

Commercial and Industrial Energy Efficiency Programs







Linda Rasor, CEM & CEP

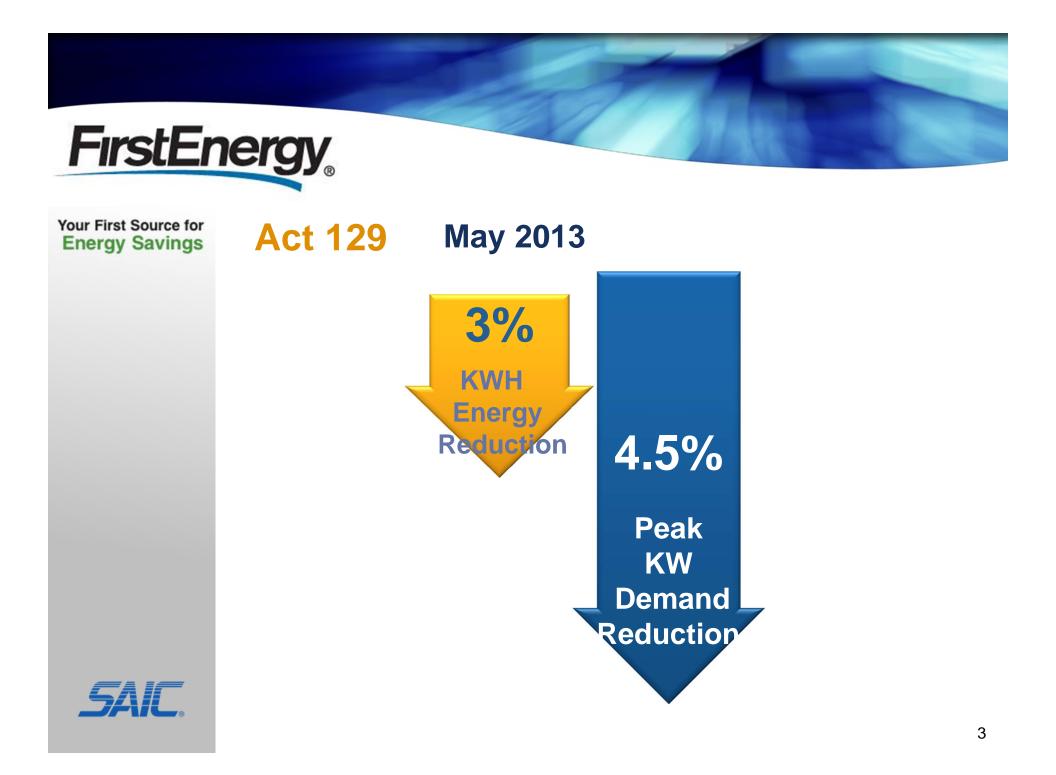




FirstEnergy's Operating Companies









Eligible Entities

- Commercial
- Industrial
- Retail
- Health Care
- Non profits
- Federal

- Local Government and School Districts K-12
 - Municipalities
 - Counties





General Requirements

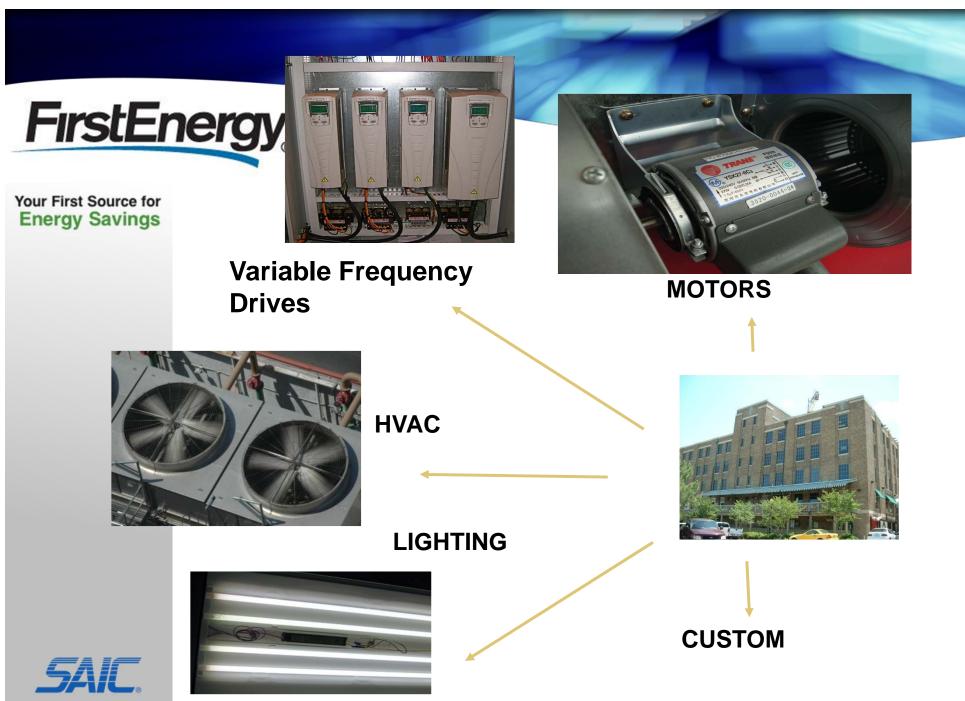
- Equipment Must Have Been Purchased AFTER October 28, 2009
- Incentives Paid on Equipment Purchases Only; Labor Excluded
- Incentives Cannot Exceed Equipment Cost



