



NORTHEAST ENERGY EFFICIENCY PARTNERSHIPS

Regional Evaluation, Measurement & Verification Forum

ANNUAL PUBLIC MEETING

December 12, 2013

Welcome to New Hampshire!



nhsaves
energy solutions for new hampshire



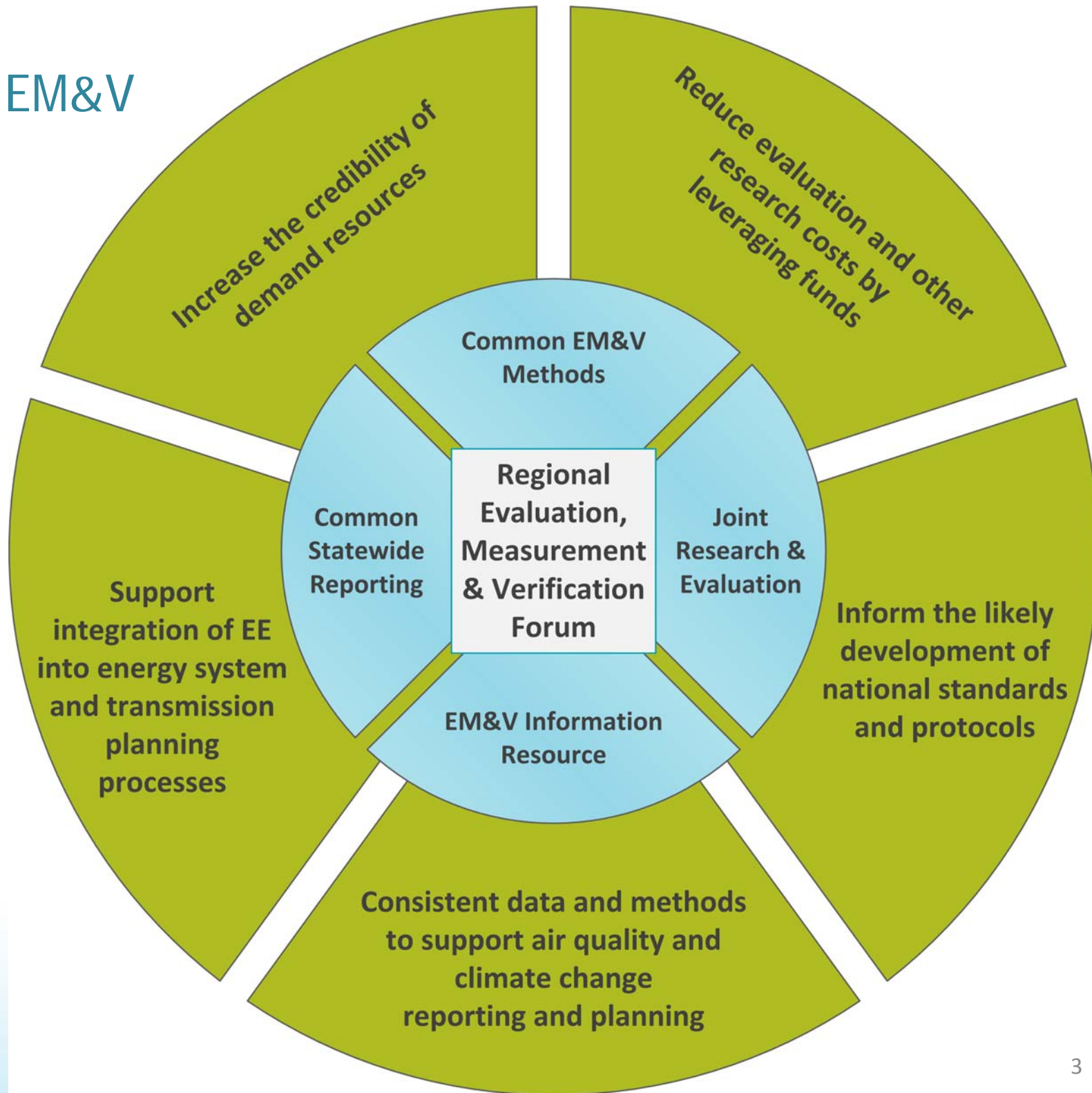
REGIONAL EM&V FORUM

A Quick Overview



- ❑ **Launched in 2009:** supported by NECPUC and MACRUC resolutions
- ❑ **Involves 10 Jurisdictions:** New England states (except for Maine in 2013-14), New York, Maryland, Delaware, District of Columbia, with New Jersey involved in 2009
- ❑ **Steering Committee:** PUC and SEO commissioners, and air regulator representatives
- ❑ **Project Committees (and subcommittees):** PUC staff and air quality agency staff, SEOs, program administrators, ISO/RTO staff, US DOE, US EPA, evaluation experts

REGIONAL EM&V FORUM: GOALS AND SCOPE



FORUM LEADERSHIP (Fall 2013)



Steering Committee Co-chairs:
Rich Sedano, RAP and NEEP Board Member
Commissioner Robert Scott, NH PUC

Project Committee Co-Chairs

Monica Kachru
(Northeast Utilities)

Jeremy Newberger
(National Grid)

Tom Belair
(Public Service NH) /
Lisa Glover (Unitil)

Dave Pirtle
(PEPCO/PHI)

Pierre van der Merwe
(DC SEU)

Barry Murphy
(VT Dept Public
Service)

Crissy Godfrey
(MD Public Svc. Comm)

Victoria Engel-
Fowles (NYSERDA)

STEERING COMMITTEE MEMBERS

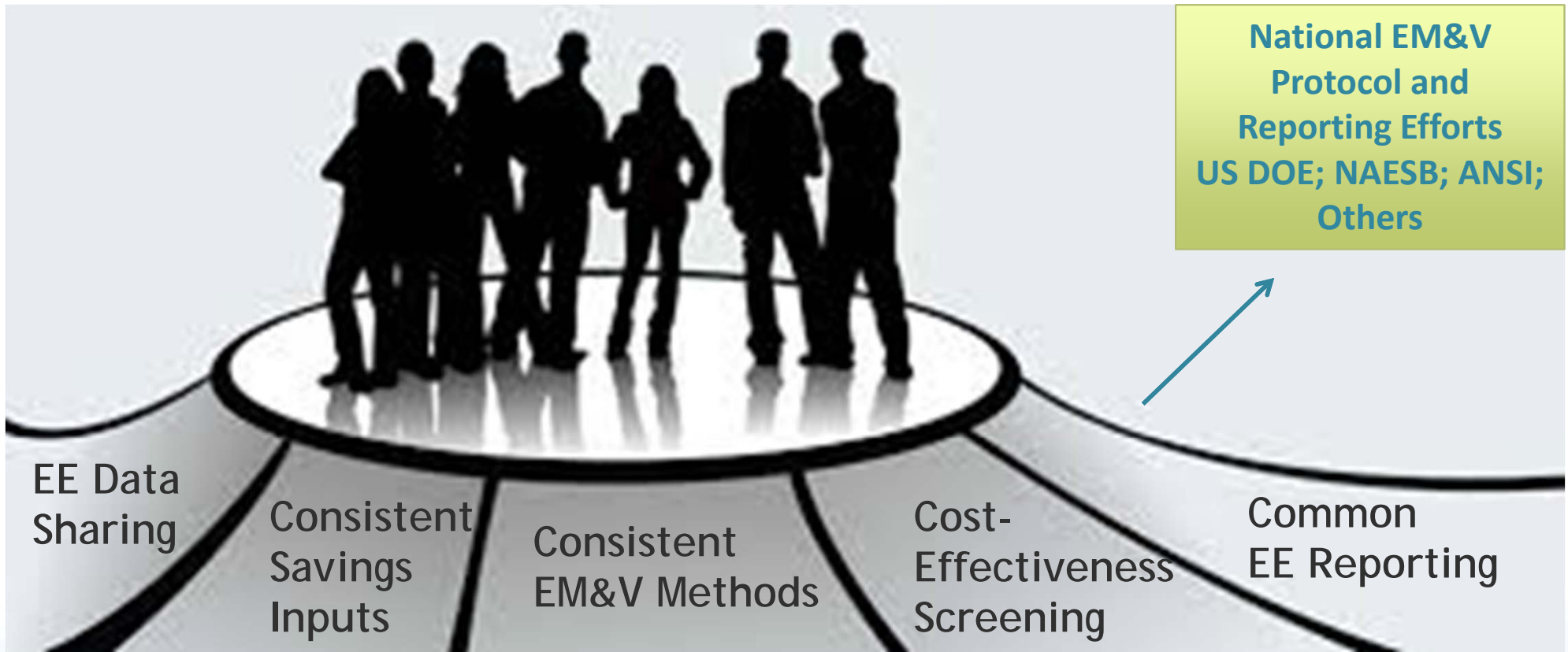
