External ID	
New Construction Calculation Method	Building Area
New Construction Baseline	ASHRAE 90.1 2010

Is the Project Completed?	No
Total Equipment Cost	[illegible]

Custom Lighting Schedule Summary

		Annual Hours	CF
1	12 Hour days	[illegible]	1.00
2	<< Input Schedule Name 2 >>		0.00
3	<< Input Schedule Name 3 >>		0.00
4	<< Input Schedule Name 4 >>		0.00
5	<< Input Schedule Name 5 >>		0.00
6	<< Input Schedule Name 6 >>		0.00
7	<< Input Schedule Name 7 >>		0.00
8	<< Input Schedule Name 8 >>		0.00

Customer Sector	

Custom schedules may defined in the tables below by editing the yellow cells. Keep in mind that additional information such as site inspections, customer interviews and data logging may be required to support and verify custom lighting schedules.
- Enter 1 to specify when the lighting equipment is on.
- Enter 0 to specify when the lighting equipment is off.
- Half hours can be specified by entering 0.5.

When complete, all yellow cells in the table should contain either a 1, 0 or 0.5
Please Note: The lighting schedule calculators function as a percent. Users have the option to enter in any number between 0 to 1 to define the percentage of time the lighting equipment is in operation for each one hour period (e.g., enter 0.25 for 15 minutes or .75 for 45 minutes).

12 Hour days

1

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Tuesday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Wednesday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Thursday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Friday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Saturday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Sunday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0

Holidays Observed Annually	[illegible]	Annual Hours	[illegible]
Yearly Operating Weeks	52	Coincidence Factor	1.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 2 >>

2

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 3 >>

3

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 4 >>

4

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 5 >>

5

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 6 >>

6

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 7 >>

7

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 8 >>

8

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

Retrofit and New Construction Lighting Worksheet

FirstEnergy

Customer Name

Building Address

Please enter this information only once on the first data row.

Information Defined on Other Worksheets

Line	Unique Type (drop down menu)	Short	Area Description	Electric Service Voltage (drop down menu)	Cooling Zone Type (drop down menu)	Space Cooling Type (drop down menu)	Space Heating Type (drop down menu)	Fan Motors Capacity	Fan Motors Power Density (Watts/hp)	Fan Motors Hours (hours/year)	Cooling Incentive Type (drop down menu)	Area Horizontal Modeling Type	Lamps Type Standard Watts (drop down menu) Watts	Lighting Power Density (W/ft²)	Area Net Interior Lighting Power (kW)	Fan Motors Capacity	Fan Motors Efficiency (drop down menu)	Fan Motors Description (drop down menu)	Incentive Code (drop down menu)	CBP Value	Cost Adder per Fixture	Incentive Change Cost Adder per Fixture ($)	Cost Adder Justification Fixture ($)	Lamp Lumen Change (% of Baseline)	Ballast Factor Change (% of Baseline)	Incentive Change Ratio	Cost Adder per Ratio ($)	Cost Adder per Fixture (Ratio)	Cost Adder per Ratio (Fixture)	Cost Adder per Fixture (Ratio)	Cost Adder Justification Ratio ($)	Annual Lighting Hours (hours/year)	Lighting Schedule	Occupancy Sensor Type (drop down menu)	Occupancy Sensor Hours (hours/year)	Fixtures in Area	Fixtures Power Density (Watts)	Fixtures Power (kW)	Fixtures Hours (hours/year)	Fixtures Energy (kWh)	Fixtures Cost ($)	Fixtures Incentive ($)	Fixtures Net Cost ($)	Annual Energy Savings (kWh)	Annual Energy Savings (kWh)	Simple Payback Years	Annual ROI (%)
1	Retrofit			480V	Cooled Space	Electric Chiller	Electric Heat	0	0	2,500	0.15																					2,500																	
2	Retrofit			480V	Cooled Space	Electric Chiller	Electric Heat	0	0	2,500	0.15																					2,500																	
3	Retrofit			480V	Cooled Space	Electric Chiller	Electric Heat	0	0	2,500	0.15																					2,500																	
4	Retrofit			480V	Cooled Space	Electric Chiller	Electric Heat	0	0	2,500	0.15																					2,500																	
5	Retrofit			480V	Cooled Space	Electric Chiller	Electric Heat	0	0	2,500	0.15																					2,500																	
6	Retrofit			480V	Cooled Space	Electric Chiller	Electric Heat	0	0	2,500	0.15																					2,500																	
7	Retrofit			480V	Cooled Space	Electric Chiller	Electric Heat	0	0	2,500	0.15																					2,500																	
8	Retrofit			480V	Cooled Space	Electric Chiller	Electric Heat	0	0	2,500	0.15																					2,500																	
9	Retrofit			480V	Cooled Space	Electric Chiller	Electric Heat	0	0	2,500	0.15																					2,500																	
10	Retrofit			480V	Cooled Space	Electric Chiller	Electric Heat	0	0	2,500	0.15																					2,500																	
11	Retrofit			480V	Cooled Space	Electric Chiller	Electric Heat	0	0	2,500	0.15																					2,500																	
12	Retrofit			480V	Cooled Space	Electric Chiller	Electric Heat	0	0	2,500	0.15																					2,500																	
13	Retrofit			480V	Cooled Space	Electric Chiller	Electric Heat	0	0	2,500	0.15																					2,500																	
14	Retrofit			480V	Cooled Space	Electric Chiller	Electric Heat	0	0	2,500	0.15																					2,500																	
15	Retrofit			480V	Cooled Space	Electric Chiller	Electric Heat	0	0	2,500	0.15																					2,500																	
16	Retrofit			480V	Cooled Space	Electric Chiller	Electric Heat	0	0	2,500	0.15																					2,500																	
17	Retrofit			480V	Cooled Space	Electric Chiller	Electric Heat	0	0	2,500	0.15																					2,500																	
18	Retrofit			480V	Cooled Space	Electric Chiller	Electric Heat	0	0	2,500	0.15																					2,500																	
19	Retrofit			480V	Cooled Space	Electric Chiller	Electric Heat	0	0	2,500	0.15																					2,500																	
20	Retrofit			480V	Cooled Space	Electric Chiller	Electric Heat	0	0	2,500	0.15																					2,500																	

