

# DUQUESNE LIGHT

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## Act 129 Collaborative Exchange Meeting Residential Subgroup

# **DUQUESNE LIGHT**

## **Act 129 Collaborative Exchange Meeting**

**April 23, 2009**

### **Agenda**

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- I. Welcome/Introductions
- II. General Session
- III. Breakout Sessions
- IV. Subsequent Subgroup Meetings

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# General Session

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- Review:
  - Requirements of Act 129
  - Forecast Results
- Sector and Sub-sector Statistics

## What are the goals?

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- The Act requires the achievement of 1.0% and 3.0% reductions in consumption in our service territory by May 31, 2011 and May 31, 2013 respectively, as measured against the June 2009 – May 2010 kWh sales forecast.
  - 140,885,117 kWh by 2011
  - 422,565,351 kWh by 2013
- The Act requires the achievement of a 4.5% reduction by May 31, 2013 in peak demand in our service territory as measured against the 2007 June – September average of the 100 hours of peak demand.
  - 113 MW in the summer of 2012
- Of these targets, 10% of the reductions must come from government, municipal, educational and non-profit accounts.

## Where does the funding for the programs come from?

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- Act 129 sets annual spending on the programs at 2% of the EDC's 2006 total retail revenue. For Duquesne that equates to a little under \$20 million per program year.
- Law provides for current recovery of these dollars from customers classes relative to the dollars expended on the programs for each class.
- Duquesne is also studying the stimulus package for opportunities to take advantage of funding for energy efficiency that would allow for a broader implementation of our programs and greater reductions in energy use and demand.

## Which programs will qualify for inclusion in Duquesne's plan?

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- Measures that will get PUC approval **MUST** be cost effective as measured by a Total Resource Cost Test, the particulars of which are being developed by the PUC.
- This test includes **ALL** expenditures on a program measure, both what the customer contributes and what Duquesne Light would contribute.
- The ultimate plan to be approved should represent an array of programs that optimize the available funding to achieve the greatest energy and peak demand savings.

# Forecast Annualized Energy Efficiency Potential and Program Budgets

## DLCo Forecast Annualized Energy Efficiency Potential and Program Budgets

	(2011) Sector Use kWh	Technical Potential kWh	Economic Potential kWh	Achievable Program Potential kWh	Achievable Life-Cycle Potential kWh	Achievable Program Potential kW	Program Costs	NPV Avoided Cost of Supply	TRC
<b>Residential</b>	4,276,840,291	464,548,955	263,784,114	57,019,772	916,942,563	27,927	\$5,072,989	\$55,777,299	4.2
<b>Commercial</b>	6,852,783,429	313,000,430	207,886,260	67,973,214	811,446,874	15,950	\$9,515,151	\$54,345,940	2.2
<b>Industrial</b>	2,914,124,575	853,866,072	703,725,145	32,056,756	320,625,105	4,951	\$3,984,097	\$20,728,167	3.6
<b>Composite</b>	14,043,748,296	1,631,415,457	1,175,395,519	157,049,742	2,049,014,542	48,828	\$18,572,237	\$130,851,406	3.0
				<i>% Annual Consumption</i>	1.1%				

		Annual kWh Use	Achievable kWh	Impact %	Program Funding	% Costs
<b>Residential</b>	30%	4,276,840,291	57,019,772	1.3%	\$5,072,989	27.3%
<b>Commercial</b>	49%	6,852,783,429	67,973,214	1.0%	\$9,515,151	51.2%
<b>Industrial</b>	21%	2,914,124,575	32,056,756	1.1%	\$3,984,097	21.5%
		14,043,748,296	157,049,742		\$18,572,237	

# Customer Sector Information - Residential

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<b>Residential Housing Stock</b>	<b>2011 Dwellings</b>	
Single Family Post-1978	58,411	10.9%
Single Family Pre-1978	329,561	61.7%
Multi-Family Post-1978	20,984	3.9%
Multi-Family Pre-1978	118,393	22.2%
Mobile Homes Post-1978	996	0.2%
Mobile Homes Pre-1978	5,622	1.1%
<b>Total</b>	<b>533,968</b>	
Total Post-1978	80,391	15.1%
Total Pre-1978	453,577	84.9%

# Residential Sector Programs

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## Residential Umbrella Program

- Provides a level of service available to *all* customer sectors
- Puts in-place standard terms, conditions, operating processes and incentive levels (prescriptive and custom)

**Sub-Programs** (specialized programs focused on overcoming participation barriers of the major market segments)

- **Low-Income Weatherization**
- **Potential Other sub-Programs:**
  - **Non-Low-Income Whole House Weatherization**
  - **Refrigerator Recycling**
  - **Up-Stream / Mid-Stream Rebate Programs**
  - **Cross-cutting schools programs**

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# Breakout Sessions

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- Introduction (Customers and Service Providers)
- Review Section/Sub-sector Statistics
  - Energy Consumption
  - Program Descriptions
  - Implementation Approach
    - Delivery process
    - Measures
  - Estimated Funding Goals & Budgets (incentives/administration)
- Receive and Record Comments

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Approximately 20% of households in the Duquesne Light's service area would be income qualifying for low-income programs.

