Ohio | Public Utilities Commission

13 -0077

Case No.:   -EL-EEC

Mercantile Customer: London City Schools

Electric Utility: Ohio Edison Company

Program Title or
Description: New MS and HS upgrades

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

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

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

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

Section 1: Mercantile Customer Information

Name:London City Schools

Principal address:380 Elm St. London, OH 43140

Address of facility for which this energy efficiency program applies:270 E Keny London OH 43140 & 336 Elm St. London, OH. 43140

Name and telephone number for responses to questions:Neil Wittberg 614 949 5616

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

☒ The customer uses more than seven hundred thousand kilowatt hours per year at the above facility. (Please attach documentation.)

☐ The customer is part of a national account involving multiple facilities in one or more states. (Please attach documentation.)

Section 2: Application Information

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

☐ Individually, without electric utility participation.

☒ Jointly with the electric utility.

B) The electric utility is: Ohio Edison Company

C) The customer is offering to commit (check any that apply):

☒ Energy savings from the customer's energy efficiency program. (Complete Sections 3, 5, 6, and 7.)

☐ Capacity savings from the customer's demand response/demand reduction program. (Complete Sections 4, 5, 6, and 7.)

☐ Both the energy savings and the capacity savings from the customer's energy efficiency program. (Complete all sections of the Application.)

Section 3: Energy Efficiency Programs

A) The customer's energy efficiency program involves (check those that apply):

☐ Early replacement of fully functioning equipment with new equipment. (Provide the date on which the customer replaced fully functioning equipment, and the date on which the customer would have replaced such equipment if it had not been replaced early. Please include a brief explanation for how the customer determined this future replacement date (or, if not known, please explain why this is not known)). **If Checked, Please see Exhibit 1 and Exhibit 2**

☐ Installation of new equipment to replace equipment that needed to be replaced The customer installed new equipment on the following date(s): _____ .

☒ Installation of new equipment for new construction or facility expansion. The customer installed new equipment on the following date(s):

SEE EXHIBIT 2.

☐ Behavioral or operational improvement.

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

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

Annual savings: _____ kWh

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

Annual savings: _____ kWh

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

3) If you checked the box indicating that the project involves equipment for new construction or facility expansion, then calculate the annual savings [(kWh used by less efficient new equipment) – (kWh used by higher efficiency new equipment) = (kWh per year saved)]. Please attach your calculations and record the results below:

   Annual savings: 446,095 kWh

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

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

Section 4: Demand Reduction/Demand Response Programs

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

☐ Coincident peak-demand savings from the customer's energy efficiency program.

☐ Actual peak-demand reduction. (Attach a description and documentation of the peak-demand reduction.)

☐ Potential peak-demand reduction (check the one that applies):

☐ The customer's peak-demand reduction program meets the requirements to be counted as a capacity resource under a tariff of a regional transmission organization (RTO) approved by the Federal Energy Regulatory Commission.

☐ The customer's peak-demand reduction program meets the requirements to be counted as a capacity resource under a program that is equivalent to an RTO program, which has been approved by the Public Utilities Commission of Ohio.

B) On what date did the customer initiate its demand reduction program?

_____

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

_____ kW

Section 5: Request for Cash Rebate Reasonable Arrangement (Option 1) or Exemption from Rider (Option 2)

Under this section, check the box that applies and fill in all blanks relating to that choice.

Note: If Option 2 is selected, the application will not qualify for the 60-day automatic approval. All applications, however, will be considered on a timely basis by the Commission.

A) The customer is applying for:

☒ Option 1: A cash rebate reasonable arrangement.

OR

☐ Option 2: An exemption from the energy efficiency cost recovery mechanism implemented by the electric utility.

OR

☐ Commitment payment

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

Option 1: A cash rebate reasonable arrangement, which is the lesser of (show both amounts):

☒ A cash rebate of $27,388. (Rebate shall not exceed 50% project cost. Attach documentation showing the methodology used to determine the cash rebate value and calculations showing how this payment amount was determined.)

Option 2: An exemption from payment of the electric utility's energy efficiency/peak demand reduction rider.

☐ An exemption from payment of the electric utility's energy efficiency/peak demand reduction rider for _____ months (not to exceed 24 months). (Attach calculations showing how this time period was determined.)

OR

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

OR

☐ Ongoing exemption from payment of the electric utility's energy efficiency/peak demand reduction rider for an initial period of 24 months because this program is part of the customer's ongoing efficiency program. (Attach documentation that establishes the ongoing nature of the program.) In order to continue the exemption beyond the initial 24 month period, the customer will need to provide a future application establishing additional energy savings and the continuance of the organization's energy efficiency program.)

Section 6: Cost Effectiveness

The program is cost effective because it has a benefit/cost ratio greater than 1 using the (choose which applies):

☐ Total Resource Cost (TRC) Test. The calculated TRC value is: _____(Continue to Subsection 1, then skip Subsection 2)

☒ Utility Cost Test (UCT) . The calculated UCT value is: **See Exhibit 3** (Skip to Subsection 2.)

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

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

The electric utility's avoided supply costs were _____.

Our program costs were _____.

The incremental measure costs were _____.

<u>Subsection 2: UCT Used (please fill in all blanks).</u>

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

Case No.: 13-0077 -EL-EEC

State of Ohio :

Kristine Blind, Affiant, being duly sworn according to law, deposes and says that:

1. I am the duly authorized representative of:

    London City Schools
    [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.

Kristine Blind, Treasurer
Signature of Affiant & Title

Sworn and subscribed before me this __1st__ day of __August__ , __2012__ Month/Year

Amy Webb
Signature of official administering oath

Amy Webb, Admin Asst.
Print Name and Title

My commission expires on __7.29.15__

AMY WEBB
Notary Public, State of Ohio
My Commission Expires 7-29-15

Exhibit 1

Customer Legal Entity Name: London City Schools

Site Address: London City Schools High School
Principal Address: 336 Elm St.

Project No.	Project Name	Narrative description of your program including, but not limited to, make, model, and year of any installed and replaced equipment:	Description of methodologies, protocols and practices used in measuring and verifying project results	What date would you have replaced your equipment if you had not replaced it early? Also, please explain briefly how you determined this future replacement date.	Please describe the less efficient new equipment that you rejected in favor of the more efficient new equipment.
1	Lighting	Many areas of the High School/ Elementary were retrofitted with new lighting and occupancy sensors and LED exit signs	Exit signs and occupancy sensors were counted from the plans and input to the lighting count sheet and then the lighting rebate calculator. ComCheck data was input to the lighting rebate calculator to determine the cash rebate amount.	N/A	Ashrae minimum equipment
2	VFDs	Variable frequency drives were added to many of the fan motors throughout the facility	Data was gathered from the plans and input to the motors and drives calculator to determine the cash rebate amount. kWh savings were determined based on a 25% reduction in energy use attributable to the installation of VFDs.	N/A	N/A
3	Heat Recovery Wheels	Heat recovery wheel were installed on the New Air handlers at London HS	3 Heat wheels were installed at London HS. kWh savings were calculated based on a binned weather data in the HeatWheelCalc file (attachment O) and this was input to the custom rebate calculator to determine cash rebate amount	N/A	no heat wheels
4	Motors	Nema premium motors were installed on many of the new air handlers	Data was gathered from the motor tags at the facility and input to the motors and drives calculator to determine the total cash rebate.	N/A	Ashrae minimum

Exhibit 2

Customer Legal Entity Name:	London City Schools
Site Address:	London City Schools High School
Principal Address:	336 Elm St.

	Unadjusted Usage, kwh (A)	Weather Adjusted Usage, kwh (B)	Weather Adjusted Usage with Energy Efficiency Addbacks, kwh (c) *Note 1*
2011	4,037,274	4,037,274	4,227,661
			79,806
Average	**4,037,274**	**4,037,274**	**2,153,734**

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*
1	Lighting	08/01/2010	$255,000	$127,500	41,264	41,264	-	$3,407	$2,555
2	VFDs	08/01/2010	$13,500	$6,750	92,032	92,032	-	$4,050	$3,038
3	Heat Recovery Wheels	08/01/2010	$15,000	$7,500	52,257	52,257	-	$4,181	$3,136
4	Motors	08/01/2010	$7,470	$3,735	4,834	4,834	-	$484	$363
					-	-	-		
					-	-	-		
					-	-	-		
	Total		**$290,970**		**190,387**	**190,387**	**0**	**$12,122**	**$9,092**

Docket No. 13-0077
Site: 336 Elm St.