State	Name	Agency/Organization
	Steering Committee Co-Chairs	
	Rich Sedano	Regulatory Assistance Project, NEEP Board Member
NH	Commissioner Robert Scott	NH Public Utilities Commission
CT	Diane Duva (Director of Energy Demand)	CT Dept of Energy & Environ. Protection
DE	Director - TBD Robert Underwood (Staff) Jessica Quinn (Staff)	DE Dept of Natural Resources & Environmental Control
DC	Keith Anderson, Director Lance Loncke (staff)	District Dept of the Environment
ME	Commissioner David Littell Denis Bergeron (staff)	ME Public Utilities Commission
MD	Commissioner Speakes-Backman <i>(invited)</i> Marissa Paslick, Crissy Godfrey (staff) Kevin Lucas (Director) Walt Auburn	MD Public Service Comm. MD Energy Administration
MA	Commissioner Jolette Westbrook Benjamin Davis (staff) Commissioner Mark Sylvia Tina Halfpenny (staff)	MA Dept Public Utilities MA Dept of Energy Resources
NY	Colleen Gerwitz, Director Bill Saxonis (staff)	NY Department of Public Service
RI	Commissioner Paul Roberti Nicholas Ucci (staff)	RI Public Utilities Commission
VT	Commissioner James Volz Mary Jo Krolewski (staff)	VT Public Service Board
Air	Nancy Seidman Assistant Commissioner	MA Dept of Environmental Protection
Air	Arthur Marin Executive Director	NE States for Coordinated Air Use Mgmt (NESCAUM)
	Commissioner Elizabeth Randall Kristina Miller (staff)	NJ Board of Public Utilities <i>(observer)</i>