Project Estimated Summary

Lighting Incentive Program

Customer Name	Metroparks
Building Name	Mill Stream
Building Address	

Estimated Annual Energy Savings (kWh)	51,773.10
Demand Reduction (kW_{Summer})	3.96
Annual Operating Hours	3392
Total Calculated Project Incentive	$2,588.65

Equipment Category	kW	kWh	Quantity	Incentive
Lighting Controls	-	-	0	$0.00
Linear Fluorescent T8 & T5	-	-	0	$0.00
Linear LED	3.71	15,588.05	14	$779.40
Exit Signs	-	-	0	$0.00
LED Fixtures External	-	-	0	$0.00
LED Fixtures Internal	-	-	0	$0.00
LED Lamps	0.25	7,514.21	23	$375.71
LED Reach-in Refrigerator/Freezer Lighting	-	-	0	$0.00
LED Channel Signage	-	-	0	$0.00
Street and Area Lighting	-	28,670.84	21	$1,433.54
Custom - Process Improvement	-	-	0	$0.00

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Deemed kW Savings	3.96
As Found kW Savings	4.73
Total kW Savings	4.73
Deemed kWh Savings	51773.10
As Found kWh Savings	54982.40
Total kWh Savings	54982.40

Non Prescriptive kWh Savings	0.00

Lighting Worksheet - General Information Form

Enter general project information in the yellow cells below. If all or a portion of the lighting project is considered a major renovation or new construction, then specify the calculation method below. Customers may leave the Project ID and External ID fields blank as those fields are used for internal processing.
If the deemed facility hours as defined on the *Instructions tab* are not a good fit to the facility's actual hours of operation, custom lighting schedules may be defined below for use in the *Lighting Inventory* calculations.

*Customer Name	Metroparks
*Project Site Name	
*Installation Address	
Project ID	
External ID	
New Construction Calculation Method	Building Area
New Construction Baseline	
Is the Project Completed?	No
Total Equipment Cost	

Custom Lighting Schedule Summary

		Annual Hours	CF
1	12 Hour days	[illegible]	1.00
2	<< Input Schedule Name 2 >>		0.00
3	<< Input Schedule Name 3 >>		0.00
4	<< Input Schedule Name 4 >>		0.00
5	<< Input Schedule Name 5 >>		0.00
6	<< Input Schedule Name 6 >>		0.00
7	<< Input Schedule Name 7 >>		0.00
8	<< Input Schedule Name 8 >>		0.00

Customer Sector:

Custom schedules may defined in the tables below by editing the yellow cells. Keep in mind that additional information such as site inspections, customer interviews and data logging may be required to support and verify custom lighting schedules.
- Enter 1 to specify when the lighting equipment is on.
- Enter 0 to specify when the lighting equipment is off.
- Half hours can be specified by entering 0.5.

When complete, all yellow cells in the table should contain either a 1, 0 or 0.5
Please Note: The lighting schedule calculators function as a percent. Users have the option to enter in any number between 0 to 1 to define the percentage of time the lighting …

12 Hour days

1	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Tuesday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Wednesday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Thursday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Friday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Saturday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Sunday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0

Holidays Observed Annually: 3
Yearly Operating Weeks: 52
Unoccupied Summer Peak Weeks:
Annual Hours: [illegible]
Coincidence Factor: 1.00

<< Input Schedule Name 2 >>

2	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually:
Yearly Operating Weeks:
Unoccupied Summer Peak Weeks:
Annual Hours: 0
Summer PJM Coincidence Factor: 0.00

<< Input Schedule Name 3 >>

3	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually:
Yearly Operating Weeks:
Unoccupied Summer Peak Weeks:
Annual Hours: 0
Summer PJM Coincidence Factor: 0.00

<< Input Schedule Name 4 >>

4	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually:
Yearly Operating Weeks:
Unoccupied Summer Peak Weeks:
Annual Hours: 0
Summer PJM Coincidence Factor: 0.00

<< Input Schedule Name 5 >>

5	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually:
Yearly Operating Weeks:
Unoccupied Summer Peak Weeks:
Annual Hours: 0
Summer PJM Coincidence Factor: 0.00

<< Input Schedule Name 6 >>

6	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually:
Yearly Operating Weeks:
Unoccupied Summer Peak Weeks:
Annual Hours: 0
Summer PJM Coincidence Factor: 0.00

<< Input Schedule Name 7 >>

7	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually:
Yearly Operating Weeks:
Unoccupied Summer Peak Weeks:
Annual Hours: 0
Summer PJM Coincidence Factor: 0.00

<< Input Schedule Name 8 >>

8	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually:
Yearly Operating Weeks:
Unoccupied Summer Peak Weeks:
Annual Hours: 0
Summer PJM Coincidence Factor: 0.00

Retrofit and New Construction Lighting Worksheet

FirstEnergy

Please enter this information on the General Information tab

Customer Name: Metroparks
Building Address: 0
Building Area

Calculation Method (New Construction)

If "Custom" is selected as the Post Fixture Category, please enter the lighting equipment details as a custom "Cut Sheet" fixture on the Fixture Identities tab. Custom fixtures can be entered in the Fixture Identities tab starting on row 950.

* 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)
1	Retrofit		E 72nd Mgmt Ctr	interior	Public Assembly	Air Conditioned	Non-Electric Heat
2	Retrofit		Edgewater Pier Restroom	interior	Public Assembly	Air Conditioned	Non-Electric Heat
3	Retrofit		E 55th Restaurant Bldg Ext	exterior	Outdoor - Other	Uncooled	Unheated
4	Retrofit		E 55th Marina Parking Lot	exterior	Outdoor - Other	Uncooled	Unheated
5	Retrofit		E 72nd Fishing Area Parking Lot	exterior	Outdoor - Other	Uncooled	Unheated
6	Retrofit		E 55th Fishing Area Parking Lot	exterior	Outdoor - Other	Uncooled	Unheated
7	Retrofit		E 72nd Mgmt Ctr Parking Lot	exterior	Outdoor - Other	Uncooled	Unheated
8	Retrofit		Lakefront Admin Parking Lot	exterior	Outdoor - Other	Uncooled	Unheated
9	Retrofit		Gordon Boat Ramp Parking Lot	exterior	Outdoor - Other	Uncooled	Unheated
10	Retrofit		Edgewater Park Parking Lot	exterior	Outdoor - Other	Uncooled	Unheated
11	Retrofit		Edgewater All Purpose Trail	exterior	Outdoor - Other	Uncooled	Unheated
12							
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Totals							