Notes

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

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

**Commitment
Payment
$**

$0

Exhibit 3 Utility Cost Test

UCT = Utility Avoided Costs / Utility Costs

Project	Total Annual Savings, MWh (A)	Utility Avoided Cost $/MWh (B)	Utility Avoided Cost $ (C)	Utility Cost $ (D)	Cash Rebate $ (E)	Administrator Variable Fee $ (F)	Total Utility Cost $ (G)	UCT (H)
1	41	$ 308	$ 12,721	$ 1,013	$2,555	$413	$ 3,980	3.2
2	92	$ 308	$ 28,372	$ 1,013	$3,038	$920	$ 4,970	5.71
3	52	$ 308	$ 16,110	$ 1,013	$3,136	$523	$ 4,671	3.45
4	5	$ 308	$ 1,490	$ 1,013	$363	$48	$ 1,424	1.05
Total	**190**	**$ 308**	**58,693**	**4,050**	**$9,092**	**$1,904**	**15,045**	**3.9**

Notes

(A) From Exhibit 2, = kWh saved / 1000

(B) This value represents avoided energy costs (wholesale energy prices) from the Department of Energy, Energy Information Administration's 2009 Annual Energy Outlook (AEO) low oil prices case. The AEO represents a national average energy price, so for a better representation of the energy price that Ohio customers would see, a Cinergy Hub equivalent price was derived by applying a ratio based on three years of historic national average and Cinergy Hub prices.This value is consistent with avoided cost assumptions used in EE&PDR Program Portfolio and Initial Benchmark Report, filed Dec 15, 2009 (See Section 8.1, paragraph a).

(C) = (A) * (B)

(D) Represents the utility's costs incurred for self-directed mercantile applications for applications filed and applications in progress. Includes incremental costs of legal fees, fixed administrative expenses, etc.

(E) This is the amount of the cash rebate paid to the customer for this project.

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

(G) = (D) + (E) + (F)

(H) =(C) / (G)

London City Schools ~ London City Schools High School
Docket No. 13-0077

Site: 336 Elm St.

Lighting Form

Lighting Inventory Form

Applicant Name: London City Schools
Facility Name: High School
Date:

Line Item	Building Address	Floor	Area Description	Interior or Exterior Fixture	Predomint Space Type	Area Cooling	Pre Fixture Qty	Pre Fixture Code	Pre Watts Fixture (W)	Pre kW Space (kW)	Existing Control	Existing Sensor Quantity	Post Fixture Qty	Post Fixture Code	Post Watts Fixture (W)	Post kW Space (kW)	Proposed Control	Proposed Sensor Quantity	Interior Change in Connected Load (kW) excluding CFLs or Exit Signs	Exterior Change in Connected Load (kW) excluding CFLs or Exit Signs	Change in Connected Load (kW) CFL or LED exit sign	Applicant Coincidence Factor (CF) Estimate	Coincidence Factor	Interactive Factor (demand)	Interactive Factor (energy)	Pre Controls Factor	Post Controls Factor	Interior Demand Savings (kW) excluding CFLs or Exit Signs	Exterior Demand Savings (kW) excluding CFLs or Exit Signs	Demand Savings (kW) CFL or LED Exit Signs	Applicant Equivalent Full Load Hours (EFLH) Estimate	Prescribed Equivalent Full Load Hours	Annual Interior Fixture kWh Saved (excluding CFLs or Exit Signs)	Annual Exterior Fixture kWh Saved (excluding CFLs or Exit Signs)	Annual kWh Saved (CFLs or LED exit signs only)	Annual kWh Saved (Sensors only)	Post Fixture Cut Sheet Number
e.g.	400 North Street	2	Office	Interior	Office - Small	Cooled Space	3	F44ILL	112	0.34	NONE		3	CFT55/1-BX	56	0.17	OCC	3			0.17	84%	84%	34%	12%		30%			0.19	2,808	3,435			646	194	1
e.g.	Example	1	Restaurant	Exterior	Restaurant - Fast Food	Uncooled space	5	Example Cut Sheet 1	50	0.25	OCC	5	5	Example Cut Sheet 2	25	0.13	DAYLTG	5		0.13		88%	88%			30%	50%		0.11		8,760		4,156		288		260	1A
1	336 Elm St. London OH	1	School	Interior	Education - Primary School	Cooled Space	1	Cut Sheet 2	48,290	48.29	NONE		1	Cut Sheet 1	47,156	47.16	OCC	109	1.13				57%	34%	12%		35%	0.87				2,080	2,642			32,956	
2	336 Elm St. London OH	1	School	Interior	Exit Signs	Cooled Space	55	ECF8/1	12	0.66	NONE		55	ELED1.5/1	2	0.08	NONE				0.58		100%	34%	12%					0.77		8,760			5,666		
3											NONE						NONE																					
4											NONE						NONE																					

Lighting Form

Line Item	PROJECT BASIC INFORMATION						PRE-INSTALLATION							POST-INSTALLATION							Energy Calculations																			Post Fixture Cut Sheet Number
	Building Address	Floor	Area Description	Interior or Exterior Fixture	Predominant Space Type	Area Cooling	Pre Fixture Qty	Pre Fixture Code	Pre Watts / Fixture (W)	Pre kW / Space (kW)	Existing Control drop down	Existing Sensor Quantity when applicable	Post Fixture Qty	Post Fixture Code	Post Watts / Fixture (W)	Post kW / Space (kW)	Proposed Control Please enter EdFLTG, OCC or NONE.	Proposed Sensor Quantity when applicable	Interior Change in Connected Load (kW) excluding CFLs or Exit Signs	Exterior Change in Connected Load (kW) excluding CFLs or Exit Signs	Change in Connected Load (kW) CFL or LED exit sign	Applicant Coincidence Factor (CF) Estimate	Coincidence Factor	Interactive Factor (demand)	Interactive Factor (energy)	Pre Controls Factor	Post Controls Factor	Interior Demand Savings (kW) excluding CFLs or Exit Signs	Exterior Demand Savings (kW) excluding CFLs or Exit Signs	Demand Savings (kW) CFLs or LED Exit Signs	Applicant Equivalent Full Load Hours	Prescribed Equivalent Full Load Hours (EFLH) Estimate	Annual Interior Fixture kWh Saved (excluding CFLs or Exit Signs)	Annual Exterior Fixture kWh Saved (excluding CFLs or Exit Signs)	Annual kWh Saved (CFL or LED exit signs only)	Annual kWh Saved (Sensors only)	
151											NONE						NONE																					
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Totals							56		48.95				56		47.24				1.13	1.71	0.58			1.64			0.87	0.77						2,642	41,264	5,868	32,956	

Note: If your total change in connected load is greater than or equal to 50 kW the cell above will be red. Please see row 4 on the Instructions tab for information on adjusting the predominant space type to "Other" and estimating CF and EFLH values.

