

The Value Proposition of Global Appliance Standards for the Power Sector

CLASP 2010 Appliance Summit

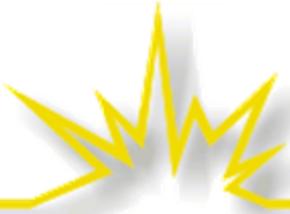
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The Regulatory Assistance Project

Vermont ♦ Maine ♦ New Mexico ♦ California ♦ Illinois ♦ Oregon ♦ Washington



About the Regulatory Assistance Project

- RAP is a non-profit organization providing technical and educational assistance to government officials on energy and environmental issues. RAP Principals all have extensive utility regulatory experience.
 - Richard Sedano was commissioner of the Vermont Department of Public Service from 1991-2001 and is an engineer.
- Funded by foundations and the US Department Of Energy. We have worked in nearly every state and many nations.
- Also provides educational assistance to stakeholders, utilities, advocates.



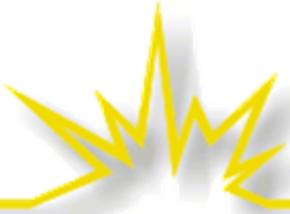
Energy Efficiency and the Power Sector

- Challenge: fully recognize value of energy efficiency
- First cost challenge
 - Cost to acquire savings is borne up front
 - Savings accrue over time



Energy Efficiency Programs Show Their Value

- Over time, EE programs have shown that they are cheaper than supply resources, and can avoid or at least delay new investments
 - And more strategic uses of EE are being demonstrated
 - Energy efficiency as electric capacity
 - Energy efficiency strategically deployed to avoid specific high cost T&D investments
- So regulators include costs in utility rates



Appliance Standards Are Energy Efficiency

- Utility regulators see appliance standards:
 - (if they see them at all)
 - As supportive to EE programs that consumers fund through utility rates
 - They create a performance floor
 - They assume (sometimes wrongly) that everyone (BAU) meets the standard, so programs only have to encourage “above standard” performance
 - For measuring Program Administrator performance, may only count savings above the standard



Background Note on Utilities and Standards

- Utilities generally avoided standards issues (and building code issues too)
 - Not wanting to fight manufacturers/customers
- Utilities generally (not uniformly) now see codes and standards as supportive in the same way regulators do
 - Though in many markets where standards are not enforced well, they would like to count savings from BAU, not from standard level



Energy Efficiency Is A Resource

- Where resource planning is practiced, energy efficiency is generally now seen as a resource
 - Still a long way to go in making this work well
 - Load is still considered static in many planning processes, instead of being a variable and dependent on investment policy



Energy Efficiency Is Reliable

- Track record of energy efficiency program performance
- Track record of state regulatory support (backed by statutes) assures continued and increasing financial support for programs
- Energy efficiency counts in reliability analysis



Appliance Standards as A Resource

➤ Huh?



Appliance Standards as A Resource

- Foreign to utility planners and regulators
 - Calculation of standards effects?
 - Benefit/cost results using typical tests?
 - Evaluation? Measurement? Verification?
 - Nexus of control
 - Utility regulators are interested in what utilities do
 - Utilities don't "do" appliance standards
 - How much can a state do to influence standards?
 - Is standards part of FERC's job?



First Cost of Standards Not Unlike EE Programs

➤ Market dilemma

- How to pay for added manufacturing cost of improved appliances compared with more energy intensive appliances
- EE programs face same dilemma
 - Dilemma solved by raising funds from all customers of the utility or of the state
 - No national charge for energy efficiency today
 - There have been proposals for a national wires charge for efficiency



Step 1

Demonstrate Value

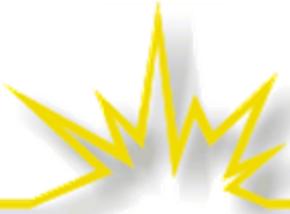
- Appliance Standards do avoid costly investments
 - This is valuable to consumers
 - How much is avoided?



Step 2

Monetize Value

- This means that the benefitting population pays to support the resource
 - Manufacturers' added cost can be offset
- We might hope that carbon revenues could do this
 - New revenue from new revenue source dedicated to a new cost that will help reduce CO₂
 - Without carbon revenue, what to do?



Can support for EE Programs Translate to Standards?

- Preliminary: national standards → int'l
- First, not all states support EE programs
- Second, while possible, state PUCs are not thinking that standards have anything to do with them
 - Significant learning would be needed
- National wires charge could support stds.
 - FERC not thinking this has to do with them



Can IPEEC help convey value and reason to monetize?

- IPEEC could be the process that spotlights value potential from a national or international focus on standards
 - Mobilize state and/or national support for a charge on customers to make a standard work
- Are there examples to build on of utility revenues supporting multi-utility market transformation?



Examples of resource sharing for market transformation

➤ NEEP

- Regional Programs
- Regional EM&V Forum

➤ MEEA

- Regional programs

➤ Regulators have heard about economies of scale and about their beneficial effect on manufacturers and trade allies



How to Nurture the Idea

- Demonstrate value of standards
 - These analyses exist, but few see them
- Translate value to utility system
 - Characterize first cost challenge for key appliances
 - And characterize economies of scale opportunity
- Develop broader awareness and support
 - Address any statutory limits



Summary

- The first cost challenge exists for all energy efficiency
- Energy efficiency programs in a majority of states (not all) address this
 - Still fall short of “all cost effective standard”
- Parallel logic applies, but scale suggests that utility and state are not the right scale
 - National or, more likely global
- Diplomacy, int’l agreements needed



Thanks for your attention

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- RAP Mission: *RAP is committed to fostering regulatory policies for the electric industry that encourage economic efficiency, protect environmental quality, assure system reliability, and allocate system benefits fairly to all customers.*