Line Item	Pre Installation [Retrofit]: *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)	New Construction 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.	Lighting Power Density (W/unit)	Baseline kW per Space (kW)
1	15	f44ill	112	1.68					
2	2	f44ill	112	0.22					
3	15	mh250/1	295	4.43					
4	5	hps100/1	138	0.69					
5	12	hps100/1	138	1.66					
6	14	hps100/1	138	1.93					
7	1	hps100/1	138	0.14					
8	13	hps100/1	138	1.79					
9	6	hps100/1	138	0.83					
10	10	hps100/1	138	1.38					
11	2	hps100/1	138	0.28					
Totals	95			15.02					-

Line Item	Post Installation [Retrofit]: *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	Cost per Fixture from Itemized Invoice ($)	Calculated Cost Per Fixture ($)	LED Signage Linear Feet (if applicable)	Quantity of Doors (if applicable)	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	15	[illegible]	Tube LED Lamps - Type B (line voltage to sockets)	$0.05 Per kWh	-	60		$44.31			cut sheet 1	60	0.90	Occupancy
2	2	[illegible]	Tube LED Lamps - Type B (line voltage to sockets)	$0.05 Per kWh	-	60		$44.31			cut sheet 2	60	0.12	Occupancy
3	15	[illegible]	Parking Lot/Area Pole Mounted	$0.05 Per kWh	-	40		[illegible]			cut sheet 3	40	0.60	
4	5	[illegible]	Parking Lot/Area Pole Mounted	$0.05 Per kWh	-	20		$95.82			cut sheet 4	20	0.10	
5	12	[illegible]	Parking Lot/Area Pole Mounted	$0.05 Per kWh	-	40		$79.58			cut sheet 5	40	0.48	
6	14	[illegible]	Parking Lot/Area Pole Mounted	$0.05 Per kWh	-	40		$79.58			cut sheet 6	40	0.56	
7	1	[illegible]	Parking Lot/Area Pole Mounted	$0.05 Per kWh	-	40		$79.58			cut sheet 7	40	0.04	
8	13	[illegible]	Parking Lot/Area Pole Mounted	$0.05 Per kWh	-	40		$79.58			cut sheet 8	40	0.52	
9	6	[illegible]	Parking Lot/Area Pole Mounted	$0.05 Per kWh	-	40		$79.58			cut sheet 9	40	0.24	
10	10	[illegible]	Parking Lot/Area Pole Mounted	$0.05 Per kWh	-	40		$79.58			cut sheet 10	40	0.40	
11	2	[illegible]	Parking Lot/Area Pole Mounted	$0.05 Per kWh	-	40		$79.58			cut sheet 11	40	0.08	
12											cut sheet 12			
13											cut sheet 13			
14											cut sheet 14			
15											cut sheet 15			
16											cut sheet 16			
Totals	95												4.06	

Line Item	Change in Connected Load (kW)	Use Applicant or Prescribed Hours?	Lighting Schedule	Equipment Full Load Hours (EFLH)	Coincidence Factor	Interactive Factor Demand (IF_{kW})	Interactive Factor Energy (IF_{kWh})	Pre Controls ESF	Post Controls ESF	Deemed Demand Savings (kW)	Deemed Energy Savings (kWh): Annual Energy Savings (kWh)	Annual Energy Savings (kWh) Controls Only	Total Incentive	Annual kWh Saved
1	0.78	Prescribed		2729	65.0%	20.00%	9.50%	0.0%	30.0%	0.82	2,330.84	806.83	$156.88	3,137.67
2	0.10	Prescribed		2729	65.0%	20.00%	9.50%	0.0%	30.0%	0.11	310.78	107.58	$20.92	418.36
3	3.83	Prescribed		3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	14,661.23	0.00	$733.06	14,661.23
4	0.59	Prescribed		3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	2,261.47	0.00	$113.07	2,261.47
5	1.18	Prescribed		3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	4,507.61	0.00	$225.38	4,507.61
6	1.37	Prescribed		3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	5,258.88	0.00	$262.94	5,258.88
7	0.10	Prescribed		3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	375.63	0.00	$18.78	375.63
8	1.27	Prescribed		3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	4,883.24	0.00	$244.16	4,883.24
9	0.59	Prescribed		3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	2,253.80	0.00	$112.69	2,253.80
10	0.98	Prescribed		3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	3,756.34	0.00	$187.82	3,756.34
11	0.20	Prescribed		3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	751.27	0.00	$37.56	751.27
12		Prescribed												
13		Prescribed												
14		Prescribed												
15		Prescribed												
16		Prescribed												
Totals	10.98									0.93	41,351.08	914.41	$2,113.26	42,265.49

Project Estimated Summary

Lighting Incentive Program

Customer Name	Metroparks
Building Name	Lakefront
Building Address	

Estimated Annual Energy Savings (kWh)	42,265.49
Demand Reduction (kW_{Summer})	0.93
Annual Operating Hours	3744
Total Calculated Project Incentive	$2,113.26

Equipment Category	kW	kWh	Quantity	Incentive
Lighting Controls	0.24	914.41	17	$45.72
Linear Fluorescent T8 & T5	-	-	0	$0.00
Linear LED	0.69	2,641.62	17	$132.08
Exit Signs	-	-	0	$0.00
LED Fixtures External	-	-	0	$0.00
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	-	38,709.47	78	$1,935.46
Custom - Process Improvement	-	-	0	$0.00

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Deemed kW Savings	0.93
As Found kW Savings	0.93
Total kW Savings	0.93
Deemed kWh Savings	42265.49
As Found kWh Savings	42265.49
Total kWh Savings	42265.49

Non Prescriptive kWh Savings	0.00

FirstEnergy

Lighting Worksheet - General Information Form

Enter general project information in the yellow cells below. If all or a portion of the lighting project is considered a major renovation or new construction, then specify the calculation method below. Customers may leave the Project ID and External ID fields blank as those fields are used for internal processing.
If the deemed facility hours as defined on the *Instructions tab* are not a good fit to the facility's actual hours of operation, custom lighting schedules may be defined below for use in the *Lighting Inventory* calculations.