Project Estimated Annual Savings Summary

Estimated Annual kWh Savings	41,264
Total Change in Connected Load	1.71

Annual Estimated Cost Savings	$4,126.40
Annual Operating Hours	5,420

Interior Lighting Incentive @ $0.05/kWh (excluding retrofit CFLs, sensors, or LED exit signs)	$132.10
Exterior Lighting Incentive @ $0.05/kWh (excluding retrofit CFLs, sensors, or LED exit signs)	$0.00
Total retrofit CFL Incentive @ $1/screw-in CFL lamp; $15/hard-wired CFL lamp (includes all retrofit CFLs, both interior and exterior)	$0.00
Total retrofit LED Exit Incentive @ $10/exit sign	$550.00
Total Lighting Controls Incentive @ $25/sensor (includes all Lighting Controls, both interior and exterior)	$2,725.00

Total Calculated Incentive	$3,407.10

Total Fixture Quantity excluding retrofit CFLs and LED Exit Sign	1
Total Lamp Quantity for retrofit Screw-In CFLs	0
Total Lamp Quantity for retrofit Hard-Wired CFLs	0
Total Fixture Quantity for retrofit LED Exit Signs	55
Total Quantity for Occupancy Sensors	109
Total Quantity for Daylight Sensors	0

Please briefly describe how you estimated your coincidence factor (CF) and applicant equivalent full-load hours (EFLH) for facility type "Other" indicated on the Lighting Form tab

Demand Savings (For Internal Use Only)	1.64

London City Schools: HS
Motor Savings
P-4

Tag	Quantity	Hours Of Operation	Loading	LF	Enclosure	Make	Model	HP	EFF %	RPM	Minimum Code Efficiency	Savings (kWH)	Savings (kW)
AHU-6 &7	2	4250	VFD	0.8	ODP	Leeson	C213T17DF	7.5	91	1760	88.5	1476.299125	0.3473645
AHU-09	1	4250	VFD	0.8	ODP	Baldor	EM2535T	30	94.1	1770	92.4	1859.671943	0.437569869
AHU-10	1	4250	VFD	0.8	ODP	GE	5KE256AT	20	93	1755	91	1498.522982	0.352593643
											Totals	4834.49405	1.137528012

London City Schools: HS
VFD Savings
P-2

Motor Application	VFD Make	Model	Tag	Location	Enclosure	Runtime	LF	Model	HP	Quantity	EFF	Savings (kWh)	Savings (KW)
supply fan	yaskawa	E7	AHU-01, AHU-08	supply fan	ODP	4250	0.8	EFM2513T	15	2	93	20454.83871	0
supply fan	yaskawa	E7	AHU-2, AHU-09E,	supply fan	ODP	4250	0.8	EFM2515T	20	3	93	40909.67742	0
supply fan	yaskawa	E7	AHU-06, AHU-07	supply fan	ODP	4250	0.8	C213T17DI	7.5	2	91	10452.1978	0
supply fan	yaskawa	E7	ahu-09	supply fan	ODP	4250	0.8	EM2535T	30	1	94.1	20215.72795	0
											Totals	92032	

Heat Recovery Unit Calculations

HEAT RECOVERY UNIT SAVINGS SUMMARY			
	AHU 6 & 10	AHU 7 & 8	AHU-9	TOTAL
kWh:	11,930.1	18,291.1	22,035.3	52,256.5
Dollars:	$ 954.41	1,463.3	1,762.8	$ 4,180.52
75%	$ 715.80	1,097.5	1,322.1	$ 3,135.39
Accepted Measure Cost	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ 15,000.00

USA_OH_Columbus-Port.Columbus.Intl.AP.724280_TMY3.bin
HEAT RECOVERY UNIT SAVINGS
AHU 6 & 10

INPUTS

Minimum Fraction Outdoor Air:	23%
Summer Heat Recover Effectiveness:	71.0%
Summer Set Point Temperature:	72 F
Set Point Enthalpy:	26.39 Btu/lba
Supply Air Temperature:	55 F
Supply Air Enthalpy:	22.57 Btu/lba
Supply Air Volume:	18535 cfm
Supply Air Density:	0.075 lb/ft^3

Rate:	$0.08
75% Load EER:	11.4
SAVINGS	
Cooling kWh:	11,930.08
Dollars:	$954.41
75%	$715.80

USA_OH_Columbus-Port.Columbus.Intl.AP.724280_TMY3.bin

StrTemp	EndTemp	Toa(F)	hoa(Btu/lba)	hrs	foa	Tma(F)	hma(Btu/lba)	Q (mmBTU)
105	109	107.0	0	0	23%	79.9	20.46	0.00
100	104	102.0	0	0	23%	78.8	20.46	0.00
95	99	97.0	0	0	23%	77.6	20.46	0.00
90	94	93.0	41.4	3	23%	76.7	29.77	0.60
85	89	87.2	37.7	51	23%	75.4	28.94	7.68
80	84	81.9	34.6	233	23%	74.2	28.24	25.48
75	79	76.9	31.8	322	23%	73.1	27.61	23.19
70	74	72.4	30.5	262	23%	72.1	27.32	14.33
65	69	67.9	28.4	272	100%	67.9	28.40	32.31
60	64	62.7	24.6	305	100%	62.7	24.60	32.40
55	59	57.1	21.4	206	100%	57.1	21.40	0.00
50	54	52.0	18.7	228	85%	55.0	19.85	0.00
45	49	47.5	16.6	139	69%	55.0	19.60	0.00
40	44	43.0	14.6	149	59%	55.0	19.48	0.00
35	39	37.5	12.5	228	49%	55.0	19.55	0.00
30	34	32.2	10.6	186	43%	55.0	19.65	0.00
25	29	27.5	8.8	113	38%	55.0	19.67	0.00
20	24	23.4	7.5	85	35%	55.0	19.78	0.00
15	19	17.8	5.7	67	31%	55.0	19.90	0.00
10	14	12.2	3.9	43	28%	55.0	20.00	0.00
5	9	7.1	2.6	17	26%	55.0	20.16	0.00
0	4	2.5	1.3	9	24%	55.0	20.26	0.00
-5	-1	-0.6	0.5	2	23%	55.0	20.33	0.00
-10	-6	-8	0	0	23%	54.0	20.46	0.00
				0				**136.00**
				0				
				0				
				0				

USA_OH_Columbus-Port.Columbus.Intl.AP.724280_TMY3.bin

HEAT RECOVERY UNIT SAVINGS

AHU 7 & 8

INPUTS							
Minimum Fraction Outdoor Air:	41%				Rate:	$0.08	
Summer Heat Recover Effectiveness:	71.0%	Winter ht recov eff	67%		75% Load EER:	11.4	
Summer Set Point Temperature:	72 F	Winter Set Point	70		SAVINGS		
Set Point Enthalpy:	26.39 Btu/lba	Set Point Enthalpy:	22.72		Cooling kWh:	18,291.08	
Supply Air Temperature:	55 F				Dollars:	$1,463.29	
Supply Air Enthalpy:	22.57 Btu/lba				75%	$1,097.46	
Supply Air Volume:	18310 cfm						
Supply Air Density:	0.075 lb/ft^3						

USA_OH_Columbus-Port.Columbus.Intl.AP.724280_TMY3.bin

StrTemp	EndTemp	Toa(F)	hoa(Btu/lba)	hrs		foa	Tma(F)	hma(Btu/lba)	Q (mmBTU)
105	109	107.0	0	0		41%	86.5	15.47	0.00
100	104	102.0	0	0		41%	84.4	15.47	0.00
95	99	97.0	0	0		41%	82.4	15.47	0.00
90	94	93.0	41.4	3		41%	80.7	32.61	1.09
85	89	87.2	37.7	51		41%	78.3	31.07	13.97
80	84	81.9	34.6	233		41%	76.1	29.79	46.31
75	79	76.9	31.8	322		41%	74.0	28.63	42.16
70	74	72.4	30.5	262		41%	72.2	28.09	26.05
65	69	67.9	28.4	272		100%	67.9	28.40	31.92
60	64	62.7	24.6	305		100%	62.7	24.60	32.01
55	59	57.1	21.4	206		100%	57.1	21.40	15.01
50	54	52.0	18.7	228		85%	55.0	19.85	43.01
45	49	47.5	16.6	139		69%	55.0	19.60	32.59
40	44	43.0	14.6	149		59%	55.0	19.48	39.15
35	39	37.5	12.5	228		49%	55.0	19.55	63.39
30	34	32.2	10.6	186		43%	55.0	19.65	53.16
25	29	27.5	8.8	113		41%	53.6	19.11	35.95
20	24	23.4	7.5	85		41%	51.9	18.57	29.57
15	19	17.8	5.7	67		41%	49.6	17.83	26.06
10	14	12.2	3.9	43		41%	47.2	17.08	18.50
5	9	7.1	2.6	17		41%	45.1	16.54	7.82
0	4	2.5	1.3	9		41%	43.2	16.01	4.41
-5	-1	-0.6	0.5	2		41%	41.9	15.67	1.02
-10	-6	-8	0	0		41%	38.9	15.47	0.00
				0					**563.12**
				0					
				0					
				0					

