Stimulating Energy Efficiency in Kentucky

Fact Sheet #2: ACEEE Assessment of Utility Program Portfolios

Purpose: American Council for an Energy Efficient Economy (ACEEE) conducted a survey of utility-run energy efficiency portfolios in ten states, including Arkansas, Georgia, Illinois, Indiana, Iowa, Michigan, North Carolina, Ohio, Pennsylvania, and Tennessee.

Key Findings:

- Biggest factor for successful energy efficiency programs is **experience:**
  - Longer running program portfolios tend to achieve greater savings and have lower costs.
  - Analysis over time shows that savings, as a percentage of sales, increases, and cost of saved energy decreases over the duration of a portfolio's lifespan.
- **Diverse portfolios** help to target different sectors (residential, commercial, industrial, government), but also to offer range of options within those sectors, so customers can utilize programs that work best for them.
- Successful portfolios often include the following types of programs:
  - **Residential**
    Lighting (CFL's);
    Home energy assessments/audits with rebates and list of contractors
    Appliance rebates (Energy Star);
    Appliance recycling with Energy Star replacements;
    New Home construction (Energy Star); and
    Low-income Weatherization and incentives
  - **Commercial/Industrial**
    Lighting;
    New Construction;
    Incentives for high efficiency HVAC;
    Prescriptive initiatives;
    Custom incentives (customer works with utility to develop custom solutions); and
    Appliance/equipment rebates (Energy Star)
- **Robust, transparent reporting** of program data and results is essential in order to evaluate and compare utility portfolios, and demonstrate effectiveness of efficiency to energy consumers.
- Direct, widespread **marketing** and significant **incentives** designed to meet the needs of each customer class are both integral components of successful portfolios

cont. next page

- In most cases, the main impetus/driving force behind increasing investment in energy efficiency was a mandate from state utility commissions or legislatures, which set annual savings targets.
  - Nevertheless, many utilities had been offering programs well before the presence of mandated standards, recognizing that energy efficiency is a least cost reliable resource.

- Cost of saved energy is almost always lower than the cost of new electricity production, especially with utilities that have mature program portfolios. – compared to Kentucky?
  - A 2009 ACEEE study of utility program data in 14 states found average cost of saved energy to be around $0.025/kWh, which was less than one third the cost of coal-powered generation.

Efficiency Portfolio Examples: Arkansas and Ohio

Below are the summary of analyses from the utilities examined in Arkansas and Ohio.

Program Year	# Utilities Assessed	% Savings (of total sales)	Levelized CSE ($/kWh)
Arkansas			
2008	3	0.09% - 0.18%	$0.012 - $0.012
2009	3	0.16% - 0.24%	$0.006 - $0.010
Ohio*			
2008	1	0.26%	-
2009	6	0.05% - 0.96%	$0.005 – $0.042
2010	4	0.00% - 1.48%	$0.007 – $0.009

* 2010 savings for Ohio are relative to 2009 retail sales as 2010 retail sales had not yet been reported.