*Customer Name	Metroparks
*Project Site Name	Hinckley
*Installation Address	
Project ID	
External ID	
New Construction Calculation Method	Building Area
New Construction Baseline	ASHRAE 90.1 2010

Is the Project Complete?	No
Total Equipment Cost	$8,977.00

	Custom Lighting Schedule Summary	Annual Hours	CF
1	12 Hour days	4320	1.00
2	<< Input Schedule Name 2 >>		0.00
3	<< Input Schedule Name 3 >>		0.00
4	<< Input Schedule Name 4 >>		0.00
5	<< Input Schedule Name 5 >>		0.00
6	<< Input Schedule Name 6 >>		0.00
7	<< Input Schedule Name 7 >>		0.00
8	<< Input Schedule Name 8 >>		0.00

Customer Sector	

Custom schedules may defined in the tables below by editing the yellow cells. Keep in mind that additional information such as site inspections, customer interviews and data logging may be required to support and verify custom lighting schedules.
- Enter 1 to specify when the lighting equipment is on.
- Enter 0 to specify when the lighting equipment is off.
- Half hours can be specified by entering 0.5.

When complete, all yellow cells in the table should contain either a 1, 0 or 0.5
Please Note: The lighting schedule calculators function as a percent. Users have the option to enter in any number between 0 to 1 to define the percentage of time the lighting equipment is in operation for each one hour period (e.g., enter 0.25 for 15 minutes or .75 for 45 minutes).

12 Hour days

1	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Tuesday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Wednesday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Thursday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Friday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Saturday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Sunday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0

Holidays Observed Annually	4	Annual Hours	4320
Yearly Operating Weeks	52	Coincidence Factor	1.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 2 >>

2	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 3 >>

3	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 4 >>

4	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 5 >>

5	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 6 >>

6	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 7 >>

7	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 8 >>

8	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

Retrofit and New Construction Lighting Worksheet

FirstEnergy

Customer Name

Building Address

Date

Please enter this information in cells: Blue and Hit Validation Alt

Information Defined in Blue, Incorrect Input in Red

Line	Unique Type (drop down menu)	Short	Area Description	Existing Fixture Type (drop down menu)	Existing Ballast Type (drop down menu)	Existing Lamp Type (drop down menu)	Existing Lamp Quantity	Existing Ballast Quantity	Existing Fixture Quantity	Existing Inventory Type (drop down menu)	Area Hours/Scheduling Type	Hours Table Name (drop down menu)	Lighting Power Density (W/ft²)	Area Size (ft²)	Hours Table Name (drop down menu)	Proposed Fixture Description (drop down menu)	Incentive Code (drop down)	Cost Adder (yes/blank)	Incentive Control Type (drop down)	Incentive Control Factor (0-1)	Incentive Lamp Type (drop down menu)	Proposed Lamp Quantity	Proposed Ballast Quantity	Proposed Fixture Quantity	Cost Adder per Fixture (number)	Incentive per Fixture (number)	Cost Adder per Control (number)	Incentive per Control (number)	Cost Adder per Lamp (number)	Incentive per Lamp (number)	Cost Adder per Ballast (number)	Incentive per Ballast (number)	Cost Adder per Square Foot (number)	Incentive per Square Foot (number)	Cost Adder per Unit (number)	Incentive per Unit (number)	Cost Adder Description (drop down menu)	Existing Lighting Hours of Use (hours/year)	Proposed Lighting Hours of Use (hours/year)	Lighting Schedule	Equivalent Full Load Hours (EFLH)	Fixtures in Area	Fixture Watts (Watts)	Proposed Watts (Watts)	Lamp Watts (W)	Ballast Watts (W)	Lamp Life (hrs)	Ballast Factor	Annual Energy Savings (kWh)	Demand Energy Savings (kWh/yr)	Total Incentive	Annual ROI (Years)
1	Retrofit			Metal Halide	Magnetic	Metal Halide	1	1	1	Existing						Metal Halide - Pulse Start Ballast (Pulse Start Ballast, Lamp Type: Metal Halide, Lamps: 1, Watts: 175, Ballast Factor: 1.0)																																				
2	Retrofit			Metal Halide	Magnetic	Metal Halide	1	1	1	Existing						Metal Halide - Pulse Start Ballast (Pulse Start Ballast, Lamp Type: Metal Halide, Lamps: 1, Watts: 175, Ballast Factor: 1.0)																																				
3	Retrofit			Metal Halide	Magnetic	Metal Halide	1	1	1	Existing						Metal Halide - Pulse Start Ballast (Pulse Start Ballast, Lamp Type: Metal Halide, Lamps: 1, Watts: 175, Ballast Factor: 1.0)																																				
4	Retrofit			Metal Halide	Magnetic	Metal Halide	1	1	1	Existing						Metal Halide - Pulse Start Ballast (Pulse Start Ballast, Lamp Type: Metal Halide, Lamps: 1, Watts: 175, Ballast Factor: 1.0)																																				
5	Retrofit			Metal Halide	Magnetic	Metal Halide	1	1	1	Existing						Metal Halide - Pulse Start Ballast (Pulse Start Ballast, Lamp Type: Metal Halide, Lamps: 1, Watts: 175, Ballast Factor: 1.0)																																				
6	Retrofit			Metal Halide	Magnetic	Metal Halide	1	1	1	Existing						Metal Halide - Pulse Start Ballast (Pulse Start Ballast, Lamp Type: Metal Halide, Lamps: 1, Watts: 175, Ballast Factor: 1.0)																																				
7	Retrofit			Metal Halide	Magnetic	Metal Halide	1	1	1	Existing						Metal Halide - Pulse Start Ballast (Pulse Start Ballast, Lamp Type: Metal Halide, Lamps: 1, Watts: 175, Ballast Factor: 1.0)																																				
8	Retrofit			Metal Halide	Magnetic	Metal Halide	1	1	1	Existing						Metal Halide - Pulse Start Ballast (Pulse Start Ballast, Lamp Type: Metal Halide, Lamps: 1, Watts: 175, Ballast Factor: 1.0)																																				
9	Retrofit			Metal Halide	Magnetic	Metal Halide	1	1	1	Existing						Metal Halide - Pulse Start Ballast (Pulse Start Ballast, Lamp Type: Metal Halide, Lamps: 1, Watts: 175, Ballast Factor: 1.0)																																				
10	Retrofit			Metal Halide	Magnetic	Metal Halide	1	1	1	Existing						Metal Halide - Pulse Start Ballast (Pulse Start Ballast, Lamp Type: Metal Halide, Lamps: 1, Watts: 175, Ballast Factor: 1.0)																																				
11	Retrofit			Metal Halide	Magnetic	Metal Halide	1	1	1	Existing						Metal Halide - Pulse Start Ballast (Pulse Start Ballast, Lamp Type: Metal Halide, Lamps: 1, Watts: 175, Ballast Factor: 1.0)																																				
12	Retrofit			Metal Halide	Magnetic	Metal Halide	1	1	1	Existing						Metal Halide - Pulse Start Ballast (Pulse Start Ballast, Lamp Type: Metal Halide, Lamps: 1, Watts: 175, Ballast Factor: 1.0)																																				
13	Retrofit			Metal Halide	Magnetic	Metal Halide	1	1	1	Existing						Metal Halide - Pulse Start Ballast (Pulse Start Ballast, Lamp Type: Metal Halide, Lamps: 1, Watts: 175, Ballast Factor: 1.0)																																				
14	Retrofit			Metal Halide	Magnetic	Metal Halide	1	1	1	Existing						Metal Halide - Pulse Start Ballast (Pulse Start Ballast, Lamp Type: Metal Halide, Lamps: 1, Watts: 175, Ballast Factor: 1.0)																																				
15	Retrofit			Metal Halide	Magnetic	Metal Halide	1	1	1	Existing						Metal Halide - Pulse Start Ballast (Pulse Start Ballast, Lamp Type: Metal Halide, Lamps: 1, Watts: 175, Ballast Factor: 1.0)																																				
16	Retrofit			Metal Halide	Magnetic	Metal Halide	1	1	1	Existing						Metal Halide - Pulse Start Ballast (Pulse Start Ballast, Lamp Type: Metal Halide, Lamps: 1, Watts: 175, Ballast Factor: 1.0)																																				
17	Retrofit			Metal Halide	Magnetic	Metal Halide	1	1	1	Existing						Metal Halide - Pulse Start Ballast (Pulse Start Ballast, Lamp Type: Metal Halide, Lamps: 1, Watts: 175, Ballast Factor: 1.0)																																				
18	Retrofit			Metal Halide	Magnetic	Metal Halide	1	1	1	Existing						Metal Halide - Pulse Start Ballast (Pulse Start Ballast, Lamp Type: Metal Halide, Lamps: 1, Watts: 175, Ballast Factor: 1.0)																																				
19	Retrofit			Metal Halide	Magnetic	Metal Halide	1	1	1	Existing						Metal Halide - Pulse Start Ballast (Pulse Start Ballast, Lamp Type: Metal Halide, Lamps: 1, Watts: 175, Ballast Factor: 1.0)																																				
20	Retrofit			Metal Halide	Magnetic	Metal Halide	1	1	1	Existing						Metal Halide - Pulse Start Ballast (Pulse Start Ballast, Lamp Type: Metal Halide, Lamps: 1, Watts: 175, Ballast Factor: 1.0)																																				

