U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Common EE reporting guidelines:
DOE perspective and context

Kathleen Hogan
Deputy Assistant Secretary for Energy Efficiency
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Outline

- Importance of common reporting
- DOE approach to EM&V
- State Energy Efficiency Action Network EM&V
- Role of NEEP guidelines

Importance of common reporting

- Increased emphasis on efficiency means increased emphasis on reported data
- Common data assumptions and formats mean better understanding of our programs and their successes
- Accurate data is the basis for evaluation of programs, ultimately leading to better design of programs
- Uniform reporting is essential for state wide or regional load forecasting if there are multiple utilities in a state
- Common efficiency reporting is key to a Regional/National approach to energy policy/planning.

DOE Efficiency EM&V

- Philosophy
  - Collect timely and accurate data while minimizing burden to grant recipients
  - Use data to measure progress of programs and inform future program designs
  - Build EM&V capacity nationwide
  - Explore innovative EM&V methods

- Utility Bills
  - In an ideal world, we would use utility bill data to analyze the actual results of all Recovery Act projects
  - Base savings/results on measured data to provide a solid foundation for program (and other planning)
  - Waiting on OMB approval of utility bill form to roll out though SEP and EECBG

DOE Efficiency EM&V

- Weatherization Assistance Program
  - $5 billion Recovery Act: expediting weatherization of low-income homes
  - Retrospective evaluations of tens of thousands of homes
    - 2007-2008 base budget program
    - 2009-2011 Recovery Act program
  - Random control trial project with UC Berkeley

- State Energy Program
  - $3.1 billion Recovery Act: expanding State Energy Program activities
  - Retrospective evaluation sampling 120/1500 activities from 2009-2010, three tiers of rigor

DOE Efficiency EM&V

- Energy Efficiency and Conservation Block Grants
  - $3.2 billion Recovery Act: More than 2300 states, local governments, Indian tribes, and U.S. territories improving energy efficiency and installing renewable energy systems
  - Provided reporting guidelines, online reporting system, deemed savings calculator
  - Recommend grantees use Portfolio Manger for retrofits

- Better Buildings
  - $486 million Recovery Act: 55 states, local governments, and organizations are ramping-up energy efficiency building retrofits in their communities
  - Established reporting system
  - Program evaluation will provide insights on unique and innovative delivery designs providing a foundation for effective retrofit programs nationally

DOE Efficiency EM&V: EECBG

Activity Category	$ Allocation %
Energy Efficiency Retrofits	36.2%
Financial Incentive Program	15.3%
Buildings and Facilities	10.9%
Lighting	6.2%
Codes and Inspections	0.7%
Onsite Renewable Technology	5.8%
Transportation (a portion is street lights)	4.0%
Energy Distribution	1.5%
Material Conservation Program	1.1%
Capture of Methane	1.0%

70% of EECBG funding, using Portfolio Manager

DOE is working on best practice reporting guidelines

SEE Action EM&V

- Goals
  - Improve stakeholders' ability to accurately and cost-effectively estimate, document, and report efficiency savings
  - **Improve the comparability of reported savings across programs, sectors, portfolios and states**
  - Improve current methods and increase adoption of best practices
  - Explore new EM&V approaches
  - Increase the number of EM&V practitioners and their level of expertise and experience
- Current Projects
  - Test a standardized form for reporting savings at the portfolio and sector level on a voluntary basis in five states
  - Exploration of national protocols/standards
  - Begin development of a deemed savings database

SEEAction.energy.gov
carla.frisch@ee.doe.gov & michael.li@hq.doe.gov

SEE Action
STATE ENERGY EFFICIENCY ACTION NETWORK

SEE Action EM&V: One Page Reporting Form

- Use a standard, one page form to collect four types of program performance data at the portfolio and sector level:
  - Annual Savings (e.g., Energy and Peak Demand)
  - Lifecycle Savings
  - Program Participants
  - Program Expenditures
- Work with approximately 10 Program Administrators to test form and voluntarily fill it out
- Develop strategy for achieving near universal use of the form

SEE Action
STATE ENERGY EFFICIENCY ACTION NETWORK

Role of NEEP guidelines

- We commend NEEP for completion of the common reporting guidelines
- We encourage Forum jurisdictions to adopt the Guidelines and make reports available
- We believe that statewide reporting should include all efficiency activities in states