Sample Building with multiple opportunities -NO CAP LIMITATIONS FIRSTEnergy





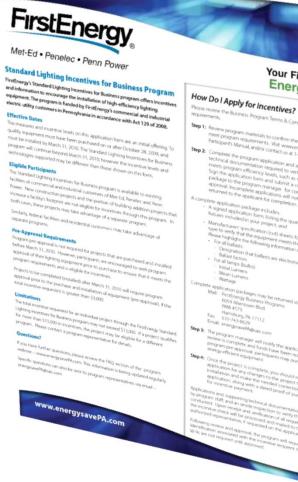






The Forms

- Available at www.energysavePA.com
- Full Requirements, **Guidelines & Step-By-Step Instructions** Included
- Simply Complete, Sign & Send





Please review the Business Program Terms & Conditions and applicated Review program materials to confirm th

- Program requirements. Visit we meet program implicit rents, while immentation Participant's Manual, and/or contact us at 1-866-554-7 plete the program application umentation ter
- documentation required to ve rogram efficiency levels, such a rapplication form and submit a package to the program manager. Is applicant for a
- gned application form, listing t
- idualed in your project, and Profication (cut) sheet
- Tistion





Application Package







Submit Preapproval Documentation

- Before Purchasing Equipment
- Application Form & Cut Sheets •W-9

Documentation Review

Preapproval Letter Issued

Purchase & Install Eligible Equipment

- •Submit Final Documentation "As-Built" Application
- Invoices/Proofs of Purchase
- •W-9 Form

Documentation Review

Final Approval Issued



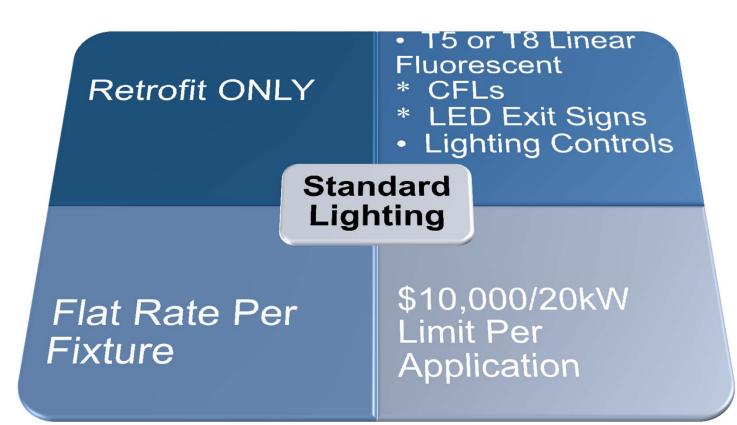


Standard Vs. Non-Standard Programs

	Standard	Non-Standard
Programs	Std. Lighting, Motors and Drives, HVAC, Federal, Street lighting	Non-Standard Lighting, Custom, Federal
Application Detail	Simple	More Detailed
Qualifying Equipment	Pre-Defined	Flexible
Incentive Potential	Based on Averages	Specific
Calculation Requirements	None	Energy Savings Calculations
Hours of Use	Average	Extended
Project Type	Smaller/Simpler Larger/More C	
Preapproval (After 3/31)	Required Over \$3,000	Required











Standard Lighting Form, Page 1

	EQUIPMENT & ELIGIBILITY REQUIREMENTS													
	Equipment Requirements	Program Incentive Code	Total Fixture Qty Per Line	Total Lamp Qty per Line	Total Ballast Qty Per Line	Fixture Type and Lamp Length	Incentive Amount (\$)	Incentive Unit	Total Incentive					
	For High Bay Fixtures (15 feet and higher) the required Ballast Factor for T8 is 1.14 or	LFL1A				T8 High Bay, 4' 3 to 4 lamps	20.00	Per Fixture						
	greater. Both lamps and ballast must be replaced to qualify.	LFL1B				T8 High Bay, 8' 4 lamps	54.00	Per Fixture						
7	Electronic Ballast is required.	LFL1C	60	360	60	T8 High Bay, 4' More than 4 lamps	100.00	Per Fixture	6,000					
	For High Bay Eixtures				-									
	For High Bay Fixtures (15 feet and higher) the required Ballast Factor for T5 is 1.0 or greater.					T5 High Bay 3 to 4 lamps	75.00	Per Fixture						
t	Both lamps and ballast must be replaced to qualify. Electronic Ballast is	LFL1E				T5 High Bay more than 4 lamps	120.00	Per Fixture						
en	required.													
Fluorescent	Both lamps and ballast must be replaced to qualify.	LFL2A				High Efficiency/Low Bay T5 2 to 4 lamps	75.00	Per Fixture	6,000					