Project Estimated Summary

Lighting Incentive Program

Customer Name	Metroparks
Building Name	Hinckley
Building Address	

Estimated Annual Energy Savings (kWh)	38,980.48
Demand Reduction (kW_{Summer})	0.97
Annual Operating Hours	3707
Total Calculated Project Incentive	$1,949.00

Equipment Category	kW	kWh	Quantity	Incentive
Lighting Controls	0.04	142.54	6	$7.11
Linear Fluorescent T8 & T5	-	-	0	$0.00
Linear LED	0.44	1,694.34	17	$84.71
Exit Signs	-	-	0	$0.00
LED Fixtures External	-	-	0	$0.00
LED Fixtures Internal	-	-	0	$0.00
LED Lamps	0.49	25,583.28	42	$1,279.17
LED Reach-in Refrigerator/Freezer Lighting	-	-	0	$0.00
LED Channel Signage	-	-	0	$0.00
Street and Area Lighting	-	11,560.33	9	$578.01
Custom - Process Improvement	-	-	0	$0.00

Sodexo, Inc. - 1 (866) 578-5220 | energysaveOH@sodexo.com

Deemed kW Savings	0.97
As Found kW Savings	0.97
Total kW Savings	0.97
Deemed kWh Savings	38980.48
As Found kWh Savings	38980.48
Total kWh Savings	38980.48

Non Prescriptive kWh Savings	0.00

FirstEnergy

Lighting Worksheet - General Information Form

Enter general project information in the yellow cells below. If all or a portion of the lighting project is considered a major renovation or new construction, then specify the calculation method below. Customers may leave the Project ID and External ID fields blank as those fields are used for internal processing.
If the deemed facility hours as defined on the *Instructions tab* are not a good fit to the facility's actual hours of operation, custom lighting schedules may be defined below for use in the *Lighting Inventory* calculations.

*Customer Name	Metroparks
*Project Site Name	Erie Canal
*Installation Address	
Project ID	
External ID	
New Construction Calculation Method	Building Area
New Construction Baseline	ASHRAE 90.1 2010

Is the Project Complete?	No
Total Equipment Cost	[illegible]

Custom Lighting Schedule Summary

		Annual Hours	CF
1	12 Hour days	4320	1.00
2	<< Input Schedule Name 2 >>		0.00
3	<< Input Schedule Name 3 >>		0.00
4	<< Input Schedule Name 4 >>		0.00
5	<< Input Schedule Name 5 >>		0.00
6	<< Input Schedule Name 6 >>		0.00
7	<< Input Schedule Name 7 >>		0.00
8	<< Input Schedule Name 8 >>		0.00

Customer Sector	

Custom schedules may defined in the tables below by editing the yellow cells. Keep in mind that additional information such as site inspections, customer interviews and data logging may be required to support and verify custom lighting schedules.
- Enter 1 to specify when the lighting equipment is on.
- Enter 0 to specify when the lighting equipment is off.
- Half hours can be specified by entering 0.5.

When complete, all yellow cells in the table should contain either a 1, 0 or 0.5
Please Note: The lighting schedule calculators function as a percent. Users have the option to enter in any number between 0 to 1 to define the percentage of time the lighting equipment is in operation for each one hour period (e.g. enter 0.25 for 15 minutes or .75 for 45 minutes).

