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Rhode Island Energy Code Technical Support





Nick Corsetti National Grid January 16, 2013





- Why is National Grid investing in energy code compliance enhancement in Rhode Island?
- The run-down on *Energy Code Technical Support*
- EM&V....including the attribution rate
- Next steps and best practices

Why is National Grid involved?

- Only part of a larger Codes & Standards Initiative
 - Code compliance: Energy Code Technical Support
 - Base code advocacy
 - Appliance standards advocacy
 - Stretch code development support
- Increasing program baselines
 - New construction
 - Appliances and products
- Poor energy code compliance rates
- New strategy for future portfolio savings
- It's the right thing to do!
 - Enablers <u>not</u> enforcers

Initial development

- Multi-year planning process (2011-2012)
 - Collaboration amongst several stakeholder groups
- RI and MA Code compliance baseline studies (2012)
 - On-site evaluations and surveys
 - Rhode Island: 70% commercial, 57% residential
- Energy savings modeling (2012-2013)
 - Translate improvement in compliance into gross technical potential energy savings
 - Couple energy simulations with projections of future construction activity
- Regulatory and RI PUC approval in December 2012
 - Buy-in from advisory council (EERMC) and the State
 - Deemed savings approved and claimed for 2013, ramping up over time (4-5 years)

Implementation

- Vendor team hired in April 2013 strong Rhode Island presence
- Energy Code Technical Support includes:
 - Focus groups proactive outreach to important stakeholders for initial input
 - Trainings (code officials, builders, architects, etc.)
 - