Energy Efficiency Screening Coalition Resource Value Framework

NEEP EM&V Forum 2013 Annual Public Meeting December 12, 2013 Pat Stanton Conservation Services Group

About CSG

- ✓ **Results-driven** not-for-profit, founded 1984
- ✓ 23 offices nationwide, 750+ staff, 6 contact centers
- ✓ 30 years experience managing home energy efficiency and renewable energy programs

 Large production programs HVAC and residential retrofit programs for government agencies and electric and gas utilities

 Leader in Energy Efficiency residential program implementation & administration, program design, marketing, call center, training

✓ 3+ million homes and facilities served

✓ \$250+ million in projects annually



Conservation Services Group 50 Washington Street Westborough, MA www.csgrp.com



About CSG

23 offices Diverse geographies, climates, populations

National Headquarters
 Midwest
 Mid-Atlantic
 New England
 Central South

West



Topics

- Primary Screening Test
- Energy Efficiency Screening Coalition (EESC)
- Mission & Principles
- Position Paper
- Resource Value Framework (RVF)
- Additional Screening Issues
- Your Views and Next Steps



Primary EE Screening Test





Energy Efficiency Screening Coalition





Mission and Principles

The Energy Efficiency Screening Coalition

Coalition Mission Statement

The Energy Efficiency Screening Coalition is a group of organizations and individuals that are working together to reform the way that electric and gas utility energy efficiency resources are screened for cost-effectiveness. The purpose of this coalition is to improve efficiency screening practices throughout the United States, so that decision makers can determine which efficiency resources are in the public interest and what level of investment is appropriate.

General Principles for Screening Efficiency Resources

Ratepayer-funded energy efficiency programs have generated tens of billions of dollars of net savings for households and businesses throughout the nation.

In addition to reducing customer bills, energy efficiency programs create real benefits for all ratepayers, by avoiding the need for new power plants, by avoiding transmission and distribution costs, by reducing risk on the utility system, and by helping to achieve a variety of energy policy goals.

Despite these considerable benefits, program administrators in many states are significantly under-investing in energy efficiency, due in part to the cost effectiveness screening methods and practices employed.

The Coalition recommends that the following principles be used for screening efficiency resources.

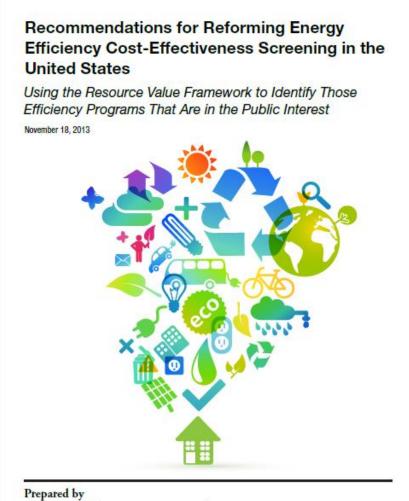
- The Public Interest. The ultimate objective of efficiency screening is to determine whether proposed energy efficiency resources are in the public interest.
- Energy Policy Goals. Efficiency screening practices should account for the energy policy goals of each state, as articulated in legislation, commission orders, regulations, guidelines and other policy directives. These policy goals provide guidance with regard to which efficiency programs are in the public interest.
- 3. Relevant Benefits. Efficiency screening practices should account for all the relevant benefits associated with the screening test used in that state. For example, a state that chooses to include participant costs in its screening test must also include participant non-energy benefits. If a state is unwilling or unable to include reasonable estimates of participant non-energy benefits, then it should not include the participant costs either.
- 4. Hard-to-Quantify Benefits. Efficiency screening practices should not exclude relevant benefits because they are difficult to quantify and monetize. In the absence of better approaches, proxy adders or multipliers should be used to approximate the magnitude of relevant benefits. Alternative benchmarks and regulatory judgment can also be used for those benefits where proxies are not available or appropriate.
- Transparency. Efficiency program administrators should use a standard template to document their assumptions and methodologies, and to provide a transparent, consistent structure for presenting efficiency program costs and benefits.

Adoption of these principles will result in more consistent, comprehensive, symmetric and appropriate efficiency screening practices.

