



PECO Smart Ideas for Your Business

June 2013 - May 2016 Programs

Switch on the Energy Savings-A Hands-On Workshop on Indoor Lighting

11/19/2013

SAVE ENERGY AND MONEY









PA Act 129, new phase

- New three-year program cycle
 - June 1, 2013 to May 31, 2016
- PECO energy savings target is 2.9% or 1,125 GWh
 - 10% of Plan savings must come from Government, Institutional and Non Profit business customers (existing requirement)
 - 4.5% of Plan savings from Low Income (new requirement)
- No demand reduction requirements in new program cycle
 - PA State Wide Evaluator analyzing cost effectiveness for possible program inclusion







New, Major Changes

- Incentive levels now higher for GNI customers, ~20%
- Lighting paid on a per watt reduced basis
- Chillers, LEDs, motors are custom measures
- Pre-approval applications must be submitted before project begins
- Retroactive projects are not eligible
- Pre-inspections may be required before application is approved and funds reserved
- Final project applications must be submitted no later than 90 days after project completion







Program Eligibility

- PECO commercially metered distribution customer
- Facility improvement must result in reduction in kWh usage and/or permanent load reduction
- All installed equipment must meet or exceed the specifications given in the corresponding program application
 - Code baseline is ASHRAE 90.1 2007
- Customers must submit a preapproval application before the project is started
- Retroactive projects are excluded





General Qualification Terms for Incentives

- Program is available until May 31, 2016.
 - First program cycle: June 1, 2013 through May 31, 2014
- Project must be completed, and final application received by May 15th to qualify for incentives in that program year
- Paperwork for prescriptive and custom projects must be submitted within 90 days of project completion
 - Whole building projects have up to 6 months
 - On-Site projects must provide performance data for the first 12 months after project is commercially operable







Commercial Program Exclusions

- Renewable energy sources
- Spaces where end-use is residentially metered
- Non-electric energy savings
- Electric base cases for thermal projects







Project Application Process

- Verify eligibility
 - Non-residential electric PECO customer
 - Equipment meets or exceeds specifications in program application
- Submit a preapproval application for all projects
- Install equipment or perform project work
- Submit final application when project is complete
 - Measures are installed and operational
 - New construction: certificate of occupancy has been issued
 - All areas are built out for occupancy
- Documentation listed on Final Application Checklist
 - Invoices, spec sheets, W-9, TRM worksheets, signed agreement
 - New construction: Lighting ComCheck, mechanical and electrical plans, floor plans







Prescriptive Measures

Menu-based with predetermined savings and incentive levels

- Lighting
 - Indoor, outdoor, garage, traffic signals, and lighting controls
 - Incentives per watt reduced or per unit
- HVAC
 - Air conditioners, heat pumps
 - HVAC incentives per ton cooling
 - Energy management systems
 - EMS incentives per square foot
- Refrigeration and Food Service
 - Commercial refrigeration, freezers, strip curtains, beverage/snack machine controls - incentives per unit
- Variable Speed/Frequency Drives
 - Controlling HVAC fans, pumps, process loads, compressors incentives per HP
 - Kitchen exhaust fan incentives per unit







Custom Measures

Non-prescriptive measures that require demonstration of energy savings

- Eligibility determined on a case-by-case basis
- Examples of custom measures include:
 - LED tubes DLC approved
 - Chillers
 - High efficiency transformers
 - PC power management, smart plugs, plug load management
 - Building envelope white/green roof, windows, air sealing, weather-stripping
 - Process cooling mushroom farming, manufacturing,
 - Data center upgrades cooling, server upgrades
 - Process upgrades- HEPA filtration, aeration, new equipment
 - VSD/VFD not required by code for new construction or major rehab
 - New Construction exterior lighting
 - Compressed air
 - ENERGY STAR office equipment
 - Warehouses automatic door closers









Indoor Lighting Example 1 (with Labor):

Existing				Proposed				Est. Renovation Cost				
Fixture Type	Qty	PA TRM Watts / Fixture	PA TRM Wattage	Fixture Type	Qty	PA TRM Watts / Fixture	PA TRM Wattage	Unit Material Cost	Unit Labor Cost	Total Cost with Outside Labor	Total Cost - In- house Labor	
4-40W F40T12/M	71	172	12,212	2-28W F28T8/E	71	48	3,380	\$ 88.00	\$ 43.82	\$ 9,359.47	\$ 6,248.00	
2-40W F40T12/M	1	86	86	2-28W F28T8/E	1	48	48	\$ 88.00	\$ 43.82	\$ 131.82	\$ 88.00	
2-34W F40T12/M/ES	13	72	936	2-28W F28T8/E	13	48	624	\$ 88.00	\$ 43.82	\$ 1,713.71	\$ 1,144.00	
MH400/M	15	458	6,870	4-54W F54T5/HO	15	234	3,510	\$ 218.00	\$ 113.00	\$ 6,375.00	\$ 3,270.00	