FORUM OVERALL GOAL: Build a Transparent and Common EM&V Platform to Support a Range of State and Regional Policies/Markets *(per NECPUC/MACRUC Resolutions)*



PUCs SEOs DEPs
 PAs RGGI ISO/RTOs

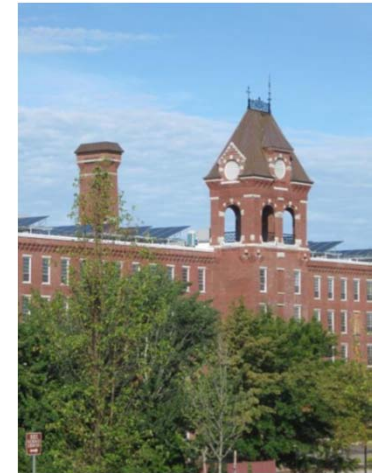


Forum R&E Projects

Forum guidance and other EM&V protocols

REED

New Hampshire Utility EE (CORE) Programs



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energy solutions for new hampshire

RESIDENTIAL PROGRAMS



- Energy Star Homes Program
- Energy Star Appliance Program (now includes heating/cooling/hot water systems...mini split heat pumps)
- Energy Star Lighting Program
- Home Performance with Energy Star (Weatherization)
- Low Income Home Energy Assistance Program
- Geothermal Heat Pump Programs
- On Bill for home weatherization

BUSINESS & MUNICIPAL PROGRAMS



- Small Business Program (New, Retrofit, Direct Install)
- Large Business Program (New, Retrofit)
- Municipal EE Program (New, Retrofit, Direct Install, Heating/Cooling/Hot Water Systems)
- Municipal SmartStart On Bill Financing via a Revolving Loan Fund



