



**PPL Electric Utilities**

PPL Electric Utilities  
Stakeholder Meeting  
Act 129 EE&C Phase 3  
August 18, 2015

# Agenda

- Costs and savings by customer sector
- Status of RFPs
  - Residential, low-income, non-residential, demand response
  - Tracking system
  - EM&V
- Input for low-income coordination with PPL LIURP and other agencies
- Input for multi-family coordination across PPL program CSPs
- Input for specific measures desired

# Costs and Savings by Customer Sector

- PPL estimated the savings and costs by sector before issuing RFPs
  - Could not leave this decision to bidders
  - Interdependent across RFPs
- Objectives-- balance the following
  - Savings are reasonable compared to market potential by sector
  - Program acquisition cost can vary significantly by sector and measure mix. Must stay within overall portfolio cost cap
  - Costs by sector are reasonable compared to revenue by sector
  - Meet the overall compliance target, low-income (higher than phase 2), and GNI (lower than phase 2)

# Phase 3 Estimated EE Costs



PPL Electric Utilities

	Estimated Ph 3 Costs (\$1000)	% of Ph 3 Cost	% of Ph 2 Cost	% of 2008 Revenue
Residential Direct EE	\$99,000	39%	36%	
Low-income Direct EE	\$47,000	19%	14%	
<b>Total Resid &amp; LI Direct EE</b>	<b>\$146,000</b>	<b>58%</b>	<b>50%</b>	<b>45%</b>
Sm C&I Direct EE	\$63,000	25%	24%	
Lg C&I Direct EE	\$34,000	13%	10%	
GNI Direct EE	\$10,000	4%	16%	
<b>Total Non-Resid Direct EE</b>	<b>\$107,000</b>	<b>42%</b>	<b>50%</b>	<b>55%</b>
<b>Total Portfolio Direct EE</b>	<b>\$253,000</b>			

*The higher Ph 3 low-income compliance target, the requirement for all LI savings to come from income-qualified programs, and the lower GNI target contribute to the higher % of costs for LI (and residential as a whole) vs. Ph 2 and vs. 2008 revenue*

# Phase 3 Estimated Common & DR Costs

	Estimated Ph 3 Costs (\$1000)	% of Ph 3 Budget	% of Ph 2 Budget
EE Direct Costs	\$253,000	81.1%	80%
Common EE Costs **	\$42,000	13.5%	20%
<b>Total EE Costs</b>	<b>\$295,000</b>	<b>94.6%</b>	<b>100%</b>
DR Direct Costs*	\$15,000	4.8%	N/A
DR Common Costs**	\$2,000	0.6%	N/A
<b>Total DR Costs</b>	<b>\$17,000</b>	<b>5.4%</b>	<b>N/A</b>
<b>Total Portfolio Costs</b>	<b>\$312,000</b>		

***We are driving common costs down in Phase 3, from ~20% to 14% of portfolio costs***

\* Allocation to customer sectors not available at this time

\*\* Includes SWE costs (\$5,000 total EE + DR)

# Phase 3 Estimated Savings by Customer Sector

	Estimated Ph 3 Savings (MWh/yr)	% of Ph 3 Portfolio Savings	% of Ph 2 Portfolio Savings	% of Market Potential Savings**
Residential	678,000	42.7%	36.5%	
Low-income	88,000 (79,367 target)	5.5% (6.1%)*	4.1%	
<b>Total Resid &amp; LI</b>	<b>766,000</b>	<b>48.3%</b>	<b>40.6%</b>	<b>55.1%</b>
Sm C&I	475,000	30%	30.3%	27.5%
Lg C&I	270,000	17%	16.2%	17.4%
GNI	75,000 (50,507 target)	4.7% (5.2%)*	12.9%	incl
<b>Total Non-Resid</b>	<b>820,000</b>	<b>51.7%</b>	<b>59.4%</b>	<b>44.9%</b>
<b>Total Portfolio</b>	<b>1,586,000</b> (1,443,035 target)			

\* % of portfolio compliance target. Basis of compliance.

\*\* Statewide, not PPL EU specific

# Phase 3 Estimated EE Program Acquisition Costs



	Estimated Ph 3 EE Costs (direct + common, \$1000)	Estimated Ph 3 Savings (MWh/yr)	Estimated Ph 3 EE Program Acq Cost (\$/annual kWh)	Ph2 EE PAC (\$/annual kWh)
Residential	\$115,400	678,000	\$0.17	\$0.28
Low-income	\$55,000	88,000	\$0.62	\$1.61
<b>Total Resid &amp; LI Direct EE</b>	<b>\$170,400</b>	<b>766,000</b>	<b>\$0.22</b>	<b>\$0.36</b>
Sm C&I	\$73,500	475,000	\$0.15	\$0.23
Lg C&I	\$39,500	270,000	\$0.15	\$0.18
GNI	\$11,700	75,000	\$0.16	\$0.37
<b>Total Non-Resid</b>	<b>\$124,700</b>	<b>820,000</b>	<b>\$0.15</b>	<b>\$0.25</b>
<b>Total Portfolio</b>	<b>\$295,100</b>	<b>1,586,000</b>	<b>\$0.186</b>	<b>\$0.29</b>