Total Existing Wattage

20,104

Total Proposed Wattage

7,562

\$ 17,580.00 \$ 10,750.00

Available PECO Incentive (.35¢/Watt Reduced)

\$4,389.70

\$4,389.70

Net Project Cost less PECO Incentive \$ 13,190.30 \$

6,360.30









Indoor Lighting Example 2:

				-						
Existing				Proposed				Est. Renovation Cost		
		PA TRM				PA TRM				
	_	Watts /	PA TRM		_	Watts /	PA TRM	Unit Material	Total Material	
Fixture Type	Qty	Fixture	Wattage	Fixture Type	Qty	Fixture	Wattage	Cost	Cost	
4 4004/ 540712/84	214	170	26.000	2 2014 52070 /5	104	40	0.750	ć 99.00	¢ 16 103 00	
4-40W F40T12/M	214	172	36,808	2-28W F28T8/E	184	48	8,758	\$ 88.00	\$ 16,192.00	
2-20W F20T12	46	51	2 3/16	1-14W F14T5/E*	41	14	574	\$ 88.00	\$ 3,608.00	
2 2000 120112	70	31	2,540	1 1400 11413/1	71		374	\$ 88.00	3,000.00	
2-95W F96T12/M/HO/ES	7	207	1,449	2-32W F32T8/E/HO, reflectors*	7	48	336	\$ 125.00	\$ 875.00	
			•					1 11 16 15		
4-95W F96T12/M/HO/ES	5	414	2,070	2-32W F32T8/E/HO, reflectors*	10	48	480	\$ 125.00	\$ 1,250.00	

Total Existing Wattage 42,673

Total Proposed Wattage 10,148 \$ 21,925.00

Available PECO Incentive (.35¢/Watt Reduced) \$11,383.75

Net Project Cost less PECO Incentive \$ 10,541.25







PECO Smart Construction Incentives

- New construction and major building rehabilitation that exceeds ASHRAE 90.1 2007 code requirements
- Prescriptive incentives for energy efficient lighting, HVAC, refrigeration systems
 - Paid per unit, or watts/square foot under code
- Custom incentives for non-prescriptive kWh savings measures including VFD/VSDs not required by code, chillers, exterior lighting, and building envelope measures
 - Paid per annual kWh saved in the first year of operation at \$0.10/kWh
- Whole building incentives for modeled interactive building systems performance, at least 5% below baseline.
- C&I and GNI customers eligible









PECO Smart On-Site

- Incentives for the installation of combined heat and power (CHP) technologies to reduce facility energy use
 - Technologies includes turbines, reciprocating engines and fuel cells
 - Technologies must meet minimum equipment efficiencies to qualify
 - Customer assistance throughout the development and installation of the on-site project

Incentives paid on a combination of installed capacity and generated

energy

Capacity incentives:

First 500 kW	\$300/kW		
Added capacity between 500 kW and 1.5 MW	\$150/kW		
Added capacity between 1.5 MW and 10.0 MW	\$ 75/kW		
Added capacity above 10 MW	\$0/kW		

- Incentive structure
 - Capacity Payment
 - Performance Incentive at \$0.02/kwh for Year 1 performance
 - Capacity incentive cannot exceed 40% of project cost
 - Incentive capped at 50% of project or \$1M





PECO Smart Multifamily Solutions

- Energy savings for multifamily property owners and tenants
 - Buildings with four or more units
 - Includes master-metered and residentially metered properties
 - C&I, GNI, and low income properties are eligible
 - Program marketed directly to building management
- Free direct install of low-cost measures for multifamily residents
- Free energy assessment for common areas including a report of potential energy-saving upgrades
 - Prescriptive incentives for installation of highefficiency equipment that address common areas or whole building improvements









PECO Smart Business Solutions

- Direct installation of energy saving measures
 - Small business customers with peak demand less than 100 kW
 - Target: neighborhood shops, "mom and pop" stores
- Incentives cover up to 50-60% or more of direct installation costs
 - Includes eligible lighting, refrigeration and electric hot water measures
- Program CSP offers
 - Interest free financing available provided by CSP
 - Discounts for lump-sum payments
- Program promoted directly to small business owners











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