

International Energy Agency's Demand Side Management Programme

Panel 1: U.S. Experiences with Energy Efficiency Resource Standards

Adam Cooper April 27th, 2011

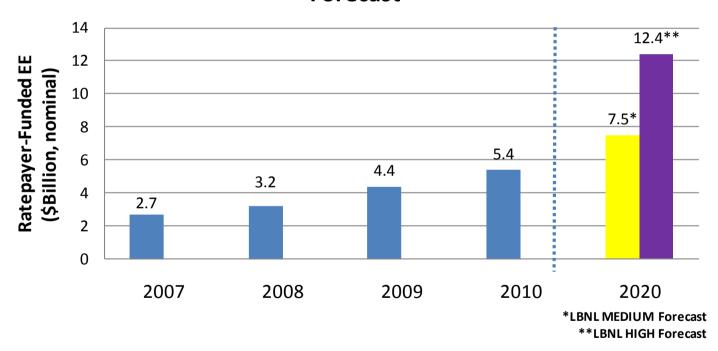
Energy Efficiency Resource Standards

- Increasingly common in the US
 - (26 states have one; all with their own wrinkle)
- Can be integrated into a resource standard, e.g. EE credit in RPS
- Requires a resource (\$) commitment by the utilities
 - Policy stability and supportive regulatory treatment (e.g. decoupling & performance incentives) improve likelihood of success



U.S. electric efficiency budgets growing rapidly (2007-2010)

Electric Efficiency Budget, 2007-2010 and 2020 LBNL Forecast





Source: IEE Brief. Summary of ratepayer-funded electric efficiency impacts, expenditures, and budgets. January 2011.

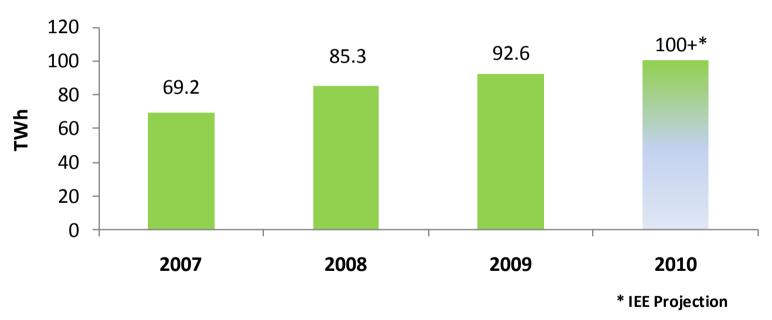
Utilities play major role in ratepayer-funded electric efficiency budgets in U.S.

Electric Efficiency 2007-2010 U.S. Budgets					
				Utility Share of	Percent
Total		Utility	Non-Utility	Total	Increase
2007	\$2,722,788,884	\$2,413,639,443	\$309,149,441	89%	
2008	\$3,165,329,920	\$2,704,072,429	\$461,257,491	85%	16%
2009	\$4,370,445,097	\$3,796,110,308	\$574,334,789	87%	38%
2010	\$5,433,087,642	\$4,789,681,107	\$643,406,535	88%	24%



U.S. electric efficiency savings projected to exceed 100 TWh in 2010

U.S. Electric Efficiency Impacts (2007-2009 & 2010 Forecast)





Regulatory frameworks support energy efficiency programs

- States with ratepayer funded EE programs have cost recovery mechanisms in place to recover program expenditure
- Of the top 20 states in terms of EE budgets, 17 have a regulatory framework in place that supports EE
- Overall, 31 states have some form of fixed cost recovery pending or approved
 - Revenue Decoupling: 20 states
 - Lost Revenue Adjustment Mechanism: 15 states
- 28 states have performance incentives for energy efficiency programs



Source: IEE Brief. Summary of ratepayer-funded electric efficiency impacts, expenditures, and budgets. January 2011.

Numerous benefits of EERS

- Energy and emissions savings
- Relatively easy to start an EE program (if cost recovery pathway is identified ahead of time)
- EE is cost-effective
- Provides a target and stabilizes compact between regulator and utility



What policy goal(s) is the EERS trying to accomplish?

- Beyond being a legislated mandated, why would a utility incorporate an EERS into their business model?
- Should the focus of an EERS simply be some % reduction of retail electric sales?
- Is there a broader corporate mission that an EERS can support?
- Treat energy efficiency as a resource



Broad host of issues going forward

- Differences in electric rates, measure life values, etc... impact the cost effectiveness of programs across states
- Early success of modest EERS goals, but how will the cost of achieving the more aggressive reductions be received?
- Difficult to retain customers interest and willingness to participate in EE programs
 - "Didn't we do this already?"
 - Be it appliance rebates, behavior, etc...



Success Depends on Many Factors

- Growth of program portfolio
- Continuous energy education efforts
- New/emerging energy efficiency technologies
- Develop methodologies to quantify savings from non-traditional programs
 - Behavioral
 - Codes and Standards



Observation

- Aligning utility interests with state EE goals likely requires performance incentives
- Carbon/climate policy is a big wild card with large impacts on the cost-effectiveness of EE
- Connecting an EERS to generation standards, like a CES or RPS, strengthens the use of EE as a resource
- Policy stability from regulators and legislators to utilities enables long term planning



Fundamentals for EE are strong

- New power plant construction is expensive
- Regulatory risk on new plant cost recovery
- High and volatile energy prices
- Risk of carbon costs
- EE industry jobs
- Policies available for addressing utility financial concerns regarding EE (decoupling, incentives)
- State/national dollar drain from energy imports



A challenging situation--Minnesota, Xcel Energy

- Next Generation Act of 2007
- Long term goal to reduce retail electric sales by
 1.5% (y-o-y)
- Xcel Energy likely not able to meet goals
 - Potential savings projections falling short of target
- Where has the low hanging fruit gone?
- Would larger rebates and new technologies help?
 - Yes and Yes. But rebates are not a sustainable path





For more information, contact:

Adam Cooper Manager

Institute for Electric Efficiency
The Edison Foundation
701 Pennsylvania Ave., N.W.
Washington, D.C. 20004-2696
202.508.5550

acooper@edisonfoundation.net

www.edisonfoundation.net/IEE