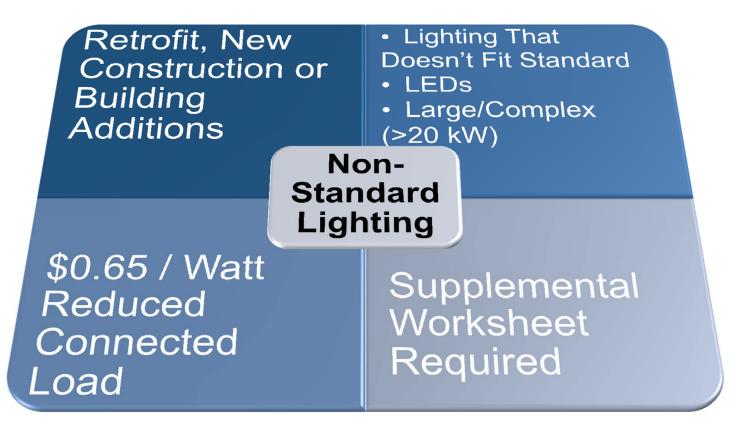


Standard Lighting Form, Page 2

	Equipment Requirements	Program Incentive Code	Total Fixture Qty Per Line	Total Lamp Qty per Line	Total Ballast Qty Per Line	Fixture Type and Lamp Length	Incentive Amount (\$)	Incentive Unit	Total Incentive
Fixtures	Both lamps and ballast must be replaced to qualify.	RLRB1A	100	200	100	Relamp & Reballast to Super T8 1 to 2 lamps	11.00	Per Fixture	1,100
Retrofit Existing Fixt	For Super T8s, minimum 3100 initial lumens and ballast factor of 0.78 <u>or less</u> is required.	RLRB1B				Relamp & Reballast to Super T8 3 to 4 lamps	27.00	Per Fixture	
l m l			_					_	
ofit	Both lamps and ballast must be	RLRB2A				25 W Reduced Wattage T8 1 to 2 Lamp	11.00	Per Fixture	
Retr	replaced to qualify.	RLRB2B				25 W Reduced Wattage T8 3 to 4 Lamp	28.00	Per Fixture	
-	4-foot lamp length,								
	25- or 28-watt T8 reduced wattage	RLRB3A				28 W Reduced Wattage T8 1 to 2 Lamp	11.00	Per Fixture	
	lamps with a minimum efficacy of 90 lumens per watt	RLRB3B				28 W Reduced Wattage T8 3 to 4 Lamp	28.00	Per Fixture	
			100			Total Equi	pment Ince	entive B:	3.500
Compact Fluorescent	Equipment Requirements	Program Incentive Code	Total Fixture Qty Per Line	Total Lamp Qty per Line	Total Ballast Qty Per Line	Fixture Type	Incentive Amount (\$)	Incentive Unit	3,500 Incentive
Com	Minimum lamp	CFL1				Screw In Compact Fluorescent	1.00	Per Lamp	10,600
Ē	wattage ≥ 5 W.	5 W. CFL2 Hard Wired Compact Fluorescent			15.00	Per Lamp			
						Total Equi	pment Inco	entive C:	











Non-Standard Lighting Calculator

Applicant Name:	ABC Company, Inc.	Instruction: Please use
Facility Name:	Warehouse	For Propo
Date:	6/20/10	The total c

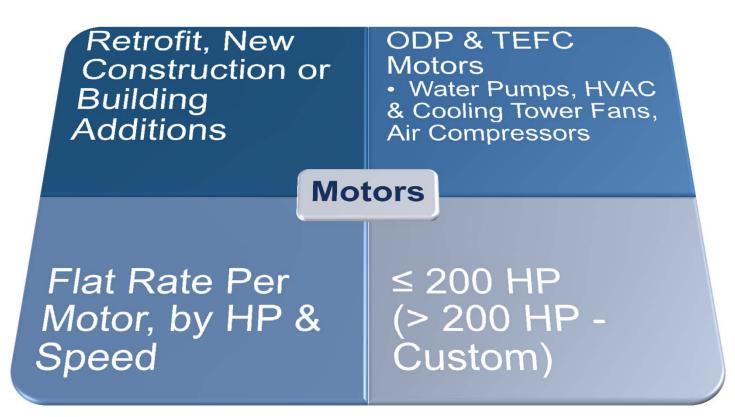
Line Item	Building Address	Floor	Area Description	Predominant Space Type	Area Cooling	Pre Fixture Qty	Pre Fixto Code
e.g.	400 North Street	2	Office	Office - Small	Cooled Space	3	F44ILL
e.g.	Example	1	Restaurant	Restaurant - Fast Food	Cooled Space	5	Cut Shee
B 1 (134 North St. 6	2	CONTRACE Light	Swi Olifice3 - Sm<mark>E42</mark> 0.1.	Coo2;858ace	8667	
2							
J otals	0.16		0.34	3 0.14	0.1	8667	



