



Synapse
Energy Economics, Inc.

A New Framework for Energy Efficiency Screening

Capturing the Multiple Benefits of EE

Experts Roundtable on Energy Provider and Consumer Benefits

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Recent Thinking on the TRC and NEBs

- Synapse/National Home Performance Council (NHPC) report¹ found that a huge problem with current screening practices is that the majority of states use the TRC test, but do not include NEBs.
- The report recommended ways to account for NEBs.
- However, in many states this may not be enough. Many states have indicated over the years that they are unwilling or unable to fully account for NEBs.
- Other issues besides NEBs need to be addressed.
- Synapse and NHPC are working with other experts to develop a new framework.

¹“Best Practices in Energy Efficiency Program Screening: How to Ensure that the Value of Energy Efficiency is Properly Accounted For,” available at: <http://www.nhpci.org/projects/costbenefittesting.html>

Key Underlying Causes to Screening Problems

- Many states are significantly undervaluing and underinvesting in efficiency resources.
- The existing screening tests often do not address the overall objectives for implementing energy efficiency resources.
- The existing screening tests frequently do not take into consideration some of the energy policy goals of the states.
- States require that all costs and benefits be monetized; but some key benefits are very difficult to monetize.
- Existing screening practices do not provide adequate information for decision making.

Energy Policy Goals in Legislation in Select States

Public Policy	CA	CO	DE	IL	ME	MA	MI	NV	NM	NY	NC	RI	VT	VA	WA
All Available Energy Efficiency	✓				✓	✓			✓			✓	✓		✓
Utility System Policies:															
System Reliability*	✓		✓	✓				✓	✓	✓	✓	✓	✓	✓	
Affordability / Least Cost*	✓		✓	✓			✓		✓		✓	✓	✓	✓	
Resource Adequacy	✓		✓	✓			✓		✓	✓	✓	✓	✓	✓	
Resource Diversity*	✓	✓	✓	✓			✓	✓			✓	✓		✓	
Energy Security / Reduce Imported Fuels*	✓						✓		✓				✓		✓
Fair Utility Regulation				✓							✓				
Efficient Use of Resources / System Efficiency*			✓	✓				✓			✓	✓	✓	✓	
Economic Use of Resources*				✓				✓		✓	✓				
Consumer/Societal Policies:															
Public Interest (1)	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓	
Reasonable Rates	✓	✓	✓	✓			✓		✓		✓				✓
Reduce the Burden on Low-Income Customers*									✓			✓		✓	
Equity				✓							✓	✓			
Economic Development*	✓	✓	✓					✓		✓		✓	✓	✓	✓
Meet Long-Term Needs		✓	✓	✓						✓	✓				
Encourage Private Investment							✓								
Environmental Policies:															
Environmental Quality (2)*	✓	✓	✓	✓			✓	✓	✓	✓		✓	✓	✓	✓

*An asterisk indicates a policy goal that efficiency helps to achieve.

Criteria for a New Framework

1. Explicitly account for states' energy policy goals.
2. Explicitly account for all relevant costs and benefits, even those that are hard to monetize.
3. Compare all energy resources in a comparable manner.
4. Ensure consistency within each test. If the benefits are not accounted for, the costs should not be included.
5. Provide transparency for all inputs and outputs.
6. Allow for practical application.

Objectives for Screening Energy Efficiency Resources

1. Long-term value to the utility system
2. Long-term value to society

Each state should decide which objective is primary:

- ✓ If primary objective is utility system, then state should apply the Utility Resource Value test.
- ✓ If primary objective is society, then state should apply the Societal Resource Value test.
- ✓ States can use both.
- ✓ No longer a role for the TRC test.

Utility Value Resource Test

	Utility Cost Test	Utility Resource Value Test
Energy Efficiency Costs:		
Utility (or Program Administrator) Program Costs	Yes	Yes
Financial Incentive Provided to Participant	Yes	Yes
Energy Efficiency Benefits:		
Avoided Energy Costs	Yes	Yes
Avoided Capacity Costs	Yes	Yes
Avoided Transmission and Distribution Costs	Yes	Yes
Wholesale Market Price Suppression Effects	Yes	Yes
Avoided Cost of Environmental Compliance	Yes	Yes
Utility Non-Energy Benefits (e.g., reduced arrears)	Yes	Yes
Energy Policy Goals:		
Achieve Other Fuel Savings (e.g., oil, gas, propane)	---	Yes
Assist Low-Income Customers With Energy Costs	---	Yes
Reduce Environmental Impacts	---	Yes
Promote Job Growth and Economic Development	---	Yes
Other Policy Objectives Identified by the State	---	Yes

Societal Value Resource Test

	Societal Cost Test	Societal Resource Value Test
Energy Efficiency Costs:		
Utility (or Program Administrator) Program Costs	Yes	Yes
Financial Incentive Provided to Participant	Yes	Yes
Participant Contribution to Efficiency Resource	Yes	Yes
Energy Efficiency Benefits:		
Avoided Energy Costs	Yes	Yes
Avoided Capacity Costs	Yes	Yes
Avoided Transmission and Distribution Costs	Yes	Yes
Wholesale Market Price Suppression Effects	Yes	Yes
Avoided Cost of Environmental Compliance	Yes	Yes
Other Fuel Savings (e.g., oil, gas, propane)	Yes	Yes
Utility Non-Energy Benefits (e.g., reduced arrears)	Yes	Yes
Participant Non-Energy Benefits (e.g., reduced O&M, productivity)	Yes	Yes
Societal Non-Energy Benefits (e.g., environmental benefits)	Yes	Yes
Energy Policy Objectives:		
Promote Job Growth and Economic Development	---	Yes
Other Policy Objectives Identified by the State	---	Yes

An Example: Low Income Efficiency Programs

- A state chooses to use the Utility Value Resource Test to screen efficiency programs.
- The Commission has established a goal of using efficiency programs to assist low-income customers in reducing their bills.
- A utility offers well-designed, comprehensive efficiency programs to low-income customers but they are not cost effective under the UCT.
- The Commission explicitly recognizes that the UCT test does not account for all of the benefits of the low-income program and allows an adder to the energy benefits as a proxy for these benefits.
- The Commission finds the low-income program is in the public interest because of its long-term value to the utility system, and approves its implementation.

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