Non-Energy Benefits of Energy Efficiency

Non-Energy Benefits (NEBs) are the many and diverse benefits produced by energy efficiency in addition to energy and demand savings. Accounting for NEBs in state policy and utility planning allows for the full value of energy efficiency to be captured. NEBs accrue to the utility system, to energy efficiency project or program participants and to society at large.

How are NEBs used?

- **Regulators and utilities** can utilize NEBs in costeffectiveness analyses (see other side of this factsheet)
- **Policymakers** can use NEBs in order to assess progress towards non-energy policy goals
- Energy efficiency program administrators and ESCOs use NEBs to refine energy efficiency offerings and market them more effectively to customers
- **Customers** consider NEBs when making expenditures on energy efficiency
- Utilities can use NEBs to better account for the value of energy efficiency as a grid resource



Examples of NEBs (by Beneficiary)		
Utility System	Participants	Society and State
 Reduced carrying cost on arrearages Reduced bad debt Reduced shutoffs/ reconnections Fewer notices, calls and collection costs Insurance premium savings Reduce ancillary services costs Improved power quality and reliability Reduced subsidy payments Lower transmission and distribution losses 	 Control over bill and energy decisions Improved indoor air quality Improved health and fewer lost days at work or school Improved comfort Water/wastewater bill savings Improved property values Improved aesthetics/ appearance Fewer shutoffs and reconnections Lower operating and maintenance costs Improved employee productivity and retention Reduced tenant turnover 	 Economic development benefits, including job creation, increase in personal income and state GDP benefits Improved air quality and reduced healthcare costs Fish and wildlife impact mitigation Attracting businesses that demand clean energy/EE (and concomitant economic development benefits) Energy security Preservation of affordable housing

Source: Skumatz Economic Research Associates, 1996, 2004

The Trusted Source on Energy Efficiency



Use of NEBs in Utility Program Cost-Effectiveness Testing

Regulators and utilities typically seek to ensure that energy efficiency programs and portfolios are cost-effective. In doing so, they compare the benefits of energy efficiency programs against the cost of delivering those programs. There are five commonly-used tests in

evaluating the cost-effectiveness of energy efficiency programs.

Approaches to Incorporating NEBs into Cost-Effectiveness Tests

- Adder: Standardized dollar or percentage value added to the benefits of an energy efficiency program.
- Quantification: Inclusion of certain specified NEBs or all NEBs that can be quantified.
- **Hybrid:** Use of an adder to represent certain NEBs, while also allowing for the inclusion of other NEBs based on quantification.

Test	Can this test incorporate NEBs?
Total Resource Cost Test (TRC)	Monetized utility– and participant–perspective NEBs may be considered.
Program Administrator Cost Test (PACT)	No
Participant Cost Test (PCT)	No
Societal Cost Test (SCT)	Yes, all NEBs may be considered.
Rate Impact Measure (RIM)	No

Inclusion of NEBs in Cost-Effectiveness Testing



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