Instructions / Fixture Code Legend /

Wattage Table Lighting Form









Motor Inventory Form

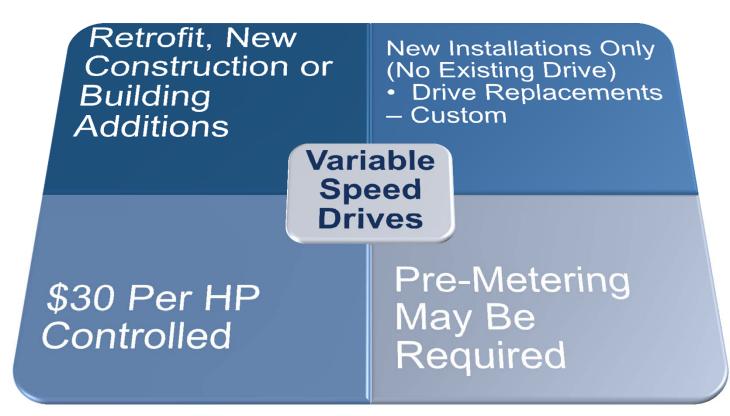
Adapted	from Appe	ndix D of th	ne PA TRM	Warehouse Motors Upgrade ABC Co. Warehouse Joe Surveyor Bill Spot 6/30/2010					Project Name: Site Name: Survey Completed by (name): Spot Measurements Complete Date(s) Survey completed:				
Motor ID	, Location,	and Operat	tion Data	Existing Motor Nameplate						Data			
Unique Motor I.D.(s)	Number of Identical Units	Motor Location	Annual Hours of Operation ²	Loading (Constant/ Variable)	Load Factor (LF) ³	Enclosure Type: TEFC or ODP	Mfgr	Model Number	Motor HP	Nominal Efficiency	Speed (RPM)		
CWP 1&2	2	Mech Rm 1	3,800	Constant	0.75	ODP	Acme	12345	50	93.0%	1,800		
CTF1	Cons	t erretc 10 27	5 CTĐĐI	Con étan	• 007051 0	3 OD B	Ac 90 .	00011020	03	54 .0%	1,200		

	Table 2 – Incentive Levels Per Motor												
	Open Drip	Proof (ODP))								
		# of Poles			# of Pol	es							
Size HP	HP 6 4 2	2	Size	6	4	2							
JAZETTI	Speed (R	PM		HP	Speed (RPM								
	1200	1800	3600		1200	1800	3600						
1	\$20	\$20	\$20	1	\$20	\$20	\$20						
1.5	\$30	\$30	\$30	1.5	\$30	\$30	\$30						
2	\$54	\$54	\$54	2	\$54	\$54	\$54						
3	\$54	\$54	\$54	3	\$54	\$54	\$54						



19







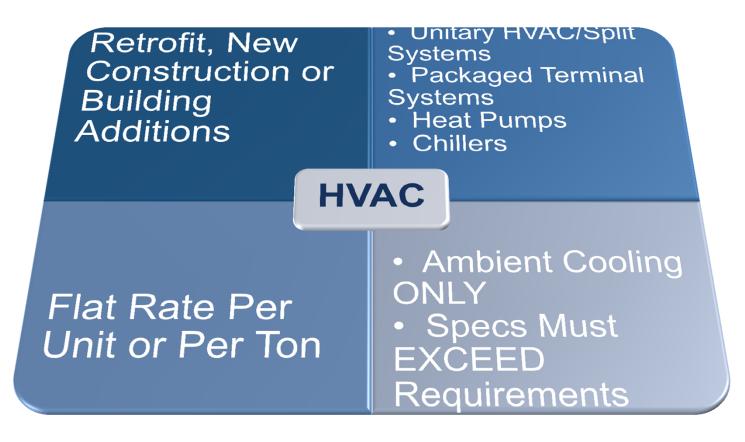


Drive Inventory Form

				VFD and C	ontrolled Motor Nan	neplate Data	
Motor Application	VSD Manufacturer	VSD Model Number	Unique Motor I.D.(s)	Motor Location	Enclosure Type: TEFC or ODP	Annual Hours of Operation ²	
OOPF 1	3, 350 me	0 .55 789	001 63	Moech 2	90.0%	930630	











HVAC Supplemental Worksheets Existing Equipment:

