



PPL Electric Utilities

Stakeholder Meeting Act 129 Phase Two

PPL Electric Utilities

June 5, 2012

Harrisburg, PA

PPL Electric Utilities Stakeholder Meeting



- Welcome, introductions and overview.
- Safety first.
- “Work in progress.”
- Thank you for joining us.

Meeting Objectives

- Provide overview of PPL Electric Utilities' Act 129 Phase Two planning schedule and process.
- Provide overview of the savings targets and funding proposed by the Pa PUC for PPL Electric Utilities' Act 129 Phase Two.
- Provide information on current measures and programs being considered for Act 129 Phase Two.
- Provide ideas on possible new measures to include in Act 129 Phase Two.
- Obtain input from Stakeholders.

Proposed Savings Targets

- 2.1% energy reduction June 1, 2013 – May 31, 2016.
- 821,072 MWh/yr.
- Equivalent to 0.7% reduction per year.
- Essentially the same per year reduction as Phase One (3% reduction over 4 years = 0.75%/yr.)



Proposed Savings Targets

- Target based on results from the PUC's Market Potential Study -- "program potential" category that addresses achievable potential that is constrained by program funding.
- Other PA EDCs' targets range from 1.6% to 2.9% over the three-year period.
- No demand response (peak demand) reduction target.

Proposed Funding Targets

- Full funding = 2% of 2006 annual revenues.
- \$61.5 million per year, \$184.5 million for 3 years.
- Phase One program acquisition cost is \$0.19 per annual kWh saved.
- Phase Two funding will limit the program acquisition cost to \$0.22 per annual kWh saved.



Proposed Funding Targets

- PPL EU is evaluating whether the Phase Two program acquisition cost of \$0.22 per annual kWh saved is adequate.
 - Lighting savings will decrease ~40% due to EISA but program costs (incentives and implementation) are not expected to change much. Lighting is ~70% of total portfolio savings in Phase One.
 - TRM reduces savings for appliance recycling and other measures by 25 – 40%.
 - Inflation.
 - Low hanging fruit is dwindling.
 - If EDCs are required to rebid CSPs, many Phase One start-up costs may be repeated.

Proposed Funding Targets

At \$0.22 per annual kWh saved:

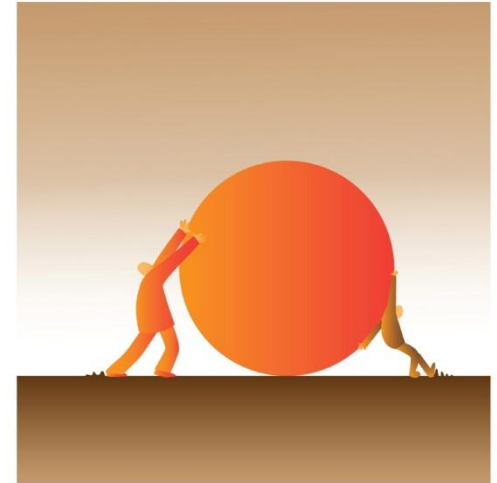
- May have to shift program emphasis to lower cost sectors (residential and large C&I).
- Must find a way to dramatically reduce the cost of low-income programs (Phase One ~\$1.40 per annual kWh saved).
- May have to reduce program delivery costs and/or reduce incentives.

Planning Schedule

March 1, 2012	<ul style="list-style-type: none"> • Release of Secretarial Letter seeking comments on future EE&C planning issues
March 16, 2012	<ul style="list-style-type: none"> • Commission stakeholder meeting
April 17, 2012	<ul style="list-style-type: none"> • Secretarial Letter Comment due date
May 10, 2012	<ul style="list-style-type: none"> • Tentative Implementation Order on Public Meeting agenda • Release of Statewide Evaluator's Pennsylvania Electricity Baseline Study Results • Release of Statewide Evaluator's Pennsylvania Electricity Market Potential Study Results
June 25, 2012	<ul style="list-style-type: none"> • Tentative Implementation Order Comment due date
July 6, 2012	<ul style="list-style-type: none"> • Tentative Implementation Order Reply Comment due date
August 2, 2012	<ul style="list-style-type: none"> • Final Implementation Order on Public Meeting agenda
November 1, 2012	<ul style="list-style-type: none"> • EDCs file EE&C Plans
February 28, 2013	<ul style="list-style-type: none"> • Commission rules on EE&C Plans
June 1, 2013	<ul style="list-style-type: none"> • EE&C Programs begin

Planning Process

- Mandatory Objectives
 - Energy savings \geq 2.1%.
 - Expenditures \leq \$184.5 million.
 - 10% of the required energy savings must be from GNI.
 - 4.5% of the required energy savings must come from low-income customer class.



Planning Process

- Mandatory Objectives
 - **Portfolio** benefit-cost ratio ≥ 1.0 in accordance with the Total Resource Cost Test.
 - Broad stakeholder input and consensus.
 - Costs are attributed to the customer class that receives the direct energy benefit of the measure.
 - “Fair and Equitable” distribution of programs, costs, and savings among customer classes.



Planning Process

- Program/Plan considerations
 - Special emphasis and consideration for multi-family housing.
 - Levelized cost \leq TBD (total program funding divided by lifetime kWh savings).
 - Incentives are \geq TBD % of total expenditures.
 - Incentives are a reasonable percentage of incremental measure cost.
 - Cost per customer class.
 - “Deep” persistent savings.
 - Benefit-cost ratio.

