

NORTHEAST ENERGY EFFICIENCY PARTNERSHIPS

# Establishing a Common Platform for Tracking EE's Economic Impacts in the Northeast / Mid-Atlantic Regions

Presented at the 2013 ACEEE National Conference on Energy Efficiency as a Resource

## **Presentation Outline**



- 1. Brief Introduction to NEEP and the Regional EM&V Forum
- 2. Developing the Common Statewide Energy Efficiency Reporting Guidelines and the Regional Energy Efficiency Database (REED) -*How and Why*?
- 3. Reporting Economic Impacts in REED: Cost of Saved Energy and Job Creation Impacts
- 4. Next Steps



# Accelerating energy efficiency since 1996 NEEP Strategies





**APPROACH:** Collaboration, Education, Advocacy

#### Regional EM&V Forum Core Goal: Build a Transparent and Common EM&V Platform (per NECPUC/MACRUC Resolutions)



#### PUCs DEPs SEOs ISO/RTOs PAs RGGI **EE Data** Consistent Sharing **Consistent** Common Savings **EM&V** Methods **EE Reporting** Inputs Forum R&E Projects Forum guidance and **REED - EE results** other EM&V protocols

#### Developing a Common Platform for Reporting Energy Efficiency Program Impacts



2009: Forum Common Statewide EE Reporting Guidelines Project Begins



2013: Regional EE Database (REED) Public Launch



EM&V Forum Jurisdictions: CT, DE, DC, MA, MD, ME, NH, NY, RI, VT

## **Common Reporting Guidelines and REED**



Types of Data included in Common Reporting Guidelines and REED:

- Annual and Lifetime Energy Savings
- Summer and Winter Peak Demand Savings
- Avoided Air Emissions\*
- Program Expenditures
- Job Creation Impacts
- Cost of Saved Energy\*
- Program Funding Sources
- Supporting Information for Reported Energy Efficiency Program Impacts

REED internal calculations, using methodology supported by Forum participants





Available at: <a href="http://www.neep-reed.org">www.neep-reed.org</a>



### Sources of REED Data



Annual EE Program Data reported by PAs to state PUC or other jurisdictional entity (subject to EM&V requirements/review)

> For NY, MD, DE and DC, electric and gas EE data comes directly from state PUC or PA

For New England states, gas EE data comes directly from state PUC or PA For New England States -<u>electric</u> EE program data is also submitted to ISO New England for EE forecasting purposes - ISO sends data file to NEEP for REED



#### How Energy Efficiency Stakeholders Can Use REED Data



Compare program impacts to help identify best practices



Support system & transmission planning, forecasting



Aggregate results to inform regional and national impacts / policies



Incorporate EE data into air quality plans



#### **Cost of Saved Energy**



REED provides both *Lifetime* and *Levelized* Cost of Saved Energy for electric and natural gas programs at the state level:

Lifetime Cost of	Levelized Cost of Saved		
Saved Energy	Energy		
Total Program Expenses / Lifetime kWh or Therm Savings	A more complex calculation that provides an annualized value of efficiency. Often used to compare efficiency with supply-side resources.		

Cost of Saved Energy (2)



# For *formal state reporting purposes (e.g. PUC / legislative reports)*,

- States report either levelized or lifetime cost.
- Where levelized cost is reported, state uses its own discount rate, typically based on either long term Treasury bond rates, or a utility's weighted average cost of capital.

For <u>*REED*</u>'s levelized cost calculation, all states agreed to a standard calculation using a consistent discount rate of 2.46% based on 30-year Treasury bond rates.

#### Cost of Saved Energy (3)

- EM&V Forum Steering Committee supports greater consistency in cost of saved energy calculations -Forum to develop <u>Cost of Saved</u> <u>Energy Guidelines</u> in 2014.
- Effort will refer to ACEEE 2009
   Saving Energy Cost Effectively
   report, as well as current Forum
   project on Cost Effectiveness
   Testing practices, including review
   of discount rates used in each
   state.





## Levelized Cost of Saved Energy by State Range for electric = 2.5 - 4.3 cents/kWh





New York is not included, as it did not submit lifetime savings data to REED

## **Job Creation Impacts**



 Reporting job impacts from EE programs is important to show the state and regional economic benefits of energy efficiency.



• REED captures:

Direct Jobs	Actual jobs resulting from EE investment.				
	Jobs from "upstream" changes in business among firms				
Indirect Jobs	supplying goods/services to the industries directly involved				
	in the EE program.				
	Jobs due to EE program spending less jobs that would have				
Net Jobs	been created had the ratepayers kept their \$ and spent it				
	on a standard sets of goods/services.				

### **State Job Impacts Tracking / Studies**



- REED states that did not provide job impacts to REED either did not have available job impact studies/data OR opted not to include the data.
- States that track job impacts in some manner but did not report it in REED include: CT, ME, MD, MA, NY.
- Many different approaches available and used across states; REMI modeling; EPA methodology; ACEEE calculator (ARRA).

## Job Creation Impacts - Rhode Island & Vermont



Job Impacts Table								
			Gross		Net			
Region	State	Program Type	Direct	Indirect				
ISO-NE Rhode Islan Vermont	Rhodelsland	C&I	0	0	139			
		Residential	0	0	196			
	Vermont	C&I	0	0	1,161			
		Residential	0	0	774			
In accessing the REED and printing reports, the user agrees to NEEP's current full								

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**Rhode Island:** REMI model: multiplied implementation expenses by multipliers from Environment Northeast report: Energy Efficiency Engine of Economic Growth, 2009

**Vermont:** REMI model: multiplied implementation expenses by multipliers from Optimal Energy report: Economic Impacts of Energy Efficiency Investments in Vermont, 2011

#### **Job Creation Impacts**





- Forum considered developing a common methodology for states to use - deemed too challenging.
- Other option is potential project on EM&V Forum 2014 Project Agenda = <u>Regional Job Impacts Study</u>
- Study would employ one methodology (selected with regional input or consensus) to develop current estimates of job impacts at the regional and state levels.

### **REED Next Steps**



#### Remainder of 2013:

- REED Program Year 2011 Annual Report issued
- Additional features/reports on REED website
- Program Year 2012 data publicly available on REED website

#### 2014:

- Collect Program Year 2013 data
- Issue REED Program Year 2012 Annual Report
- Additional modifications based on user feedback

## Visit REED at <u>www.reed-neep.org</u>!



# Thank you!

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