Equipment Types	Manufactu	rer/Model #	Unit Location		# units	Efficiency Rating		
				tons)		Value	Unit	
Unitary/Split A/C Systems								
<65,000 BTU/hr, <5.4 tons	Acme	98765	Mech 2	5 Ton	3	9.4	SEER	
≥65K to 135K BTU/hr, ≥5.4 to 11.25 tons								
>135Kto <240K BTU/hr, >11.25 to <20 tons								
≥240K to 760K BTU/hr, ≥20 to 63.3 tons								
DX A/C Systems								
>30 tons to 63 tons								
>63 tons								

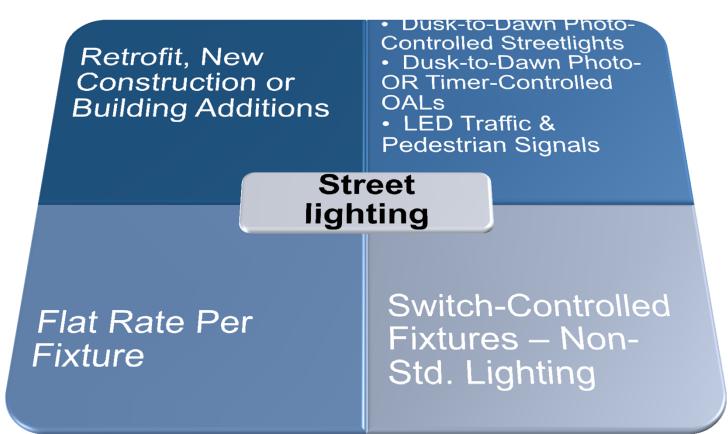
Proposed Equipment:

Equipment Types	Incentive (\$)	Incentive basis	Manufacturer/Model #		Unit Location	Unit Size (BTUH or Tons)	(BTUH or # units		cy Rating Unit	Total Incentives (\$)
Unitary/Split A/C Systems										
<65,000 BTU/hr, <5.4 tons	\$150	per unit	Acme	98765	Mech 2	5 Ton	3	13.4	SEER	\$450
≥65K to 135K BTU/hr, ≥5.4 to 11.25 tons	\$250	per unit							EER	
>135Kto <240K BTU/hr, >11.25 to <20 tons	\$300	per unit							EER	
≥240K to 760K BTU/hr, ≥20 to 63.3 tons	\$350	per unit							EER	
DX A/C Systems							•			
>30 tons to 63 tons	\$350	per unit							EER	
>63 tons	\$350	per unit							EER	



Instructions / Proposed Equipment / Existing Equipment









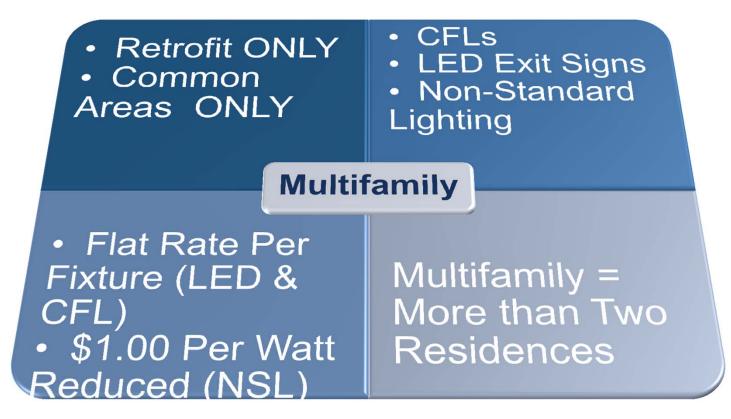
Street lighting Form

Only	fixtures controlled by a dusk-to-	-dawn nhotocell senso	r are eligible		Appl	icant Name:	ABC Co	mpany				
0,		autor protocer senso	are engineer		Date	:	5/27/201	0				
	STREETLIGHTING INVEN	NTORY		EXISTING				PRO	OPOSED			
Line Item	Approximate Address	Area Description	Pre Fixture Quantity	Existing Fixture Type	Existing Watts/ Fixture	Total kW for Line Item	Post Fixture Quantity	Proposed Fixture Type	Proposed Watts/ Fixture	Total kW for Line Item	Incentive per Fixture	Total Incentive \$
1	120 Baker St, Erie	Roadside	17	MV100/1	125	2.13	17	HPS70/1	95	1.62	\$140	\$2,380
2				MV175/1	205			HPS150/1	188		\$140	
3				MV175/1	205			HPS100/1	138		\$200	
4				MV250/1	290			HPS150/1	188		\$300	
5				MV400/1	455			HPS250/1	295		\$350	
6				MV400/1	455			HPS200/1	250		\$400	
7	120 Baker St, Erie	Roadside	9	MV700/1	780	7.02	9	HPS400/1	465	4.19	\$450	\$4,050
8				MV700/1	780			HP\$250/1	295		\$500	
9				MV700/1	780			HPS200/1	250		\$550	
10				MV1000/1	1075			HPS400/1	465		\$800	
Totals						•		Total Incentive:				\$6,430