**36% reduction in overall PAC vs. Ph 2. Greater for low-income.**

# Phase 3 Summary by Customer Sector

	% of Market Potential Savings	% of Portfolio Savings	% of Portfolio Cost	Estimated Ph 3 EE Program Acq Cost (\$/annual kWh)
Residential		42.7%	39%	\$0.17
Low-income		5.5%	19%	\$0.62
<b>Total Resid &amp; LI</b>	<b>55.1%</b>	<b>48.3%</b>	<b>58%</b>	<b>\$0.22</b>
Sm C&I	27.5%	30%	25%	\$0.15
Lg C&I	17.4%	17%	13%	\$0.15
GNI	incl	4.7%	4%	\$0.16
<b>Total Non-Resid</b>	<b>44.9%</b>	<b>51.7%</b>	<b>42%</b>	<b>\$0.15</b>

**We will exceed the cost cap if we increase residential + LI savings to ~55% of portfolio savings (i.e. align % savings to market potential). We would also have to reduce the PAC for residential which would decrease incentives and jeopardize likelihood of achieving the savings.**



# Questions

- Is our proposed savings and costs by customer sector in line with everyone's expectations?
- Detailed program design (EE&C Plan) is required before finalizing the assumptions
  - Measure mix
  - Program mix
  - Incentive levels
  - Estimated participation levels for each measure
  - Cost-effectiveness testing
  - Net-to-gross estimates

# Status of RFPs

- PPL received bids for residential, low-income, non-residential, and demand response program implementation contracts
- Includes program design, implementation, segmentation, marketing, customer care, and rebate processing
- All bids within cost and savings objectives
  - No major concerns
  - Reasonable variety of programs and measures
  - Significantly lower administrative costs with this approach

# Status of RFPs

- Also received bids for a new tracking system and for independent evaluation
- Cost savings are likely (lower cost per year)

# Residential



- Proposed programs generally include
  - Appliance recycling
  - Student/parent education
  - Home comfort (new and existing homes)
  - Efficient equipment (heat pump water heaters, central A/C, air source heat pumps, ductless heat pumps, smart thermostats, refrigerators and some other appliances)
  - Upstream LEDs (no CFLs)
  - Behavior and education (“next generation”)
  - Online or on-site energy audit/surveys
  - Enhanced trade ally network
  - General move toward mid-stream incentives over time
  - Pilots for new technology
  - Increased emphasis for multi-family (individually metered)

# Residential “Behavior”



PPL Electric Utilities

- Behavior and education comprises ~ 25% to 35% of total residential savings
- Cannot meet budget and savings target with less than 25%
- “Next generation” program with a different focus than Phase 2
  - More personalized and informative
  - Enables other programs
  - Gateway to frequent (“constant”) customer EE&C engagement and cross promotion with other programs
  - Significant opportunity for customer/market segmentation and analytics

# Low-income

- Program to focus on direct-install measures where possible
- Expect fairly comprehensive weatherization measures, comparable to Phase 2
- Significant reduction in administrative costs
- Program acquisition cost much lower than Phase 2, especially direct-install measures

# Demand Response

- Too early to communicate the likely program and customer mix
- Bids are within budget for desired peak reductions
- Need PaPUC clarification about several issues in the implementation order

- Input from stakeholders will help to address key coordination issues
  - Avoid competition between ACT 129 and LIURP programs, and ensure success of both programs
  - Offer comprehensive and life safety measures through one or both programs
  - Minimize number of site visits while ensuring customer receives all services the home needs regardless of whether it comes from ACT129 or LIURP
  - Ensure customers view this as one program, and eliminate confusion with outreach campaigns



# Leveraging Funding Sources



PPL Electric Utilities

- Input from stakeholders will help to address how to leverage other agencies
  - What programs are available
  - Will these programs align with Phase 3 timing
  - What is the schedule/timing for application submission and approval process
  - Do their program requirements align with our current processes
  - How do we identify and secure available funding
  - Identify key partnership opportunities for ACT129 to support organizations to upgrade energy efficiency in the home and claim savings (ex. Habitat for Humanity)

# Multi-family coordination



- Consider a single point of contact for inbound inquiries from multi-family units
  - One CSP could act as a “coordinator” for inquiries from customer/building owners
  - Route the customer/building owner to the appropriate CSP for further action and implementation
  - Coordinate projects across multiple CSPs

# Multi-family coordination

- Outreach for individually metered units
  - Residential units will be handled through Res CSP
  - Residential units with majority of low-income residents, whole building will be addressed by LI CSP
    - Tenant / Landlord issues require focused effort to ensure whole building is accessible
    - Need to determine what percentage of low-income residents constitutes majority
    - Coordination with Non Res CSP for savings/budget for common areas

# Multi-family coordination

- Outreach for master metered
  - Low-income tenants and common areas addressed by LI CSP
  - Non-low-income units will be addressed by non Res CSP

# Contact Information

- Pete Cleff [pdcleff@pplweb.com](mailto:pdcleff@pplweb.com)
- Maureen Fenerty [mafenerty@pplweb.com](mailto:mafenerty@pplweb.com)
- Dirk Chiles [dschiles@pplweb.com](mailto:dschiles@pplweb.com)