Education



- K-12 Programs...Savings Through Energy Management (STEM), Lights for Learning
- Residential Energy Code Training + Beyond Code, Energy Code Collaborative
- Retro-commissioning, LED, Air Compressor Seminars
- Building Operator Certification Classes
- Commercial Energy Auditing Classes, Utilities & NH Experts

State Government Initiatives



- **NH Climate Action Plan**
- **Energy Efficiency & Sustainable Energy (EESE) Board**
- **New Hampshire Energy Efficiency Resource Standard (EERS) Study**
- **State Energy Plan**
- **25 x '25 Renewable Energy Initiative**



Energy Efficiency – What's at Stake?



Electricity usage in New England/NH

New England: 120 B kWh

(120,496,000,000) / NH = 10.9 B kWh

Amount spent by ratepayers for electricity

New England: \$16.9B

(\$16,893,500,000) / NH = \$1.9B

Potential Direct Savings

2002-2012



- **The NH programs have saved 9.4 billion lifetime kilowatt-hours – enough energy to power the city of Portsmouth for more than 40 years! (enough energy to power all of NH for 11 months)**
- **Saving 9.4 billion kilowatt-hours is equivalent to saving \$1.3 billion**
- **NH CORE Programs yield \$7 for every program dollar invested**

Impact of EE Forecast in Regional Transmission Planning



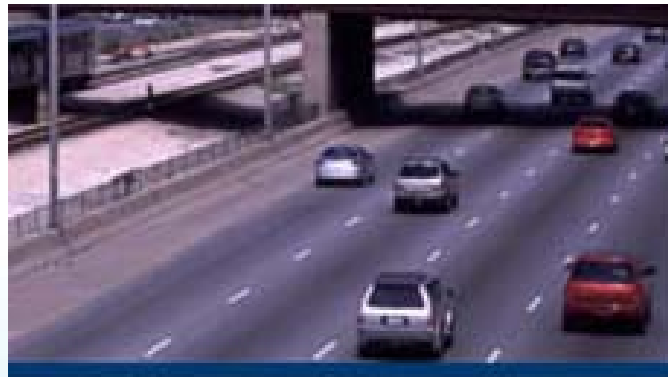
Impact of EE Forecast on ISO-NE 10 year needs assessment for Vermont and New Hampshire

- Deferring/cancelling these upgrades saves the region over \$260 million

Emissions Reductions



NH CORE programs reduced emissions by 5.2 million tons of CO₂, 11,600 tons of SO₂, and 3,200 tons of NO_x— like taking 1.1 million cars off the road for a year