	OAL INVENTORY	(EXISTING				PROPOSED					
Line Item	Approximate Address	Area Description	Pre Fixture Quantity	Existing Fixture Type	Existing Watts/ Fixture	Total kW for Line Item	Post Fixture Quantity	Proposed Fixture Type	Proposed Watts/ Fixture	Total kW for Line Item	Incentive per Fixture	Total Incentive \$
1				MV175/1 205				HPS100/1	138		\$65	
2				1-lamp Mercury vapor between LED or Induction 175W and 400 W technologies				\$100				
Totals										Tota	Incentive:	











Multifamily Form

Total incentive
ntive A:
Total Incertive
er

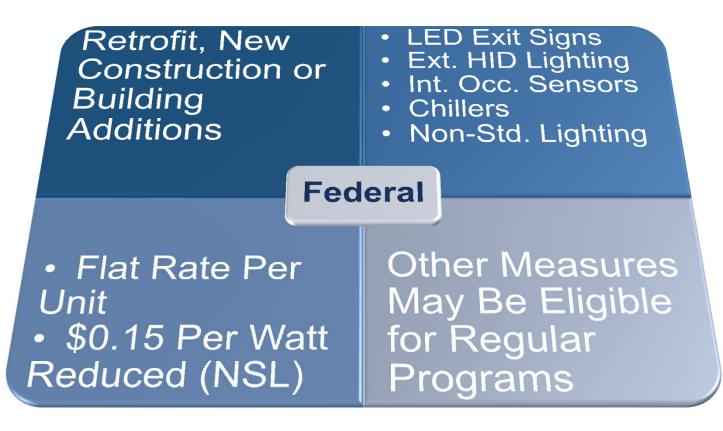
Please use the Non-Standard Lighting Calculator spreadsheet to determine estimated annual energy savings. This spreadsheet can be found on the program website at <u>www.energysavepa.com</u> and must be submitted electronically in Excel (xls) format with your application form.

spreadsheet) Annual Estimated Cost Savings Annual Estimated Cost Savings Annual Operating Hours Incentive @ \$1.00/W Multiply the sum of the values in column Q by 1,000 to convert to watts, then by \$1.00/W to determine the total incentive.	MULTIFAMILY COMMON AREA	S – PROJECT ESTIMATED ANNUAL SAVINGS SUMMARY
Total Change in Connected Load (column Q of the Non-Std Lighting Calculator spreadsheet) Annual Estimated Cost Savings Annual Operating Hours Incentive @ \$1.00/W Multiply the sum of the values in column Q by 1,000 to convert to watts, then by \$1.00/W to determine the total incentive. Total Incentive = Sum of values in column Q x 1.000 W/kW x \$1.00/W)	This is the sum of the Annual kWh Saved in column X of the Non-Standard Lighting	
Annual Operating Hours Incentive @ \$1.00/W Multiply the sum of the values in column Q by 1,000 to convert to watts, then by \$1.00/W to determine the total incentive.		
Incentive @ \$1.00/W Multiply the sum of the values in column Q by 1,000 to convert to watts, then by \$1.00/W to determine the total incentive.	Annual Estimated Cost Savings	
Multiply the sum of the values in column Q by 1,000 to convert to watts, then by \$1.00/W to determine the total incentive.	Annual Operating Hours	
	Multiply the sum of the values in column Q by 1,000 to convert to watts, then by	



Total Incentive A +B:









Federal Form

Applicant Name:	US Postal Service
Date:	5/20/2010

Standard Federal Equipment Form

Standard Federal Equipment	Equipment Requirements	Incentive Amount (\$)	Incentive Unit	Total Incentive (\$)
Occupancy Sensors controlling less than 500 W of interior lighting	May not have a manual override "ON" switch that would prevent controls from turning the fixtures off.	\$2	per sensor	\$300
LED Exit Sign(Retrofit Only)	Signs may be one or two-sided.and must replace an existing incandescent or fluorescent exit sign.	\$2	per fixture	\$226
			Total Incentive A:	\$526

Chillers Form

Chillers	Equipment Requirements	Incentive Amount (\$)	Incentive Unit	Total Incentive (\$)
Water Cooled Centrifugal Chiller <150 tons	Minimum 0.56 kW/ton, 0.53 IPLV	\$50	per unit	\$650
Water Cooled Centrifugal Chiller 150 tons – 300 tons	Minimum 0.57 kW/ton, 0.46 IPLV	\$50	per unit	\$300
			Total Incentive B:	\$950