Show your support and join the Energy Efficiency Coalition by going to nhpci.org/campaigns.html



Position Paper



the Energy Efficiency Screening Coalition



Resource Value Framework

✓ The Public Interest
 ✓ Energy Policy Goals
 ✓ Relevant Benefits
 ✓ Hard-to-Quantify Benefits
 ✓ Transparency



	RES	OURCE VAL	UE FRAMEWORK CSPM SCT	
	Program Name:		Date:	
	1. Key Assumptions, parameters and	summary of re	suits	
	Analysis Level	Program		
		Portiolio		
	Measure Life		Discount Rate	
REQUIRED	Projected Annual Savings		Projected Lifetime Utility Savings	
	2. Utility Monetized Costs		Utility Monetized Benefits	
3	Program Administration		Avoided Energy Costs	
2	Incentives Paid to Participants		Avoided Capacity Costs	
	Shareholder Incentive		Avoided T&D Costs	
			Wholesale Market Price Suppression	
			Avoided Environmental Compliance Costs	
			Utility Non-Energy Benefits	
	NPV Total Utility Costs		NPV Total Utility Monetized Benefits	
	3. Public Monetized Costs		Public Monetized Benefits	
9			Public Benefits of Low Income Programs	
RECOMMENDED			Reduced GHG Emissions	
H			Reduced Pollution	
No.			Conserved Other Fuel and Water Resources	
e e e e e e e e e e e e e e e e e e e			Reduced Public Health Care Costs	
	NPV Total Policy Costs		NPV Total Policy Monetized Benefits	
~	4. Participant Monetized Costs		Participant Monetized Benefits	
OPTIONAL - NOT RECOMMENDED	Participant Contribution		Participants' Savings of Other Fuels	
2			Participant Non-Energy Benefits	
3			Low Income Participant Non-Energy Benefits	
8			Participants' Water and Sewer Savings	
2			Participants' Reduced O&M Benefits	
ģ			Participants' Health Impacts	
1			Participant Employee Productivity	
¥.			Participant Comfort	
ē			Other Participant Non-Energy Benefits	
8	NPV Total Participant Cost		NPV Total Monetized Participant Benefits	
	Summary of Monetized Costs and Be		NPV Iotal Moletized Participant Benefits	
REQ'D	Total Monetized Costs		Total Monetized Benefits	
2	Monetized Benefits-Cost Ratio		Net Monetized Benefits	
_	Consideration of Non-Monetized Ben	efits and Cost		
	Non-Monetized Benefits		Comments	
ž	Promotion of Customer Equity		Commences	
Į.	Avoided Lost Opportunity			
8	Promoting Market Transformation			
FECOMMENDED	Economic Development			
	E-CONTROL I MANAGED TRAFT		1	
			·	
e D D	Determination Program is in the Public Interest		Program is not in the Public Interest	



Program Name: Date:					
1. Key Assumptions, parameters and summary of results					
, , , , , , , , , , , , , , , , , , , ,	Program				
Analysis Level	Portfolio				
Measure Life		Discount Rate			
Projected Annual Savings		Projected Lifetime Utility Savings			
2. Utility Monetized Costs	1	Utility Monetized Benefits			
Program Administration		Avoided Energy Costs			
Incentives Paid to Participants		Avoided Capacity Costs			
Shareholder Incentive		Avoided T&D Costs			
		Wholesale Market Price Suppression			
		Avoided Environmental Compliance Costs			
		Utility Non-Energy Benefits			
NPV Total Utility Costs		NPV Total Utility Monetized Benefits			
 3. Public Monetized Costs		Public Monetized Benefits			
	T	Public Benefits of Low Income Programs			
		Reduced GHG Emissions			
	<u> </u>				
	.	Reduced Pollution			
		Conserved Other Fuel and Water Resources			
		Reduced Public Health Care Costs			
NPV Total Policy Costs		NPV Total Policy Monetized Benefits			
 4. Participant Monetized Costs		Participant Monetized Renefits			
Participant Contribution		Participants' Savings of Other Fuels			
		Participant Non-Energy Benefits	!		
		Low Income Participant Non-Energy Benefits			
		Participants' Water and Sewer Savings			
		Participants' Reduced O&M Benefits			
	<u> </u>	Participants' Health Impacts			
		Participant Employee Productivity			
		Participant Comfort			
		Other Participant Non-Energy Benefits			
NPV Total Participant Cost		NPV Total Monetized Participant Benefits			
 Summary of Monetized Costs and Be	nafila				
Total Monetized Costs		Total Monetized Benefits			
		Net Monetized Benefits			
 Monetized Benefits-Cost Ratio		Net Monetized Benefits			
Consideration of Non-Monetized Ben	ents and Cost				
Non-Monetized Benefits		Comments			
Promotion of Customer Equity					
Avoided Lost Opportunity					
Promoting Market Transformation					
Economic Development					
 Determination					
Program is in the Public Interest		Program is not in the Public Interest			



Reference required for all values.