USA_OH_Columbus-Port.Columbus.Intl.AP.724280_TMY3.bin

HEAT RECOVERY UNIT SAVINGS

AHU-9

INPUTS				Rate:	$0.08
Minimum Fraction Outdoor Air:	40%			75% Load EER:	11.4
Summer Heat Recover Effectiveness:	71.0%			SAVINGS	
Summer Set Point Temperature:	72 F			Cooling kWh:	22,035.34
Set Point Enthalpy:	26.39 Btu/lba			Dollars:	$1,762.83
Supply Air Temperature:	55 F			75%	$1,322.12
Supply Air Enthalpy:	22.57 Btu/lba				
Supply Air Volume:	24320 cfm				
Supply Air Density:	0.075 lb/ft^3				

USA_OH_Columbus-Port.Columbus.Intl.AP.724280_TMY3.bin

StrTemp	EndTemp	Toa(F)	hoa(Btu/lba)	hrs		foa	Tma(F)	hma(Btu/lba)	Q (mmBTU)
105	109	107.0	0	0		40%	86.0	15.84	0.00
100	104	102.0	0	0		40%	84.0	15.84	0.00
95	99	97.0	0	0		40%	82.0	15.84	0.00
90	94	93.0	41.4	3		40%	80.4	32.40	1.40
85	89	87.2	37.7	51		40%	78.1	30.92	17.92
80	84	81.9	34.6	233		40%	76.0	29.68	59.43
75	79	76.9	31.8	322		40%	74.0	28.56	54.10
70	74	72.4	30.5	262		40%	72.2	28.04	33.44
65	69	67.9	28.4	272		100%	67.9	28.40	42.40
60	64	62.7	24.6	305		100%	62.7	24.60	42.51
55	59	57.1	21.4	206		100%	57.1	21.40	0.00
50	54	52.0	18.7	228		85%	55.0	19.85	0.00
45	49	47.5	16.6	139		69%	55.0	19.60	0.00
40	44	43.0	14.6	149		59%	55.0	19.48	0.00
35	39	37.5	12.5	228		49%	55.0	19.55	0.00
30	34	32.2	10.6	186		43%	55.0	19.65	0.00
25	29	27.5	8.8	113		40%	54.2	19.36	0.00
20	24	23.4	7.5	85		40%	52.6	18.84	0.00
15	19	17.8	5.7	67		40%	50.3	18.12	0.00
10	14	12.2	3.9	43		40%	48.1	17.40	0.00
5	9	7.1	2.6	17		40%	46.0	16.88	0.00
0	4	2.5	1.3	9		40%	44.2	16.36	0.00
-5	-1	-0.6	0.5	2		40%	43.0	16.04	0.00
-10	-6	-8	0	0		40%	40.0	15.84	0.00
				0					**251.20**
				0					
				0					
				0					

USA_OH_Columbus-Port.Columbus.Intl.AP.724280_TMY3.bin

StrTemp	EndTemp	T(F)	Twb(F)	h(Btu/lba)	w(lbw/lba)	hrs1-8	hrs9-16	hrs17-24	hrs1-24
105	109	107	0	0	0	0	0	0	0
100	104	102	0	0	0	0	0	0	0
95	99	97	0	0	0	0	0	0	0
90	94	93	78.3	41.4	0.0173	0	3	0	3
85	89	87.2	74.2	37.7	0.0152	0	51	15	66
80	84	81.9	70.4	34.6	0.0136	1	233	111	345
75	79	76.9	66.9	31.8	0.0122	26	322	230	578
70	74	72.4	65.1	30.5	0.012	115	262	269	646
65	69	67.9	62.1	28.4	0.011	330	272	319	921
60	64	62.7	56.6	24.6	0.0088	398	305	303	1006
55	59	57.1	51.4	21.4	0.0071	311	206	261	778
50	54	52	46.7	18.7	0.0057	268	228	232	728
45	49	47.5	43.1	16.6	0.0048	185	139	167	491
40	44	43	39.4	14.6	0.004	228	149	207	584
35	39	37.5	35.3	12.5	0.0032	311	228	211	750
30	34	32.2	31.6	10.6	0.0027	217	186	225	628
25	29	27.5	27.8	8.8	0.002	141	113	129	383
20	24	23.4	25	7.5	0.0017	160	85	83	328
15	19	17.8	21.2	5.7	0.0013	86	67	71	224
10	14	12.2	17.2	3.9	0.0009	43	43	41	127
5	9	7.1	14.1	2.6	0.0008	50	17	33	100
0	4	2.5	11.3	1.3	0.0007	29	9	13	51
-5	-1	-0.6	9.3	0.5	0.0006	21	2	0	23
-10	-6	-8	0	0	0	0	0	0	0
-15	-11	-13	0	0	0	0	0	0	0
-20	-16	-18	0	0	0	0	0	0	0
-25	-21	-23	0	0	0	0	0	0	0
-30	-26	-28	0	0	0	0	0	0	0

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Project Name:	London City Schools
Site Name:	High School
Completed by (Name):	Neil
Date completed:	7/26/2012

Motor Rebate Calculation Form

Motor ID, Location, and Operation Data				Old Motor Nameplate Data								New Motor Nameplate Data								Total Motor Incentive[1] $
Unique Motor ID(s)	Number of Identical Units	Motor Location	Annual Hours of Op[2]	Loading (Constant, or if variable, indicate control type)	Load Factor (LF)[3]	Enclosure type: TEFC or ODP	Mfr.	Model Number	Motor HP	Nominal Efficiency	Speed (RPM)	Loading (Constant, or if variable, indicate control type)	Load Factor (LF)[3]	Enclosure type: TEFC or ODP	Mfr.	Model Number	Motor HP	Nominal Efficiency	Speed (RPM)	
AHU-6 &7	2	AHU	2790	constant	0.8	ODP	Baldor	HFM3311T	7.5	88.5	1760	VFD	0.8	ODP	Leeson	C213T17D	7.5	91	1760	$160
AHU-09	1	AHU-09	2790	constant	0.8	ODP	Baldor	HM2535T	30	92.4	1770	vfd	0.8	ODP	Baldor	EM2535T	30	94.1	1770	$199
AHU-10	1	AHU-10	2790	constant	0.8	ODP	Baldor		20	91.7	1760	VFD	0.8	ODP	GE	5KE256AT	20	93	1755	$125
														Incentive (through 10/11/2011)						$484

Motor IDs may be specified by HVAC application type and number. Application types eligible for this incentive include:
 - Chilled Water Pump (CHWP),
 - Heating Hot Water Pump (HHWP),
 - HVAC Fans (HVACF),
 - Cooling Tower Fan (CTF), and
 - Condensing Water Pump (CWP).
If the HVAC application is not listed above, please describe the application on a separate sheet and include it with your application package.

(1) Motor incentives are listed in Table 2 - Incentive levels per motor located on Motor Incentive Table tab

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

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

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Project Name:	London City Schools
Site Name:	High School
Completed by (Name):	Neil
Date completed:	7/26/2012

Variable Frequency Drive Rebate Form

											Total Motor Incentive [1] $
					VFD and Controlled Motor Nameplate DATA						
Motor Application	VFD Manufacturer	VFD Model Number	Unique Motor ID(s)	Motor Location	Enclosure type: TEFC or ODP	Annual Hours of Operation[2]	Load Factor (LF)[3]	Motor Model Number	Motor HP	Motor Nominal Efficiency	
supply fan	yaskawa	E7	AHU-01, AH	supply fan	ODP	2790	0.8	EFM2513T	15(2)	93	**900**
supply fan	yaskawa	E7	AHU-2, AHU	supply fan	ODP	2790	0.8	EFM2515T	20(3)	93	**1,800**
supply fan	yaskawa	E7	AHU-06, AH	supply fan	ODP	2790	0.8	C213T17DB44C	7.5(2)	91	**450**
supply fan	yaskawa	E7	ahu-09	supply fan	ODP	2790	0.8	EM2535T	30	94.1	**900**
								Incentive through 10/11/2011 @ $30/hp			**4,050**

(1) VFD incentives are calculated at a flat rate of $30 per horsepower controlled, up to a maximum of 500 hp controlled per VFD.