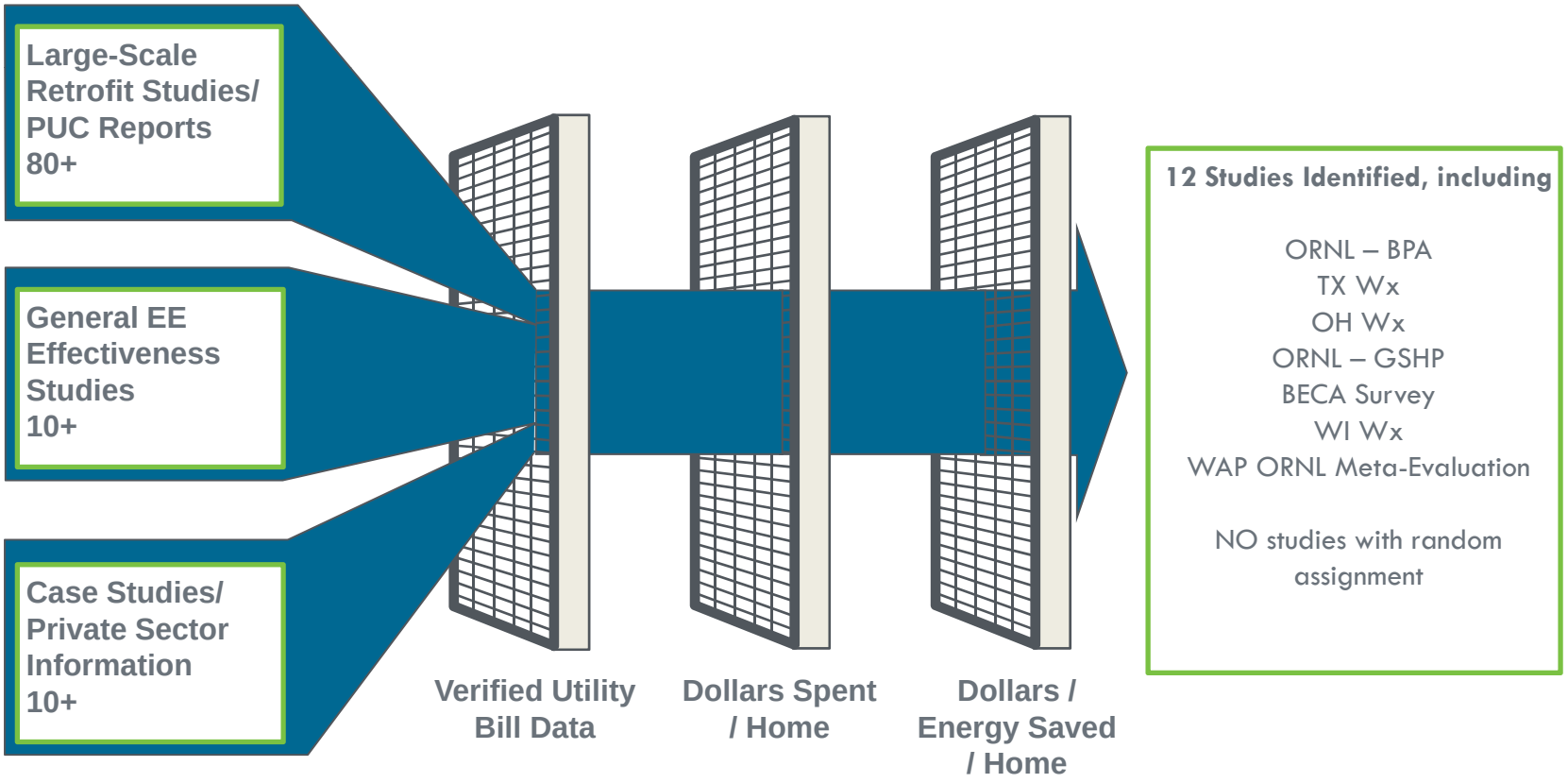
Thank You!

Questions/Comments?

Appendix

Recovery Act Guidance

- Weatherization and Intergovernmental general guidance: http://www1.eere.energy.gov/wip/guidance.html
- EECBG
  - Program guidance on reporting required: http://www1.eere.energy.gov/wip/pdfs/eecbg_reporting_program_guidance_10_007b.pdf
  - Program guidance on process metrics to use: http://www1.eere.energy.gov/wip/pdfs/eecbg_10_07b_sep__10_006a_attachment1_process_metric_list.pdf
  - Deemed savings calculator: http://www1.eere.energy.gov/wip/guidance.html under Recovery Act Benefits Calculator
- SEP
  - Program guidance on reporting required: http://www1.eere.energy.gov/wip/pdfs/sep_10-006a_arra_reporting_guidance.pdf
  - Deemed savings calculator: http://www1.eere.energy.gov/wip/guidance.html under Recovery Act Benefits Calculator

Need for better EM&V

- **Few robust studies on residential retrofits – CEA meeting October 2009 underscored need:**
  - Utility billing data (rather than deemed estimates)
  - Statistically significant sample sizes (versus historically very small studies)
  - Control groups (where possible)
  - Random Sample
  - Sampling Frame
- **Cost often drives analysis from statistical towards engineering**