Planning Process

- Program/Plan considerations
 - Customer feedback.
 - Emerging technology.
 - Estimates of savings, # of measures, market penetration, etc. are reasonably achievable.
 - Savings per measure are consistent with Phase One, TRM, and the baseline/market potential study assumptions.
 - Program acquisition costs (program cost per annualized kWh saved) are reasonable for each program and each customer sector.



Planning Process

Obtaining stakeholder input.

- Focus group meetings.
- Customer Surveys.
- Low income working group meeting.
 - July 11, 2012 9AM - noon
 - PA PUC Meeting Room One
- Stakeholder meeting to review Plan.
 - August 8, 2012 9AM- noon
 - PA PUC Meeting Room One



Short Break

Current Measures Under Consideration

Residential



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- Appliance Recycling
 - Refrigerators
 - Freezers
 - Room air conditioners
- Weatherization and Audit
- Efficient Equipment rebates
 - Heat pump water heaters
 - Air conditioners
 - Refrigerators
 - High Efficiency HVAC
- Energy Report Cards
- Lighting



Current Measures Under Consideration

Small C&I



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- **Direct Discount Service**

- **Custom Program**

- **Efficient Equipment Rebates**

HVAC

- PTAC/PTHP
- (DX) Packaged Air Conditioning System
- ASHPs
- Ductless heat pump

Refrigeration

- Commercial Reach-in Refrigerator
- Floating Head Pressure Control
- Display Cases
- Compressor Variable Speed Drive (VSD) Retrofit
- Anti-Sweat Heating Controls

Lighting

- T5 or T8 Fixtures
- High Performance T8 Fixtures
- High Bay Lighting
- De-Lamp
- High-Pressure Sodium (HPS) Lighting
- Pulse Start Metal Halide/Ceramic Metal Halide
- LED Exit Lighting
- Occupancy Sensors
- Lighting Power Density Reduction

Commercial Applications

- Evaporator Fans and Case Fans
- Steam Cookers
- High Efficiency Compressors

Motors and Drives

- Premium Efficiency Motors
- Adjustable Speed Drives and Variable Speed Drives

Current Measures Under consideration

Large C&I



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- **Custom Program**

- **Efficient Equipment Rebates**

 - **HVAC**

 - PTAC/PTHP
 - (DX) Packaged Air Conditioning System
 - ASHPs
 - Ductless heat pump

 - **Refrigeration**

 - Commercial Reach-in Refrigerator
 - Floating Head Pressure Control
 - Display Cases
 - Compressor Variable Speed Drive (VSD) Retrofit
 - Anti-Sweat Heating Controls
 - Chiller

 - **Lighting**

 - T5 or T8 Fixtures
 - High Performance T8 Fixtures
 - High Bay Lighting
 - De-Lamp
 - High-Pressure Sodium (HPS) Lighting
 - Pulse Start Metal Halide/Ceramic Metal Halide
 - LED Exit Lighting
 - Occupancy Sensors
 - Lighting Power Density Reduction

 - **Commercial Applications**

 - Evaporator Fans and Case Fans
 - Steam Cookers
 - High Efficiency Compressors

 - **Motors and Drives**

 - Premium Efficiency Motors
 - Adjustable Speed Drives and Variable Speed Drives

Current Measures Under Consideration Government, Institutional, Non-profit



- **Custom Program**

- **Efficient Equipment Rebates**

 - **HVAC**

 - PTAC/PTHP
 - (DX) Packaged Air Conditioning System
 - ASHPs
 - Ductless heat pump

 - **Refrigeration**

 - Commercial Reach-in Refrigerator
 - Floating Head Pressure Control
 - Display Cases
 - Compressor Variable Speed Drive (VSD) Retrofit
 - Anti-Sweat Heating Controls

 - **Lighting**

 - T5 or T8 Fixtures
 - High Performance T8 Fixtures
 - High Bay Lighting
 - De-Lamp
 - High-Pressure Sodium (HPS) Lighting
 - Pulse Start Metal Halide/Ceramic Metal Halide
 - LED Exit Lighting
 - Occupancy Sensors
 - Lighting Power Density Reduction

 - **Commercial Applications**

 - Evaporator Fans and Case Fans
 - Steam Cookers
 - High Efficiency Compressors

 - **Motors and Drives**

 - Premium Efficiency Motors
 - Adjustable Speed Drives and Variable Speed Drives

New Measures Under Consideration Residential

- Electronics
- Mid-stream programs
- Energy Star[®] “Most Efficient” Products
 - Ceiling fans
 - Pool pumps
- Appliance recycling with a twist
- New homes program
- Smart strip program



New Measures Under Consideration

Low-income

- Program for customers from 151% to 250% of FPL.
- Baseload WRAP.



New Measures Under Consideration

Small C&I

- Revised HVAC tune-up program
- Refrigeration program
- LED exterior lighting program
- Mechanical Program
 - motors – VFD/SVD
 - enhanced air compressors
- Commercial Kitchen program
- Bundle programs for sub-sectors
- Agriculture program



New Measures Under Consideration

Large C&I

- Medical equipment
- Enhanced air compressors
- Mechanical Program
 - Motors
 - VSD/VSD
- Commercial Kitchen Program



New Measures Under Consideration Government, Institutional, Non-profit



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- Multifamily Master Meter Program
- LED Exterior Lighting Program
- Commercial Kitchen Program
- Medical Equipment



Discussion and Questions



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