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

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

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

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Mercantile Customer Program - Custom Project Rebate Calculator

Project Name and Number:	P-3
Site Name:	London City Schools : HS
Completed by (Name):	Neil
Date completed:	6/27/2012

Energy Conservation Measure	Annual Energy Savings kWh	Eligible Prescriptive Rebate Amount kWh * $0.08
Added Heat Recovery Wheels	52,257	4180.52
Total Project Energy Savings kWh	**52,257**	
Total Custom Prescriptive Rebate Amount $	**$**	**4,180.52**

Notes about this rebate calculation:

Exhibit 1

Project No.	Project Name	Narrative description of your program including, but not limited to, make, model, and year of any installed and replaced equipment:	Description of methodologies, protocols and practices used in measuring and verifying project results	What date would you have replaced your equipment if you had not replaced it early? Also, please explain briefly how you determined this future replacement date.	Please describe the less efficient new equipment that you rejected in favor of the more efficient new equipment.
1	Energy Efficient Lighting System	Energy Efficient Lighting Equipment was installed throughout the facility, ee lights, occ sensors and daylighting sensors	Eligible exit signs and occupancy/daylighting sensors were counted from the plans and input to the Lighting rebate count sheet and then the Lighting Rebate Calculator. Next, LPD data was gathered from the COMcheck included in the plans and input to the Lighting Rebate Calculator.	N/A	ASHRAE minimum design
2	Energy Efficient Ground Source Heat Pumps	A ground source heat pump system provides the heating and cooling for this building. Extremely efficient Climate Master heat pumps were installed throughout the facility.	Data was gathered from the HVAC schedules and heat pump specs. This was used to calculate savings based on how much better these heat pumps were than the minumum qualifying efficiency.	N/A	minimum ashrae efficient heat pumps
3	Energy Efficient Envelope/Construction	The new london MS has a very efficient envelope	A building energy model was completed in Equest to calculate whole building performance. The savings from this model were compared to ashrae baseline to determine kWh savings. This number was adjusted for other EE measures already claimed. This amount was input to the custom rebate calculator to determine the cash rebate amount	N/A	N/A
4	VFDs	Variable Frequency Drives were installed on many pumps and fan motors throughout the facility.	Specification were obtained from the record drawings. This was input to the motors and drives rebate calculator to determine the rebate amount. Savings was calculated based on a 25% energy use reduction attributable to VFDs.	N/A	N/A
6	Nema Premium Motors	Nema premium motors were installed on multiple motors throughout the facility	Motor tags were photographed during facility walkthrough to confirm efficiency. These were input to the motors and drives calculator to determine the cash rebate amount	N/A	minimum efficient motors

Exhibit 2

Customer Legal Entity Name: London City Schools
Site Address: London City Schools Middle School
Principal Address: 270 E Keny Blvd

	Unadjusted Usage, kwh (A)	Weather Adjusted Usage, kwh (B)	Weather Adjusted Usage with Energy Efficiency Addbacks, kwh (c) *Note 1*
2011	1,455,680	1,455,680	1,562,867
Average	**1,455,680**	**1,455,680**	**1,562,867**

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*
1	**Energy Efficient Lighting System**	08/01/2011	$493,170	$246,585	122,278	122,278	-	$7,411	$5,558
2	**Energy Efficient Ground Source Heat Pumps**	08/01/2011	$250,913	$125,457	42,382	42,382	-	$12,250	$9,188
3	**Energy Efficient Envelope/Construction**	08/01/2011	$1,250,000	$625,000	22,929	22,929	-	$1,834	$1,376
4	VFDs	08/01/2011	$30,000	$15,000	63,524	63,524	-	$2,475	$1,856
					-	-	-		
6	**Nema Premium Motors**	08/01/2011	$6,582	$3,291	4,595	4,595	-	$425	$319
					-	-	-		
	Total		**$2,030,665**		**255,708**	**255,708**	**0**	**$24,395**	**$18,296**

Docket No. 13-0077
Site: 270 E Keny Blvd

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

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

**Commitment
Payment
$**

$0

Exhibit 3 Utility Cost Test

UCT = Utility Avoided Costs / Utility Costs

Project	Total Annual Savings, MWh (A)	Utility Avoided Cost $/MWh (B)	Utility Avoided Cost $ (C)	Utility Cost $ (D)	Cash Rebate $ (E)	Administrator Variable Fee $ (F)	Total Utility Cost $ (G)	UCT (H)
1	122	$ 308	$ 37,696	$ 810	$5,558	$1,223	$ 7,591	5.0
2	42	$ 308	$ 13,066	$ 810	$9,188	$424	$ 10,421	1.25
3	23	$ 308	$ 7,069	$ 810	$1,376	$229	$ 2,415	2.93
4	64	$ 308	$ 19,583	$ 810	$1,856	$635	$ 3,301	5.93
6	5	$ 308	$ 1,417	$ 810	$319	$46	$ 1,175	1.21
Total	**256**	**$ 308**	**78,830**	**4,050**	**$18,296**	**$2,557**	**24,903**	**3.2**

Notes
(A) From Exhibit 2, = kWh saved / 1000
(B) This value represents avoided energy costs (wholesale energy prices) from the Department of Energy, Energy Information Administration's 2009 Annual Energy Outlook (AEO) low oil prices case. The AEO represents a national average energy price, so for a better representation of the energy price that Ohio customers would see, a Cinergy Hub equivalent price was derived by applying a ratio based on three years of historic national average and Cinergy Hub prices.This value is consistent with avoided cost assumptions used in EE&PDR Program Portfolio and Initial Benchmark Report, filed Dec 15, 2009 (See Section 8.1, paragraph a).

(C) = (A) * (B)
(D) Represents the utility's costs incurred for self-directed mercantile applications for applications filed and applications in progress. Includes incremental costs of legal fees, fixed administrative expenses, etc.
(E) This is the amount of the cash rebate paid to the customer for this project.
(F) Based on approximate Administrator's variable compensation for purposes of calculating the UCT, actual compensation may be less.
(G) = (D) + (E) + (F)
(H) =(C) / (G)

London City Schools ~ London City Schools Middle School
Docket No. 13-0077

Site: 270 E Keny Blvd

Lighting Form

Lighting Inventory Form

Applicant Name: London City Schools
Facility Name: Middle School
Date:

Instructions: Please use one line for each fixture type in a room or area

For existing or proposed control, choose OCC for Occupancy Sensor, DAYLTG for photosensor, or NONE for none. Controls must save energy to qualify.

The total of Column S, the quantities of CFLs and exit signs in Column M, and the quantities of sensors in Column R, will be used to calculate your incentive on the NonStandard Lighting form.