h	Program Name: Date:				
	1. Key Assumptions, parameters and	summary of re	osults		
Analysis Level		Program			
	Portfolio				
ŀ	Measure Life		Discount Rate		
	Projected Annual Savings		Projected Lifetime Utility Savings		
ŀ	2. Utility Monetized Costs		Utility Monetized Benefits		
ľ	Program Administration		Avoided Energy Costs		
ŀ	Incentives Paid to Participants		Avoided Capacity Costs		
ŀ	Shareholder Incentive		Avoided T&D Costs		
ľ			Wholesale Market Price Suppression		
ŀ			Avoided Environmental Compliance Costs		
ľ			Utility Non-Energy Benefits		
	NPV Total Utility Costs		NPV Total Utility Monetized Benefits		
ĺ	3. Public Monetized Costs		Public Monetized Benefits		
ľ		[Public Benefits of Low Income Programs		
			Reduced GHG Emissions		
ŀ			Reduced Pollution		
ŀ			Conserved Other Fuel and Water Resources		
			Reduced Public Health Care Costs		
	NPV Total Policy Costs		ND/ Total Pales Managinal Paragin		
	4. Participant Monetized Costs	:	Participant Monetized Benefits		
	Participant Contribution		Participants' Savings of Other Fuels		
ŀ	Partopart Comparion		Participants Contract Poes Participant Non-Energy Benefits	L	
┝			Low Income Participant Non-Energy Benefits	_	
			Participants' Water and Sewer Savings	\vdash	
ŀ			Patopalis Wadrald Jowo Gavings		
┝			Destructure Dark used ORM Description	1	
			Participants' Reduced O&M Benefits	<u> </u>	
			Participants' Health Impacts		
			Participants' Health Impacts Participant Employee Productivity		
			Participants' Health Impacts Participant Employee Productivity Participant Comfort		
			Participants' Health Impacts Participant Employee Productivity Participant Comfort Other Participant Non-Energy Benefits		
	NPV Total Participant Cost		Participants' Health Impacts Participant Employee Productivity Participant Comfort		
	NPV Total Participant Cost Summary of Monetized Costs and Be Total Monetized Costs	nefits	Participants' Health Impacts Participant Employee Productivity Participant Comfort Other Participant Non-Energy Benefits		



	Program Name:		Date:	
	1. Key Assumptions, parameters and	summary of r	esuits	
		Program		
	Analysis Level	Portfolio		
	Measure Life		Discount Rate	
	Projected Annual Savings		Projected Lifetime Utility Savings	
	2. Utility Monetized Costs		Utility Monetized Benefits	
	Program Administration		Avoided Energy Costs	
	Incentives Paid to Participants		Avoided Capacity Costs	
	Shareholder Incentive		Avoided T&D Costs	
			Wholesale Market Price Suppression	
			Avoided Environmental Compliance Costs	
			Utility Non-Energy Benefits	
	NDV Tatal Utility Costs		7 07	
	NPV Total Utility Costs 3. Public Monetized Costs		NPV Total Utility Monetized Benefits Public Monetized Benefits	
	a. Public Monetized Costs			
			Public Benefits of Low Income Programs	
			Reduced GHG Emissions	
			Reduced Pollution	
			Conserved Other Fuel and Water Resources	
			Reduced Public Health Care Costs	
	Participant Contribution		Participants' Savings of Other Fuels Controlment Non-Energy Benefits Low Income Participant Non-Energy Benefits Participants' Water and Sewer Savings Participants' Reduced O&M Benefits Participants' Health Impacts	
	NPV Total Periscipant Cost		Participant Employee Productivity Participant Comfort Other Participant Non-Energy Benefits IEV Total Monetimed Participant Benefits	
		nefits	Participant Employee Productivity Participant Comfort	
	NPV Total Participant Cost	nefits	Participant Employee Productivity Participant Comfort	
	NPV Total Performent Cont Summary of Monetized Costs and Be Total Monetized Costs Monetized Benefits-Cost Ratio		Participant Employee Productivity Participant Comfort Other Participant Non-Energy Benefits ICV Incel Vocance Participant Constant Total Monetized Benefits Net Monetized Benefits	
	NPV Total Participant Cost Summary of Monetized Costs and Be Total Monetized Costs		Participant Employee Productivity Participant Comfort Other Participant Non-Energy Benefits ICV Incel Vocance Participant Constant Total Monetized Benefits Net Monetized Benefits	



Additional Screening Issues

EESC position paper addresses

- Discount rates
- Screening Level
- Study Period

Other issues to be addressed separately: NTG, Reasonable estimates of NEBs, bill and rate impacts.



Your Feedback

• *If you agree*: Show your support for the mission and principles at

http://nhpci.org/campaigns.html

• *If you don't agree*: We want to understand your concerns

Pat.Stanton@csgrp.com

