

Bill and Rate Impact Analysis for Energy Efficiency Programs: Proposed Approach (Initial Recommendation)

Council Consultants

MA EE Advisory Council Meeting
April 14, 2009

Outline of Presentation

- Consultant-recommended approach and method for bill and rate impact analysis, consistent with the DPU 08-50-A order
- Recommendation: a Council-sponsored working group on bill and rate impact analysis, including review of Consultant-recommended approach and input data/assumptions

Requirements of the Green Communities Act

- The Green Communities Act requires the Department (DPU) to “consider the effect of rate increases on residential and commercial customers” when reviewing proposals for increased funding of energy efficiency activities. G.L. c. 25, § 19(a).
- Green Communities Act (GCA)
Chapter 169 of the Acts of 2008

DPU Order in 08-50-A

- Comprehensive and well-documented assessment of rate impacts and average bill impacts associated with their energy efficiency activities
- Important to properly quantify and present the rate and average bill impacts of the energy efficiency programs. This requires capturing the total effects on costs and sales, as well as presenting the rate and average bill impacts in a way that is meaningful and easily understood.
- Use consistent inputs, assumptions and methods, to the extent it is appropriate and possible to do so

DPU Order in 08-50-A (con't)

- Rate and average bill impact estimates should be performed on a portfolio basis, as opposed to on a program-by-program basis, because it is the entire portfolio of programs that will affect customer rates and bills.
- Rate and average bill impact estimates should account for the impacts over the long-term (e.g., for the average life of efficiency measures), in order to capture the full effect of energy efficiency savings and costs.
- Rate and average bill impact analyses should compare: (1) the estimated rates and bills with the energy efficiency programs in place to (2) the estimated rates and bills that would be in place in the absence of the energy efficiency programs.
- Rate and average bill impact estimates should be conducted for each customer class, as well as for all customers on average.
- Rate and average bill impact estimates should present not only the absolute dollar increase in distribution rates and bills but also the percentage increase in distribution rates and bills.
- Rate and average bill impact estimates should present the percentage impact on total rates and bills, as well as the percentage impact on distribution rates and bills.
- Rate and average bill impact estimates should include ratepayer costs associated with the mandatory charge of 2.5 mills per kWh, as well as any other funding from distribution customers as allowed by G.L. c. 25, § 19(a). However, rate and average bill impact estimates should not include the funds generated from the forward capacity market or the funds generated by RGGI, as these funds are not directly recovered from the Program Administrator's electricity customers.
- Rate and average bill impact estimates should account for the revenues that are collected through a revenue decoupling mechanism or through an interim lost base revenue adjustment mechanism.

Savings, Costs, and Rate Impacts

Base Case			Efficiency Case					Utility System Benefits	
Annual Revenue Requirement (\$ Million)	Annual Sales (at meter) (GWh)	Average Rate (\$/kWh)	Annual Revenue Requirement (\$ Million)	Cumulative Annual Energy Savings at meter (GWh)	Cumulative Annual Energy Impacts (w/ half-year shift) (GWh)	Annual Sales (GWh)	Average Rate (\$/kWh)	Avoided Costs of Supply (Energy & Capacity) (\$/kWh)	Savings Benefits (\$ Million)

Program Funding					LBR	Recovered in Rates		DRIFE	Rate Impacts Including DRIFE		Rate Impacts Excluding DRIFE	
Program Budgets (\$ Million)	SBC Funds for Efficiency (\$ Million)	RGGI Funds for Efficiency (\$ Million)	FCM Funds for Efficiency (\$ Million)	Additional Program Funding Needed (EERF or other) (\$ Million)	Lost Base Revenue Savings (\$ Million)	Additional Costs (Additional Program + Net Lost Revenue) (\$ Million)	Total Costs (SBC + Additional + Net Lost Revenue) (\$ Million)	DRIFE Price Effects (Energy & Capacity) (\$ Million)	Rate Change (\$/kWh)	% Rate Impact	Rate Change (\$/kWh)	% Rate Impact

Bill Impacts, Additional Funding

- Preliminary estimate of bill impacts for 2010, without accounting for savings or DRIPE

Current Bill Impacts

0.0025 \$/kWh 2.5 mills
688 kWh per residential customer
\$1.72 per month, average residential customer

Incremental Bill Impacts from Additional Funding

0.0002 \$/kWh 0.2 mills
688 kWh per residential customer
\$0.17 per month, average residential customer

Total Bill Impacts

0.0027 \$/kWh 2.7 mills
688 kWh per residential customer
\$1.89 per month, average residential customer

Bill Impacts, Comprehensive

Base Case			Eff Case		Bill Impacts Per Customer			
Annual Revenue Requirement (\$ Million)	# of Customers	Average Monthly Bill (\$)	Cumulative Annual Energy Savings (GWh)	Average Rate (\$/kWh)	% Rate Impact	Average Monthly Rate Impact (\$)	Average Monthly Savings Impact	Average Monthly Bill Impact (\$)

Next Steps

- Recommendation: a Council-sponsored working group on bill and rate impact analysis, including review of Consultant-recommended approach
- Initial analysis of the bill and rate impacts, for electric and gas (per DPU 08-50-A order)
- Coordinate with PAs and stakeholders on inputs & assumptions for bill and rate analysis
- Council review of analysis