12 Hour days

1

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Tuesday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Wednesday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Thursday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Friday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Saturday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Sunday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0

Holidays Observed Annually	[illegible]	Annual Hours	4320
Yearly Operating Weeks	52	Coincidence Factor	1.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 2 >>

2

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 3 >>

3

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 4 >>

4

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 5 >>

5

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 6 >>

6

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 7 >>

7

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 8 >>

8

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
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Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

Retrofit and New Construction Lighting Worksheet

FirstEnergy

Please enter this information on the General Information tab

Customer Name: Metroparks
Building Address: 0
Building Area

Calculation Method (New Construction)

If "Custom" is selected as the Post Fixture Category, please enter the lighting equipment details as a custom "Cut Sheet" fixture on the Fixture Identities tab. Custom fixtures can be entered in the Fixture Identities tab starting on row 950.

* 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 Installation [Retrofit]: *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		Canal Rd. Management Center	Exterior	Outdoor - Other	Uncooled	Unheated	16	mh250/1	295	4.72	
2	Retrofit		Merwin's Wharf	Exterior	Outdoor - Other	Uncooled	Unheated	20	mh250/1	295	5.90	
3	Retrofit		Canalway Center Parking Lot	Exterior	Outdoor - Other	Uncooled	Unheated	24	mh250/1	295	7.08	
4	Retrofit		Canalway Center Exterior Lights	Exterior	Outdoor - Other	Uncooled	Unheated	8	mh250/1	295	2.36	
5	Retrofit		Canal Rd. Management Center	interior	Public Assembly	Air Conditioned	Non-Electric Heat	40	f42ill	59	2.36	
6	Retrofit		Canal Rd. Management Center	interior	Public Assembly	Air Conditioned	Non-Electric Heat	18	f44ill	112	2.02	
7	Retrofit		Canal Rd. Management Center	interior	Public Assembly	Air Conditioned	Non-Electric Heat	64	f44ill	112	7.17	
8	Retrofit		Canal Rd. Management Center	interior	Public Assembly	Air Conditioned	Non-Electric Heat	2	f22ill	33	0.07	
9	Retrofit		Canal Rd. Management Center	interior	Public Assembly	Air Conditioned	Non-Electric Heat	2	f42ill	59	0.12	
10	Retrofit		Settlers Bluff Shelter, Morgan's Hollow Shelter	exterior	Outdoor - Other	Uncooled	Unheated	10	hps400/1	465	4.65	
11	Retrofit		Settlers Bluff Shelter, Morgan's Hollow Shelter	exterior	Outdoor - Other	Uncooled	Unheated	4	hps250/1	295	1.18	
12												
13												
14												
15												
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Totals								208			37.62	

Line Item	New Construction 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.	Lighting Power Density (W/unit)	Baseline kW per Space (kW)	Post Installation [Retrofit]: *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	Cost per Fixture from Itemized Invoice ($)	Calculated Cost Per Fixture ($)	LED Signage Linear Feet (if applicable)	Quantity of Doors (if applicable)	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					16	[illegible]	Corn Cob Style Lamp	$0.05 Per kWh	-	54		$176.69			cut sheet 1	54	0.86	
2					20	[illegible]	Parking Lot/Area Pole Mounted	$0.05 Per kWh	-	60		$172.29			cut sheet 2	60	1.20	
3					24	[illegible]	Parking Lot/Area Pole Mounted	$0.05 Per kWh	-	60		$172.29			cut sheet 3	60	1.44	
4					8	[illegible]	Parking Lot/Area Pole Mounted	$0.05 Per kWh	-	60		$172.29			cut sheet 4	60	0.48	
5					40	[illegible]	Tube LED Lamps - Type B (line voltage to socket)	$0.05 Per kWh	-	28		$17.72			cut sheet 5	28	1.12	
6					18	[illegible]	Troffer or Strip Fixture	$0.05 Per kWh	-	30		$46.97			cut sheet 6	30	0.54	
7					64	[illegible]	Troffer or Strip Fixture	$0.05 Per kWh	-	40		$41.15			cut sheet 7	40	2.56	
8					2	[illegible]	Troffer or Strip Fixture	$0.05 Per kWh	-	30		$1.71			cut sheet 8	30	0.06	
9					2	[illegible]	Troffer or Strip Fixture	$0.05 Per kWh	-	30		$16.58			cut sheet 9	30	0.06	
10					10	[illegible]	Wall Pack	$55 Per Fixture	-	100		$267.59			cut sheet 10	100	1.00	
11					4	[illegible]	Wall Pack	$0.05 Per kWh	-	80		$157.62			cut sheet 11	80	0.32	
Totals				-	208												9.66	

Line Item	Change in Connected Load (kW)	Use Applicant or Prescribed Hours?	Lighting Schedule	Equipment Full Load Hours (EFLH)	Coincidence Factor	Interactive Factor Demand (IF_{kW})	Interactive Factor Energy (IF_{kWh})	Pre Controls ESF	Post Controls ESF	Deemed Demand Savings (kW)	Deemed Energy Savings (kWh): Annual Energy Savings (kWh)	Annual Energy Savings (kWh) Controls Only	Total Incentive	Annual kWh Saved
1	3.86	Prescribed		3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	14,780.05	0.00	$739.00	14,780.05
2	4.70	Prescribed		3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	18,015.10	0.00	$900.76	18,015.10
3	5.64	Prescribed		3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	21,618.12	0.00	$1,080.91	21,618.12
4	1.88	Prescribed		3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	7,206.04	0.00	$360.30	7,206.04
5	1.24	Prescribed		2729	65.0%	20.00%	9.50%	0.0%	0.0%	0.97	3,705.44	0.00	$185.27	3,705.44
6	1.48	Prescribed		2729	65.0%	20.00%	9.50%	0.0%	0.0%	1.15	4,410.66	0.00	$220.53	4,410.66
7	4.61	Prescribed		2729	65.0%	20.00%	9.50%	0.0%	0.0%	3.59	13,769.88	0.00	$688.49	13,769.88
8	0.01	Prescribed		2729	65.0%	20.00%	9.50%	0.0%	0.0%	0.00	17.93	0.00	$0.90	17.93
9	0.06	Prescribed		2729	65.0%	20.00%	9.50%	0.0%	0.0%	0.05	173.32	0.00	$8.67	173.32
10	3.65	Prescribed		3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	13,990.65	0.00	$550.00	13,990.65
11	0.86	Prescribed		3833	0.0%	0.00%	0.00%	0.0%	0.0%	0.00	3,296.38	0.00	$164.82	3,296.38
Totals	27.97									5.76	100,983.37	-	$4,899.65	100,983.37