# Residential High-Level Description of Programs

## Residential Umbrella Program

- Itemized Program Incentives
- Allows customers to reserve funds via phone, fax, internet or mail
- Menu of approved measures and incentive levels simplifies the customer process; provides a “per-widget” rebate
- Outreach Channels: local governments, community organizations, chambers of commerce, contractors, retail distribution
- May be implemented by one of more vendors

## Residential Sector Measure Incentives

Measure Description	Incentive	Unit
13-17W CFL Screw-in	\$2.48	Lamp
18-22W CFL Screw-in	\$3.20	Lamp
23-26W CFL Screw-in	\$4.08	Lamp
26-50W CFL Screw-in	\$5.22	Lamp
Ceiling Insulation R30 (ASHP Heating)	\$0.24	ft <sup>2</sup>
Ceiling Insulation R30 (CAC HP Cooling)	\$0.04	ft <sup>2</sup>
Ceiling Insulation R38 (ASHP Heating)	\$0.04	ft <sup>2</sup>
Ceiling Insulation R38 (CAC HP Cooling)	\$0.04	ft <sup>2</sup>
Duct Insulation (ASHP Heating)	\$0.04	Linear ft
Duct Repair (ASHP Heating)	\$0.14	Linear ft
EnergyStar Fridges	\$14.85	Refrigerator
ES Indoor Fixture	\$2.18	Fixture
ES Outdoor Fixture	\$6.44	Fixture
ES Torchieres	\$14.85	Torchiere
Faucet Aerators	\$4.95	Aerator
High Efficiency Pool Pump and Motor	\$90.09	Motor
Linear Fluorescent T5/T8	\$1.74	Lamp
Low Flow Showerhead	\$14.85	Showerhead
Occupancy sensor based controls	\$17.33	Sensor
Pipe Wrap	\$2.48	Linear ft
Programmable Thermostat (ASHP Heating)	\$74.25	Thermostat
Programmable Thermostat (CAC HP Cooling)	\$74.25	Thermostat
Refrigerator Recycling	\$119.20	Refrigerator
Solar Water Heat	\$449.57	System
Wall Insulation R19 (ASHP Heating)	\$0.17	ft <sup>2</sup>
Wall Insulation R21 (ASHP Heating)	\$0.05	ft <sup>2</sup>
Whole House Fans (CAC HP Cooling)	\$198.28	Fan

# Residential High-Level Description of Programs

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## Low-Income Weatherization

- Measures promoted as well as the overall program must be cost-effective (must pass the TRC)
- Program offerings will support and expand existing regional low-income serving programs.
- Implementation will leverage existing community engagement channels including local, county, state and federal activities.
- Implementation contractors will have a proven track record implementing cost-effective energy efficacy programs serving low-income sectors.

# Implementation Approach

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<b>EE Sector</b>	<b>Program</b>	<b>Implementation</b>
<b>Residential</b>	<b>Residential Rebate Program Low-Income Weatherization</b>	Core Team (or Contractor) Sub-program Contractor
<b>Commercial</b>	<b>Commercial Rebates (umbrella) Office Buildings Healthcare Retail Stores &amp; Restaurants Education Public Agency Program (10%)</b>	Core Team (or Contractor) Sub-program Contractor Sub-program Contractor Sub-program Contractor Sub-program Contractor Core Team (or Contractor)
<b>Industrial</b>	<b>Industrial Rebates (umbrella) Primary Metals Chemicals Industrial Rebates (Mixed)</b>	Core Team (or Contractor) Sub-program Contractor Sub-program Contractor Sub-program Contractor
<b>Demand Response Programs</b>	<b>Utility Interface Residential DR Small/Mid Commercial DR Large C/I Curtailable Load</b>	Core Team (or Contractor) Sub-program Contractor Sub-program Contractor Sub-program Contractor

# Estimated Goals & Budgets

	Program Budgets				Program Impacts Energy (kWh)			
	2009	2010	2011	2012	2009	2010	2011	2012
<b>Residential</b>								
<b>Residential Rebate Program</b>	\$4,024,706	\$4,058,391	\$4,092,076	\$4,126,040	11,403,954	45,615,818	45,994,429	46,376,183
<b>Low-Income Weatherization</b>	\$1,006,176	\$1,014,598	\$1,023,019	\$1,031,510	2,850,989	11,403,954	11,498,607	11,594,046

	2010		Total
<b>Residential</b>	<b>Administration</b>	<b>Incentives</b>	
Residential Rebate Program	\$811,678	\$3,246,713	\$4,058,391
Low-Income Weatherization	\$202,920	\$811,678	\$1,014,598
	\$1,014,598	\$4,058,391	\$5,072,989

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## Discussion, Comments & Recommendations

# Contact Information

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