Line Item	Building Address	Floor	Area Description	Interior or Exterior Fixture	Predominant Space Type	Area Cooling	Pre Fixture Qty	Pre Fixture Code	Pre Watts Fixture (W)	Pre kW Space (kW)	Existing Control	Existing Sensor Quantity	Post Fixture Qty	Post Fixture Code	Post Watts Fixture (W)	Post kW Space (kW)	Proposed Control	Proposed Sensor Quantity	Interior Change in Connected Load (kW) excluding CFLs or Exit Signs	Exterior Change in Connected Load (kW) excluding CFLs or Exit sign	Change in Connected Load (kW) CFL or LED exit sign	Applicant Coincidence Factor	Coincidence Factor	Interactive Factor (demand)	Interactive Factor (energy)	Pre Controls Factor	Post Controls Factor	Interior Demand Savings (kW) excluding CFLs or Exit Signs	Exterior Demand Savings (kW) excluding CFLs or Exit Signs	Demand Savings (kW) CFL or LED Exit Signs	Applicant Equivalent Full Load Hours (EFLH) Estimate	Prescribed Equivalent Full Load Hours	Annual Interior Fixture kWh Saved (excluding CFLs or Exit Signs)	Annual Exterior Fixture kWh Saved (excluding CFLs or Exit Signs)	Annual kWh Saved (CFLs or LED exit signs only)	Annual kWh Saved (Sensors only)	Post Fixture Cut Sheet Number
e.g.	400 North Street	2	Office	Interior	Office - Small	Cooled Space	3	F44ILL	112	0.34	NONE		3	CFT55/1-BX	56	0.17	OCC	3			0.17	84%	84%	34%	12%		30%			0.19	2,808	3,435			646	194	1
e.g.	Example	1	Restaurant	Exterior	Restaurant - Fast Food	Uncooled space	5	Example Cut Sheet 1	50	0.25	OCC	5	5	Example Cut Sheet 2	25	0.13	DAYLTG	5		0.13		88%	88%			30%	50%		0.11		8,760	4,156		206		260	1A
1	270 E. Keny London Ohio	1	School	Interior	Education - Primary School	Cooled Space	1	Cut Sheet 2	90,149	90.15	NONE		1	Cut Sheet 1	79,110	79.11	DAYLTG	227	11.04				57%	34%	12%		50%	8.43				2,080	25,716				92,147
2	270 E. Keny London Ohio	1	School	Interior	Exit Signs	Cooled Space	45	ECFB/1	12	0.54			45	ELED2/1	2	0.09	NONE				0.45	100%	34%	12%					0.60		8,760			4,415	

Lighting Form

Line Item	Building Address	Floor	Area Description	Interior or Exterior Fixture	Predominant Space Type	Area Cooling	Pre Fixture Qty	Pre Fixture Code	Pre Watts / Fixture (W)	Pre kW / Space (kW)	Existing Control	Existing Sensor Quantity	Post Fixture Qty	Post Fixture Code	Post Watts / Fixture (W)	Post kW / Space (kW)	Proposed Control	Proposed Sensor Quantity	Interior Change in Connected Load (kW) excluding CFLs or Exit Signs	Exterior Change in Connected Load (kW) excluding CFLs or Exit Signs	Change in Connected Load (kW) CFL or LED exit sign	Applicant Coincidence Factor (CF) Estimate	Coincidence Factor	Interactive Factor (demand)	Interactive Factor (energy)	Pre Controls Factor	Post Controls Factor	Interior Demand Savings (kW) excluding CFLs or Exit Signs	Exterior Demand Savings (kW) excluding CFLs or Exit Signs	Demand Savings (kW) LED Exit Signs	Applicant Equivalent Full Load Hours Estimate	Prescribed Equivalent Full Load Hours (EFLH)	Annual Interior Fixture kWh Saved (excluding CFLs or Exit Signs)	Annual Exterior Fixture kWh Saved (excluding CFLs or Exit Signs)	Annual kWh Saved (CFL or LED exit signs only)	Annual kWh Saved (Sensors only)	Post Fixture Cut Sheet Number
151											NONE						NONE																					
152											NONE						NONE																					
153											NONE						NONE																					
154											NONE						NONE																					
155											NONE						NONE																					
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Totals							46			90.69				46			79.20			11.04	11.49	0.45			8.43	9.03		0.60						25,716	122,278	4,415	92,147	

Note: If your total change in connected load is greater than or equal to 50 kW the cell above will be red. Please see row 4 on the Instructions tab for information on adjusting the predominant space type to "Other" and estimating CF and EFLH values.

Project Estimated Annual Savings Summary

Estimated Annual kWh Savings	122,278
Total Change in Connected Load	11.49

Annual Estimated Cost Savings	$12,227.80
Annual Operating Hours	5,420

Interior Lighting Incentive @ $0.05/kWh (excluding retrofit CFLs, sensors, or LED exit signs)	$1,285.80
Exterior Lighting Incentive @ $0.05/kWh (excluding retrofit CFLs, sensors, or LED exit signs)	$0.00
Total retrofit CFL Incentive @ $1/screw-in CFL lamp; $15/hard-wired CFL lamp (includes all retrofit CFLs, both interior and exterior)	$0.00
Total retrofit LED Exit Incentive @ $10/exit sign	$450.00
Total Lighting Controls Incentive @ $25/sensor (includes all Lighting Controls, both interior and exterior)	$5,675.00

Total Calculated Incentive	$7,410.80

Total Fixture Quantity excluding retrofit CFLs and LED Exit Sign	1
Total Lamp Quantity for retrofit Screw-In CFLs	0
Total Lamp Quantity for retrofit Hard-Wired CFLs	0
Total Fixture Quantity for retrofit LED Exit Signs	45
Total Quantity for Occupancy Sensors	0
Total Quantity for Daylight Sensors	227

Please briefly describe how you estimated your coincidence factor (CF) and applicant equivalent full-load hours (EFLH) for facility type "Other" indicated on the Lighting Form tab

Demand Savings (For Internal Use Only)	9.03

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Mercantile Customer Program - Custom Project Rebate Calculator

Project Name and Number:	London City Schools P-3
Site Name:	Middle School
Completed by (Name):	Neil Wittberg
Date completed:	7/25/2012

Energy Conservation Measure	Annual Energy Savings kWh	Eligible Prescriptive Rebate Amount kWh * $0.08
Energy Efficient Building Envelope	22,929	1834.32
Total Project Energy Savings kWh	**22,929**	
Total Custom Prescriptive Rebate Amount $	**$**	**1,834.32**

Notes about this rebate calculation:
Total savings were determined from the Equest model performance over baseline. EE measures already claimed were subtracted from these savings in order to determine the kWh savings attributable to the energy efficient envelope.

Orientation and Energy Use Comparison

Baseline			As Built	
Azimuth (degrees)	Energy Use (kWh)		Azimuth (Degrees)	Energy Use (kWh)
0	821,488.00		0	575,589.00
90	825,332.00			
180	822,109.00			
270	825,255.00			
average	823,546.00			

Savings (kWh)   **247,957.00**

Prescriptive Measure Savings

Lighting	122278
Heat Pumps	67310
VFDs	28603
Split System	3452
Motors	3385
total	225028

Net Building Model Savings
22,929.00

London City Schools: MS <mark>Attachment W</mark>
Motor Savings
P-6

Tag	Quantity	Hours Of Operation	Loading	LF	Enclosure	Make	Model	HP	EFF %	RPM	Minimum Code Efficiency	Savings (kWH)	Savings (kW)
AHU-2 , AHU-3, AHU-4R	3	4250	VFD	0.8	ODP	Reliance	5KS213ATI	7.5	91	1765	88	2672.436938	0.628808691
AHU-4	1	4250	VFD	0.8	ODP	Reliance	5KS254ATI	15	93	1765	90	1704.569892	0.401075269
ahu-5 return	1	4250	VFD	0.8	ODP	Reliance	5KS145ATI	2	86.5	1720	84	218.1736857	0.051334985
											Totals	<mark>4595.180516</mark>	1.081218945

London City Schools: MS
VFD Savings
P-4

Motor Application	VFD Make	Model	Tag	Location	Enclosure	Runtime	LF	Model	HP	Quantity	EFF	Savings (kWh)	Savings (KW)
HVAC FAN	YASKAWA	E7	AHU-1	AHU-1	ODP	2790	0.8	5KE254AT	15	1	91	6861.56044	0
HVAC FAN	YASKAWA	E7	AHU-1R	AHU-1	ODP	2790	0.8	5KE213AT	7.5	1	88.5	3527.694915	0
GEOTHERMAL PUMP	Grundfos		P-01	P-01	TEFC	5520	0.8	A91124373	30	1	93	26567.22581	0
GEOTHERMAL PUMP	Grundfos		P-02	P-02	TEFC	5520	0.8	A91124373	30	1	93	26567.22581	0
											Totals	63524	

FirstEnergy Ohio HVAC Supplemental Calculator

HVAC measures purchased and installed for existing equipment replacement or new construction use are eligible for incentives. Incentivized measures include split system air conditioning systems, heat pumps, and chillers with the features specified. All measures are incentivized on an equipment unit basis.

| Applicant Name: | London City Schools |
| Facility Name: | High School |

Rated efficiencies should be determined using certified test conditions described in the 2009 International Energy Conservation Code (which references ASHRAE 90.1 2007 stipulated values) and reported in the units noted below. Your equipment manufacturer or vendor should be able to provide these rated performance results.

| 5-digit Zip Code: | 43140 |
| Region: | Columbus |

Proposed equipment efficiencies must be greater than or equal to the minimum rated efficiencies shown on this form.