Project Estimated Summary

Lighting Incentive Program

Customer Name	Metroparks
Building Name	Erie Canal
Building Address	

Estimated Annual Energy Savings (kWh)	100,983.37
Demand Reduction (kW_{Summer})	5.76
Annual Operating Hours	3541
Total Calculated Project Incentive	$4,899.65

Equipment Category	kW	kWh	Quantity	Incentive
Lighting Controls	-	-	0	$0.00
Linear Fluorescent T8 & T5	-	-	0	$0.00
Linear LED	5.76	22,077.23	126	$1,103.86
Exit Signs	-	-	0	$0.00
LED Fixtures External	-	17,286.83	14	$714.82
LED Fixtures Internal	-	-	0	$0.00
LED Lamps	-	14,780.05	16	$739.00
LED Reach-in Refrigerator/Freezer Lighting	-	-	0	$0.00
LED Channel Signage	-	-	0	$0.00
Street and Area Lighting	-	46,839.26	52	$2,341.97
Custom - Process Improvement	-	-	0	$0.00

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Deemed kW Savings	5.76
As Found kW Savings	5.76
Total kW Savings	5.76
Deemed kWh Savings	100983.37
As Found kWh Savings	100983.37
Total kWh Savings	100983.37

Non Prescriptive kWh Savings	0.00

Lighting Worksheet - General Information Form

Enter general project information in the yellow cells below. If all or a portion of the lighting project is considered a major renovation or new construction, then specify the calculation method below. Customers may leave the Project ID and External ID fields blank as those fields are used for internal processing.
If the deemed facility hours as defined on the *Instructions tab* are not a good fit to the facility's actual hours of operation, custom lighting schedules may be defined below for use in the *Lighting Inventory* calculations.

*Customer Name	Metroparks
*Project Site Name	Brecksville
*Installation Address	
Project ID	
External ID	
New Construction Calculation Method	Building Area
New Construction Baseline	ASHRAE 90.1 2010

*Is the Project Complete?	No
Total Equipment Cost	[illegible]

Custom Lighting Schedule Summary

		Annual Hours	CF
1	12 Hour days	[illegible]	1.00
2	<< Input Schedule Name 2 >>		0.00
3	<< Input Schedule Name 3 >>		0.00
4	<< Input Schedule Name 4 >>		0.00
5	<< Input Schedule Name 5 >>		0.00
6	<< Input Schedule Name 6 >>		0.00
7	<< Input Schedule Name 7 >>		0.00
8	<< Input Schedule Name 8 >>		0.00

Customer Sector	

Custom schedules may defined in the tables below by editing the yellow cells. Keep in mind that additional information such as site inspections, customer interviews and data logging may be required to support and verify custom lighting schedules.
- Enter 1 to specify when the lighting equipment is on.
- Enter 0 to specify when the lighting equipment is off.
- Half hours can be specified by entering 0.5.

When complete, all yellow cells in the table should contain either a 1, 0 or 0.5
Please Note: The lighting schedule calculators function as a percent. Users have the option to enter in any number between 0 to 1 to define the percentage of time the lighting equipment is in operation for each one hour period (e.g., enter 0.25 for 15 minutes or .75 for 45 minutes).

12 Hour days

1

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Tuesday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Wednesday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Thursday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Friday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Saturday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0
Sunday								1	1	1	1	1	1	1	1	1	1	1	1						12.0	624.0

Holidays Observed Annually	[illegible]	Annual Hours	[illegible]
Yearly Operating Weeks	52	Coincidence Factor	1.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 2 >>

2

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
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Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 3 >>

3

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 4 >>

4

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 5 >>

5

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 6 >>

6

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 7 >>

7

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

<< Input Schedule Name 8 >>

8

	Midnight to 1	1 to 2 a.m.	2 to 3 a.m.	3 to 4 a.m.	4 to 5 a.m.	5 to 6 a.m.	6 to 7 a.m.	7 to 8 a.m.	8 to 9 a.m.	9 to 10 a.m.	10 to 11 a.m.	11 to Noon	Noon to 1	1 to 2 p.m.	2 to 3 p.m.	3 to 4 p.m.	4 to 5 p.m.	5 to 6 p.m.	6 to 7 p.m.	7 to 8 p.m.	8 to 9 p.m.	9 to 10 p.m.	10 to 11 p.m.	11 to Midnight	Hours/day	Hours/yr
Monday																									0.0	0.0
Tuesday																									0.0	0.0
Wednesday																									0.0	0.0
Thursday																									0.0	0.0
Friday																									0.0	0.0
Saturday																									0.0	0.0
Sunday																									0.0	0.0

Holidays Observed Annually		Annual Hours	0
Yearly Operating Weeks		Summer PJM Coincidence Factor	0.00
Unoccupied Summer Peak Weeks			

Retrofit and New Construction Lighting Worksheet

FirstEnergy

Please enter this information on the General Information tab

Customer Name [illegible]

Building Address [illegible]

Building Area [illegible]

Calculation Method (New Construction)

* Indicates a required field

If "Custom" is selected as the Post Fixture Category, please enter the lighting equipment details as a custom "Cut Sheet" fixture on the Fixture Identities tab. Custom fixtures can be entered in the Fixture Identities tab starting on row 950.