Total Incentive A + B:	\$1,476
I Utal III CEIILIVE A T Di	V1,470









Specialty Equipment Form

	E	QUIPMENT & ELIGIB	ILITY REQUIREMEN	TS			
Refrigeration Measures							
Measure	Supermarket, Convenience Store, Restaurant or Other (Please Specify)	Estimated Area of Strip Curtain Replaced (ft ²)	Location of Unit (i.e. NW corner of building)	Total Number of Entrances to Unit(s) (A)	Incentive Amount (\$) (B)	Incentive Unit	Total Incentive (AxB)
Strip Curtain for Walk-in Freezer					\$50.00	Per Freezer Entrance	
Strip Curtain for Walk-in Cooler					\$50.00	Per Cooler Entrance	
					Ir	ncentive A:	

ENERGY STAR Commercial Solid Door F	Refrigerators and Freezers						
Measure	Requirements	Unit Size (ft³)	Unit Make/Model Number	Quantity (A)	Incentive Amount (\$) (B)	Incentive Unit	Total Incentive (AxB)
ENERGY STAR Commercial Solid Door Refrigerators - Less than 15 ft ³					\$50.00	Per Refrigerator	
ENERGY STAR Commercial Solid Door Refrigerators - 15 to less than 30 ft ³					\$50.00	Per Refrigerator	
ENERGY STAR Commercial Solid Door Refrigerators –30 to less than 50 ft ³	All commercial refrigerators and freezers must be ENERGY STAR				\$50.00	Per Refrigerator	
ENERGY STAR Commercial Solid Door Refrigerators - Over 50 ft ³	rated to qualify for these incentives				\$50.00	Per Refrigerator	
ENERGY STAR Commercial Solid Door Freezers – Less than 15 ft ³	Only commercial food service				\$50.00	Per Freezer	
ENERGY STAR Commercial Solid Door Freezers - 15 to less than30 ft ³	applications are eligible (i.e. restaurants, cafeterias)				\$50.00	Per Freezer	
ENERGY STAR Commercial Solid Door Freezers – 30 to less than 50 ft ³					\$50.00	Per Freezer	
ENERGY STAR Commercial Solid Door Freezers - Over 50 ft ³					\$50.00	Per Freezer	
					Total II	ncentive B:	







Projects that Don't Fit Other Programs

- Industrial Process Renovations
- Motors >200 hp
- VSD Replacements
- Economizers
- Building Control Systems

Custom

\$0.10 Per kWh Saved

Exceptions:

- Power Factor Correction
- Motor Soft Starts
- Electric Generation, Incl.
 Renewable Energy
- Fuel Switching