Please consider the chiller options carefully, as they depend on air-side technology.

| Date: | 12/3/2012 |

Automated Form Fields: White cells may be used to select from drop down lists or enter project data. Blue cells are auto-populated. Use 1 row for each distinct technology/measure combination. Please submit this electronic .xls file with your application.

Project Details					Electric Cooling Specifications											Electric Heating Specifications						Incentives				
Equipment Replacement or New Construction?	Technology Type	Space/Building Type	Measure Type	Air-side System served by Chiller (when applicable)	Nominal Cooling Capacity of Proposed Equipment (tons)	Rated Cooling Capacity of Proposed Equipment	Exceed This Full Load Rated ARI Cooling Efficiency	Proposed Equipment Full Load ARI Cooling Efficiency	Exceed This Part Load (IPLV) Rated ARI Cooling Efficiency	Proposed Equipment Part Load (IPLV) ARI Cooling Efficiency	Existing Equipment Vintage (4-digit year, if applicable)	Existing Equipment Rated Cooling Capacity (units must match proposed)	Existing Equipment Full Load Cooling Efficiency (if applicable, units must match proposed)	Existing Equipment Part Load (IPLV) Cooling Efficiency (if applicable, units must match proposed)	Rated Heating Capacity of Proposed Equipment	Exceed This Rated Heating Efficiency	Proposed Equipment Heating Efficiency (when applicable)	Existing Equipment Rated Heating Capacity (units must match proposed)	Existing Equipment Heating Efficiency (if applicable, units must match proposed)	# units to be purchased & installed	$ Incentive	Incentive Units	Total Incentive	Cut Sheet Number
New Construction	HeatPumps	Schools	Ground Source Heat Pump, All Capacities		3	29000 BTUH	16.700 EER	18.200	N/A						29000 BTUH	3.400 COP				30	$250.00	each	$9,000.00	London_MS_HeatpumpSpecs.pdf
New Construction	HeatPumps	Schools	Ground Source Heat Pump, All Capacities		5	44000 BTUH	16.700 EER	17.500	N/A						48000 BTUH	3.400 COP	3.9			10	$250.00	each	$2,500.00	London_MS_HeatpumpSpecs.pdf
New Construction	HeatPumps	Schools	Ground Source Heat Pump, All Capacities		2	26000 BTUH	16.700 EER	18.500	N/A						19800 BTUH	3.400 COP				1	$250.00	each	$250.00	London_MS_HeatpumpSpecs.pdf
New Construction	HeatPumps	Schools	Ground Source Heat Pump, All Capacities		4	50000 BTUH	16.700 EER	17.900	N/A						37000 BTUH	3.400 COP				1	$250.00	each	$250.00	London_MS_HeatpumpSpecs.pdf
New Construction	HeatPumps	Schools	Ground Source Heat Pump, All Capacities		10	120000 BTUH	16.700 EER	16.300	N/A						93000 BTUH	3.400 COP	3.9			1	$250.00	each	$250.00	ClimateMasterTGV120.pdf

| | | | | | | | TOTAL $ | $12,250.00 |

Project Estimated Annual Savings Summary

HVAC

Estimated Annual kWh Savings	42,382
Total Demand Savings (kW)	1,906.10

Annual Estimated Cost Savings	$4,238.23

Total Calculated Incentive	$12,250.00

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Project Name:	London City Schools
Site Name:	Middle School
Completed by (Name):	Neil
Date completed:	7/25/2012

Motor Rebate Calculation Form

Motor ID, Location, and Operation Data				Old Motor Nameplate Data								New Motor Nameplate Data								Total Motor Incentive[1] $
Unique Motor ID(s)	Number of Identical Units	Motor Location	Annual Hours of Op[2]	Loading (Constant, or if variable, indicate control type)	Load Factor (LF)[3]	Enclosure type: TEFC or ODP	Mfr.	Model Number	Motor HP	Nominal Efficiency	Speed (RPM)	Loading (Constant, or if variable, indicate control type)	Load Factor (LF)[3]	Enclosure type: TEFC or ODP	Mfr.	Model Number	Motor HP	Nominal Efficiency	Speed (RPM)	
AHU-2 , A	3	supply	2790	constant	0.8	ODP	Reliance		7.5	90	1765	constant	0.8	ODP	Reliance	5KS213AT	7.5	91	1765	$240
AHU-4	1	supply	2790	constant	0.8	ODP	Reliance		15	92	1765	constant	0.8	ODP	Reliance	5KS254AT	15	93	1765	$125
ahu-5 retur	1	ahu-5	2790	constant	0.8	ODP	Reliance		2	85	1720	constant	0.8	ODP	Reliance	5KS145AT	2	86.5	1720	$60
																	Incentive (through 10/11/2011)			$425

Motor IDs may be specified by HVAC application type and number. Application types eligible for this incentive include:
 - Chilled Water Pump (CHWP),
 - Heating Hot Water Pump (HHWP),
 - HVAC Fans (HVACF),
 - Cooling Tower Fan (CTF), and
 - Condensing Water Pump (CWP).
If the HVAC application is not listed above, please describe the application on a separate sheet and include it with your application package.

(1) Motor incentives are listed in Table 2 - Incentive levels per motor located on Motor Incentive Table tab

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

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

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Project Name:	London City Schools
Site Name:	High School
Completed by (Name):	Neil
Date completed:	7/26/2012

Variable Frequency Drive Rebate Form

VFD and Controlled Motor Nameplate DATA											Total Motor Incentive [1] $
Motor Application	VFD Manufacturer	VFD Model Number	Unique Motor ID(s)	Motor Location	Enclosure type: TEFC or ODP	Annual Hours of Operation[2]	Load Factor (LF)[3]	Motor Model Number	Motor HP	Motor Nominal Efficiency	
HVAC FAN	YASKAWA	E7	AHU-1	AHU-1	ODP	2790	0.8	5KE254ATE205F2	15	91	450
HVAC FAN	YASKAWA	E7	AHU-1R	AHU-1	ODP	2790	0.8	5KE213ATE205E2	7.5	88.5	225
GEOTHERMAL P	Grundfos		P-01	P-01	TEFC	5520	0.8	A91124373-P1104!	30	93	900
GEOTHERMAL P	Grundfos		P-02	P-02	TEFC	5520	0.8	A91124373-P1104!	30	93	900
									Incentive through 10/11/2011 @ $30/hp		2,475

(1) VFD incentives are calculated at a flat rate of $30 per horsepower controlled, up to a maximum of 500 hp controlled per VFD.