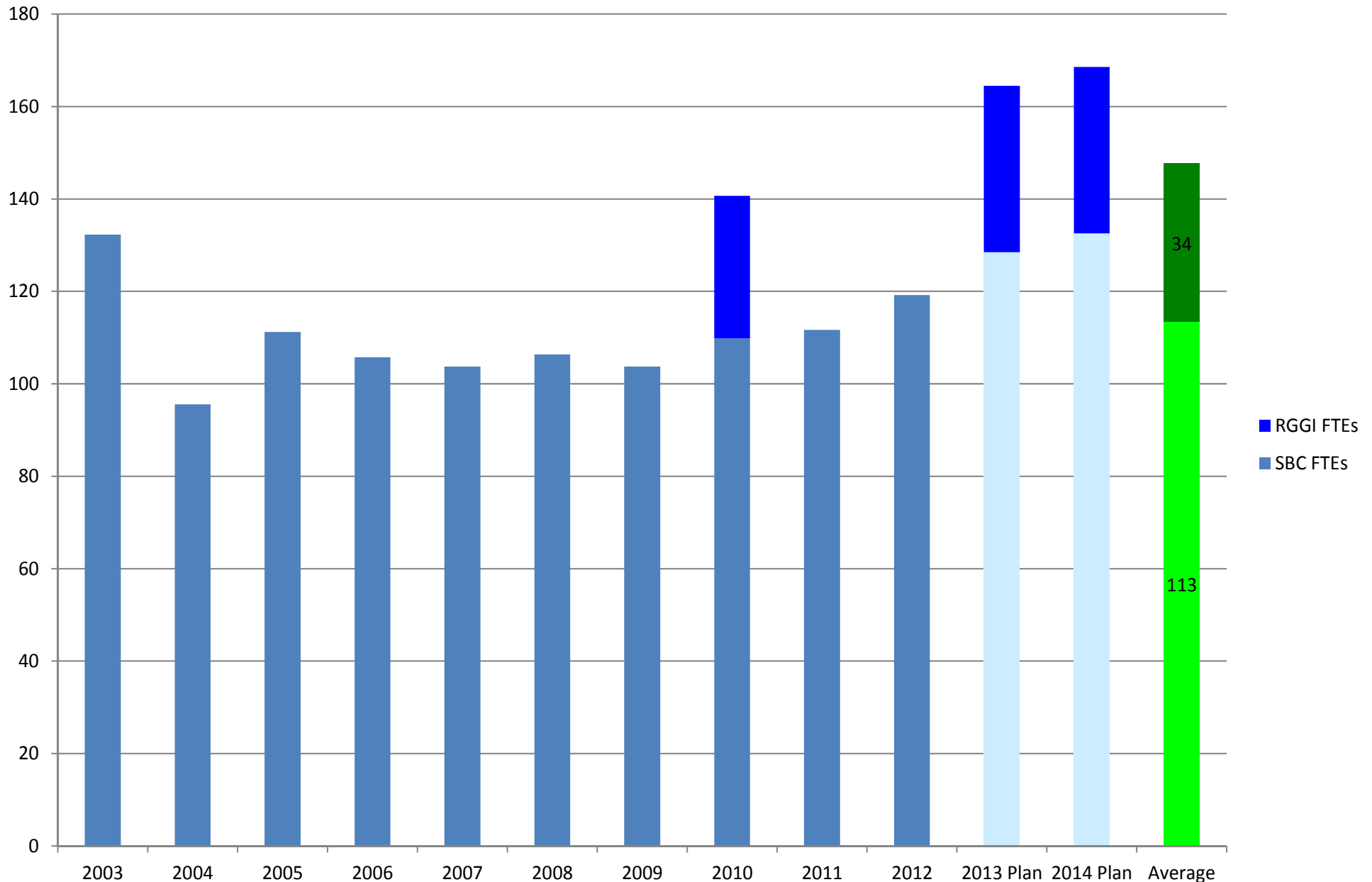
ANNUAL IMPACT ON JOBS



NH CORE Energy Efficiency Programs

FTE Jobs each year (based on 6 FTEs* per \$1M spent on Energy Efficiency Projects)

* Source: The New Hampshire Greenhouse Gas Emissions Reduction Fund report by UNH (Year 2), pg 15.



Recent Events

- **Generation and DR retiring in NE**
 - 3400 MW in next 5 years
 - 8300 MW by 2020

- **New environmental regulation**
 - **New Source Performance Standards for existing and new power plants**



Evaluation, Measurement and Verification (EM&V)



- **Importance of feedback loop for**
 - ✓ **Energy regulators**
 - ✓ **Utility program administrators**
 - ✓ **Environmental regulators**
 - ✓ **Rate payers**

Evaluation, Measurement and Verification (EM&V)



- **Reviews/Validates reported energy savings. Provides meaningful input to savings calculations on a going forward basis.**
- **Ensures program efficiency – allows data for program corrections**
- **Allows consistent estimation of EE benefits**
- **Educates as to impacts**
- **Helps foster innovation and share best practices based on evaluators experience with other programs.**

Evaluation, Measurement and Verification (EM&V)



- **Scrutiny on rate payer dollars** – ensuring continued public support
 - Good stewards of ratepayer moneys, public good and environment

TODAY'S AGENDA

What will we learn about....



9-10am Forum Highlights - 2013 and What's Next?

10-10:30am Break

10:30-12:00 Shifting Sands in Cost-Effectiveness Testing?

12noon-1pm Lunch

1:00-2:15pm What's In the Air - A Budding Relationship?

2:15-2:45pm Break

2:45-4:00pm Cracking the Code on Net Savings

4:00-4:15pm - Closing Comments