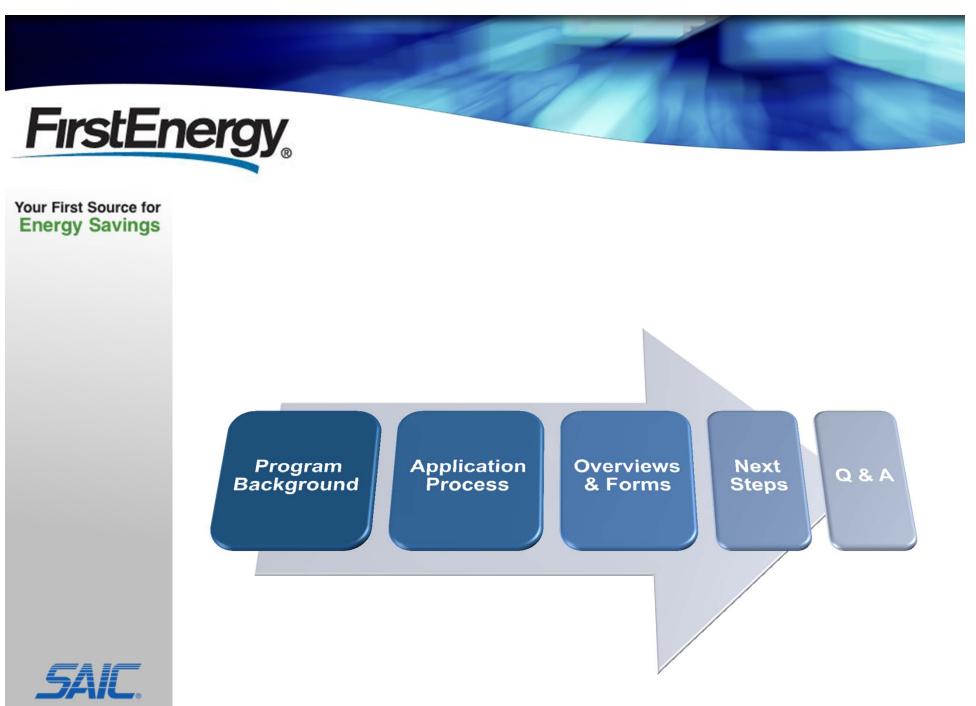




Custom Form

Project TRC Test Score	
From the TRC Calculator Tool on the program website	
Estimated Annual kWh Savings	
Summer Peak Demand Reduction (kW) *	
Annual Estimated Cost Savings	
Annual Operating Hours	
Incentive = \$0.10/kWh	
	ling relevant engineering assumptions and e size, operation, and efficiency levels of proposed equipment, as needed.
any manufacturers' specification (cut) sheets to verify th ou may also attach additional spreadsheets or output rej	e size, operation, and efficiency levels of proposed equipment, as needed. ports from other analysis tools used to assess the project.
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any manufacturers' specification (cut) sheets to verify th ou may also attach additional spreadsheets or output rep A thin the documentation, please clearly indicate the loca Executive summary, Calculations of annual baseline energy use (pre-installati Calculations of annual proposed energy use (post-installat	e size, operation, and efficiency levels of proposed equipment, as needed. ports from other analysis tools used to assess the project. ation of the following key information: on),
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any manufacturers' specification (cut) sheets to verify th ou may also attach additional spreadsheets or output rep Athin the documentation, please clearly indicate the loca Executive summary, Calculations of annual baseline energy use (pre-installati Calculations of annual proposed energy use (post-installati Energy savings in kWh/year, Peak demand reductions in kW, and Equipment manufacturer specification (cut) sheets for pu Note: 1) Summer peak demand savings must be realized durin	e size, operation, and efficiency levels of proposed equipment, as needed. ports from other analysis tools used to assess the project. ation of the following key information: on), ation), roposed equipment. g the peak demand period, as defined by the TRM:
any manufacturers' specification (cut) sheets to verify th ou may also attach additional spreadsheets or output rep Athin the documentation, please clearly indicate the loca Executive summary, Calculations of annual baseline energy use (pre-installati Calculations of annual proposed energy use (post-installati Calculations of annual proposed energy use (post-installati Energy savings in kWh/year, Peak demand reductions in kW, and Equipment manufacturer specification (cut) sheets for pu Note: 1) Summer peak demand savings must be realized durin - Between the hours of 12:00 noon and 8:00	e size, operation, and efficiency levels of proposed equipment, as needed. ports from other analysis tools used to assess the project. ation of the following key information: on), ation), roposed equipment. g the peak demand period, as defined by the TRM: pm,
any manufacturers' specification (cut) sheets to verify th ou may also attach additional spreadsheets or output rep Athin the documentation, please clearly indicate the loca Executive summary, Calculations of annual baseline energy use (pre-installati Calculations of annual proposed energy use (post-installati Energy savings in kWh/year, Peak demand reductions in kW, and Equipment manufacturer specification (cut) sheets for pu Note: 1) Summer peak demand savings must be realized durin	e size, operation, and efficiency levels of proposed equipment, as needed. ports from other analysis tools used to assess the project. ation of the following key information: on), ation), roposed equipment. g the peak demand period, as defined by the TRM: pm, s),







5AIC

energysavePA.com

Check out the new content below! Streetlighting, Multifamily and Specialty Equipment programs and

FirstEnergy

Met-Ed • Penelec • Penn Power



Programs

HVAC

HVAC Supplemental Spreadsheets Streetlighting, Outdoor Area Lighting,

Traffic Signals

for Common Areas

NEW! Specialty Equipment

NEW! Custom Program

Custom Project TRC Calculator Tool

Federal Government Program

Request for Audit Auditors and Technical

Contractors

Audit RFQ

Audit RFQ Appendix A

NEW! Program Ally List

Ally Signup Form

FirstEnergy Commercial and Industrial Energy Efficiency Programs

Welcome to the business and government programs Web site!

SAIC.

SAIC is the designated program delivery contractor for FirstEnergy's energy efficiency and demand reduction programs for commercial, industrial and governmental retail customers in Pennsylvania. This Web site is maintained by SAIC.

FirstEnergy's energy efficiency programs for businesses and governments offer incentives toward the purchase of high efficiency equipment and other energysaving measures for commercial, industrial, governmental (local, state and federal), institutional and non-profit retail customers of Met-Ed, Penelec and Penn Power.

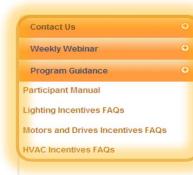
These programs are designed to offset a portion of the incremental cost associated with high-efficiency equipment. Incentives will be provided to customers who install qualifying equipment, helping to meet the goals established in Pennsylvania Act 129 of 2008.

Incentives are available for qualifying equipment and measures purchased and installed on or after October 28, 2009.

These programs support a set of standard energy efficiency measures, with "per unit installed" rebates or customer-specific non-standard ("custom") measures based on the annual energy savings.



Your First Source for Energy Savings





What Next?

1. Go To <u>www.energysavePA.com</u> For Program Details

- Application Forms, Instructions, FAQs, Requirements, Updated Schedules
- Email energysavePA@SAIC.com with Questions
 - Prospective Program Allies: Send Your Contact Information

2. <u>APPLY!</u>

 Contact Us to Arrange a Presentation for Your Employees, Clients, Associations & Others





Thank You