								Pre Installation [Retrofit]										Post Installation [Retrofit]																								Deemed Energy Savings (kWh)			
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)	New Construction 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.	Lighting Power Density (W/unit)	Baseline kW per Space (kW)	*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	Cost per Fixture from Itemized Invoice ($)	Calculated Cost Per Fixture ($)	LED Signage Linear Feet (If applicable)	Quantity of Doors (If applicable)	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	Change in Connected Load (kW)	Use Applicant or Prescribed Hours?	Lighting Schedule	Equipment Full Load Hours (EFLH)	Coincidence Factor	Interactive Factor Demand (IF_{kW})	Interactive Factor Energy (IF_{kWh})	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	Retrofit		Management Center Office/RR	Interior	Public Assembly	Air Conditioned	Non-Electric Heat	14	f44ee	112	1.57						10	[illegible]	Troffer or Strip Fixture	$0.05 Per kWh	[illegible]	40		$34.21			cut sheet 1	40	0.40		1.17	Prescribed		2729	65.0%	20.00%	9.50%	0.0%	0.0%	0.91	3,490.28	0.00	$174.51	3,490.28
2	Retrofit		Mgmt Center Plumbing/Electrical Storage	Interior	Public Assembly	Air Conditioned	Non-Electric Heat	1	f41ill	31	0.03						1	[illegible]	Troffer or Strip Fixture	$0.05 Per kWh	[illegible]	30		$0.29			cut sheet 2	30	0.03		0.00	Prescribed		2729	65.0%	20.00%	9.50%	0.0%	0.0%	0.00	2.99	0.00	$0.15	2.99
3	Retrofit		Management Center Attic/Storage	Interior	Public Assembly	Air Conditioned	Non-Electric Heat	5	f32se	109	0.55						5	[illegible]	Troffer or Strip Fixture	$0.05 Per kWh	[illegible]	30		[illegible]			cut sheet 3	30	0.15		0.40	Prescribed		2729	65.0%	20.00%	9.50%	0.0%	0.0%	0.31	1,180.36	0.00	$59.02	1,180.36
4	Retrofit		Management Center Back Workspace	Interior	Public Assembly	Air Conditioned	Non-Electric Heat	11	f42ill	109	1.20						11	[illegible]	Troffer or Strip Fixture	$0.05 Per kWh	[illegible]	30		$24.14			cut sheet 4	30	0.33		0.87	Prescribed		2729	65.0%	20.00%	9.50%	0.0%	0.0%	0.68	2,596.79	0.00	$129.84	2,596.79
5	Retrofit		Management Center Attic/Storage	Interior	Public Assembly	Air Conditioned	Non-Electric Heat	12	f42ill	58	0.71						12	[illegible]	Troffer or Strip Fixture	$0.05 Per kWh	[illegible]	15		$12.89			cut sheet 5	15	0.18		0.53	Prescribed		2729	65.0%	20.00%	9.50%	0.0%	0.0%	0.41	1,577.80	0.00	$78.89	1,577.80
6	Retrofit		Management Center RR	Interior	Public Assembly	Air Conditioned	Non-Electric Heat	5	f42ill	58	0.30						5	[illegible]	Troffer or Strip Fixture	$0.05 Per kWh	[illegible]	20		[illegible]			cut sheet 6	20	0.10		0.20	Prescribed		2729	65.0%	20.00%	9.50%	0.0%	0.0%	0.15	582.71	0.00	$29.14	582.71
7	Retrofit		Management Center RR	Interior	Public Assembly	Air Conditioned	Non-Electric Heat	4	i150/1	150	0.60						4	[illegible]	PAR/BR/R 30, PAR 38, or BR40 LED Lamp	$5 Per Lamp	[illegible]	30		$35.15			cut sheet 7	30	0.12		0.48	Prescribed		2729	65.0%	20.00%	9.50%	0.0%	0.0%	0.37	1,434.36	0.00	$20.00	1,434.36
8	Retrofit		Management Center Outdoor lights	Interior	Public Assembly	Air Conditioned	Non-Electric Heat	5	i40/1	40	0.20						5	[illegible]	PAR/BR/R 30, PAR 38, or BR40 LED Lamp	$5 Per Lamp	[illegible]	4.5		$10.60			cut sheet 8	5	0.02		0.18	Prescribed		2729	65.0%	20.00%	9.50%	0.0%	0.0%	0.14	530.42	0.00	$25.00	530.42
9	Retrofit		Nature Center	Interior	Public Assembly	Air Conditioned	Non-Electric Heat	6	i40/1	40	0.24						5	[illegible]	PAR/BR/R 30, PAR 38, or BR40 LED Lamp	$5 Per Lamp	[illegible]	4.5		$12.74			cut sheet 9	5	0.02		0.22	Prescribed		2729	65.0%	20.00%	9.50%	0.0%	0.0%	0.17	649.95	0.00	$25.00	649.95
10	Retrofit		Sleepy Hollow Clubhouse	Interior	Public Assembly	Air Conditioned	Non-Electric Heat	61	i100/1	100	6.10						45	[illegible]	PAR/BR/R 30, PAR 38, or BR40 LED Lamp	$5 Per Lamp	[illegible]	9		$37.07			cut sheet 10	9	0.41		5.70	Prescribed		2729	65.0%	20.00%	9.50%	0.0%	0.0%	4.44	17,018.11	0.00	$225.00	17,018.11
11	Retrofit																										cut sheet 11					Prescribed						0.0%	0.0%	0.00		0.00	$0.00	-
Totals								124			11.49					-	103												1.76		9.73									7.59	29,063.77	-	$766.35	29,063.77

Line items 12 through 250 are printed as empty rows.

Project Estimated Summary

Lighting Incentive Program

Customer Name	Metroparks
Building Name	Brecksville
Building Address	

Estimated Annual Energy Savings (kWh)	29,063.77
Demand Reduction (kW_{Summer})	7.59
Annual Operating Hours	2729
Total Calculated Project Incentive	$766.55

Equipment Category	kW	kWh	Quantity	Incentive
Lighting Controls	-	-	0	$0.00
Linear Fluorescent T8 & T5	-	-	0	$0.00
Linear LED	2.46	9,430.93	44	$471.55
Exit Signs	-	-	0	$0.00
LED Fixtures External	-	-	0	$0.00
LED Fixtures Internal	-	-	0	$0.00
LED Lamps	5.12	19,632.84	59	$295.00
LED Reach-in Refrigerator/Freezer Lighting	-	-	0	$0.00
LED Channel Signage	-	-	0	$0.00
Street and Area Lighting	-	-	0	$0.00
Custom - Process Improvement	-	-	0	$0.00

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Deemed kW Savings	7.59
As Found kW Savings	8.13
Total kW Savings	8.13
Deemed kWh Savings	29063.77
As Found kWh Savings	31134.63
Total kWh Savings	31134.63

Non Prescriptive kWh Savings	0.00

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Case No(s). 20-1049-EL-EEC

Summary: Application Application by Cleveland Metropolitan Park District for Mercantile Energy Efficiency rebate electronically filed by Mr. William A Smyser on behalf of Cleveland Metropolitan Park District