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

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

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

Mercantile Customer Project Commitment Agreement
Cash Rebate Option

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

WITNESSETH

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

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

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

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

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

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

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

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

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

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

    a. By committing the Customer Energy Project(s) to the Company, Customer acknowledges and agrees that the Company shall control the use of the kWh and/or kW reductions

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resulting from said projects for purposes of complying with the Statute. It is expressly agreed that Customer may use any and all energy related and other attributes created from the Customer Energy Project(s) to the extent permitted by state or federal laws or regulations, provided, and to the extent, that such uses by Customer do not conflict with said compliance by the Company.

b. The Company acknowledges that some of Customer's Energy Projects contemplated in this paragraph may have been performed under certain other federal and/or state programs in which certain parameters are required to be maintained in order to retain preferential financing or other government benefits (individually and collectively, as appropriate, "Benefits"). In the event that the use of any such project by the Company in any way affects such Benefits, and upon written request from the Customer, Company will release said Customer's Energy Project(s) to the extent necessary for Customer to meet the prerequisites for such Benefits. Customer acknowledges that such release (i) may affect Customer's cash rebate discussed in Article 3 below; and (ii) will not affect any of Customer's other requirements or obligations.

c. Any future Customer Energy Project(s) committed by Customer shall be subject to a separate application and, upon approval by the Commission, said projects shall become part of this Agreement.

d. Customer will provide Company or Company's agent(s) with reasonable assistance in the preparation of the Commission's standard joint application for approval of this Agreement ("Joint Application") that will be filed with the Commission, with such Joint Application being consistent with then current Commission requirements.

e. Upon written request and reasonable advance notice, Customer will grant employees or authorized agents of either the Company or the Commission reasonable, pre-arranged access to the Customer Energy Project(s) for purposes of measuring and verifying energy savings and/or peak demand reductions resulting from the Customer Energy Project(s). It is expressly agreed that consultants of either the Company or the Commission are their respective authorized agents.

2. **Joint Application to the Commission.** The Parties will submit the Joint Application using the Commission's standard "Application to Commit Energy Efficiency/Peak Demand Reduction Programs" ("Joint Application") in which they will seek the Commission's approval of (i) this Agreement; (ii) the commitment of the Customer Energy Project(s) for inclusion in the Company Plan; and (iii) the Customer's Cash Rebate.

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

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

3. **Customer Cash Rebate and Annual Report.** Upon Commission approval of the Joint Application, Customer shall provide Company with a W-9 tax form, which shall at a minimum include Customer's tax identification number. Within the greater of 90 days of the Commission's approval of the Joint Application or the completion of the Customer Energy Project, the Company

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will issue to the Customer the Cash Rebate in the amount set forth in the Commission's Finding and Order approving the Joint Application.

    a.   Customer acknowledges: i) that the Company will cap the Cash Rebate at the lesser of 50% of Customer Energy Project(s) costs or $250,000; ii) the maximum rebate that the Customer may receive per year is $500,000 per Taxpayer Identification Number per utility service territory; and iii) if the Customer Energy Project qualifies for a rebate program approved by the Commission and offered by the Company, Customer may still elect to file such project under the Company's mercantile customer self direct program, however the Case Rebate that will be paid shall be discounted by 25%; and

    b.   Customer acknowledges that breaches of this Agreement, include, but are not limited to:

        i.   Customer's failure to comply with the terms and conditions set forth in the Agreement, or its equivalent, within a reasonable period of time after receipt of written notice of such non-compliance;

        ii.   Customer knowingly falsifying any documents provided to the Company or the Commission in connection with this Agreement or the Joint Application.

    c.   In the event of a breach of this Agreement by the Customer, Customer agrees and acknowledges that it will repay to the Company, within 90 days of receipt of written notice of said breach, the full amount of the Cash Rebate paid under this Agreement. This remedy is in addition to any and all other remedies available to the Company by law or equity.

4.   **Termination of Agreement.** This Agreement shall automatically terminate:

    a.   If the Commission fails to approve the Joint Agreement;

    b.   Upon order of the Commission; or

    c.   At the end of the life of the last Customer Energy Project subject to this Agreement.

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

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

    a.   Notwithstanding the above, a Party may disclose to its employees, directors, attorneys, consultants and agents all documents and information furnished by the other Party in connection with this Agreement, provided that such employees, directors, attorneys, consultants and agents have been advised of the confidential nature of this information and through such disclosure are deemed to be bound by the terms set forth herein.

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b. A Party receiving such Confidential Information shall protect it with the same standard of care as its own confidential or proprietary information.

c. A Party receiving notice or otherwise concluding that Confidential Information furnished by the other Party in connection with this Agreement is being sought under any provision of law, to the extent it is permitted to do so under any applicable law, shall endeavor to: (i) promptly notify the other Party; and (ii) use reasonable efforts in cooperation with the other Party to seek confidential treatment of such Confidential Information, including without limitation, the filing of such information under a valid protective order.

d. By executing this Agreement, Customer hereby acknowledges and agrees that Company may disclose to the Commission or its Staff any and all Customer information, including Confidential Information, related to a Customer Energy Project, provided that Company uses reasonable efforts to seek confidential treatment of the same.

6. **Taxes.** Customer shall be responsible for all tax consequences (if any) arising from the payment of the Cash Rebate.

7. **Notices.** Unless otherwise stated herein, all notices, demands or requests required or permitted under this Agreement must be in writing and must be delivered or sent by overnight express mail, courier service, electronic mail or facsimile transmission addressed as follows:

If to the Company:	**If to the Customer:**
FirstEnergy Service Company	London City Schools
76 South Main Street	380 Elm St.
Akron, OH 44308	London, Ohio 43140____
Attn: Victoria Nofziger	_Attn: Kristine Blind
Telephone: 330-384-4684	_740.852.570₿
Fax: 330-761-4281	
Email: vmnofziger@firstenergycorp.com	

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

8. **Authority to Act.** The Parties represent and warrant that they are represented by counsel in connection with this Agreement, have been fully advised in connection with the execution thereof, have taken all legal and corporate steps necessary to enter into this Agreement, and that the undersigned has the authority to enter into this Agreement, to bind the Parties to all provisions herein and to take the actions required to be performed in fulfillment of the undertakings contained herein.

9. **Non-Waiver.** The delay or failure of either party to assert or enforce in any instance strict performance of any of the terms of this Agreement or to exercise any rights hereunder conferred, shall not be construed as a waiver or relinquishment to any extent of its rights to assert or rely upon such terms or rights at any later time or on any future occasion.

10. **Entire Agreement.** This Agreement, along with related exhibits, and the Company's Rider DSE, or its equivalent, as amended from time to time by the Commission, contains the Parties' entire understanding with respect to the matters addressed herein and there are no verbal or collateral representations, undertakings, or agreements not expressly set forth herein. No change in, addition to, or waiver of the terms of this Agreement shall be binding upon any of the Parties unless the same is set forth in writing and signed by an authorized representative of each of the Parties. In

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the event of any conflict between Rider DSE or its equivalent and this document, the latter shall prevail.

11. **Assignment.** Customer may not assign any of its rights or obligations under this Agreement without obtaining the prior written consent of the Company, which consent will not be unreasonably withheld. No assignment of this Agreement will relieve the assigning Party of any of its obligations under this Agreement until such obligations have been assumed by the assignee and all necessary consents have been obtained.

12. **Severability.** If any portion of this Agreement is held invalid, the Parties agree that such invalidity shall not affect the validity of the remaining portions of this Agreement, and the Parties further agree to substitute for the invalid portion a valid provision that most closely approximates the economic effect and intent of the invalid provision.

13. **Governing Law.** This Agreement shall be governed by the laws and regulations of the State of Ohio, without regard to its conflict of law provisions.

14. **Execution and Counterparts.** This Agreement may be executed in multiple counterparts, which taken together shall constitute an original without the necessity of all parties signing the same page or the same documents, and may be executed by signatures to electronically or telephonically transmitted counterparts in lieu of original printed or photocopied documents. Signatures transmitted by facsimile shall be considered original signatures.

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

London City Schools
(Customer)

By: _Kristine Blind_

Title: _Treasurer_

Date: _8/1/2012_

Ohio Edison
(Company)

By: _John C. Durgin_

Title: VP, Energy Efficiency

Date: _12-19-12_

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This foregoing document was electronically filed with the Public Utilities

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in

Case No(s). 13-0077-EL-EEC

Summary: Application to Commit Energy Efficiency/Peak Demand Reduction Programs of Ohio Edison Company and London City Schools electronically filed by Ms. Jennifer M. Sybyl on behalf of Ohio Edison Company and London City Schools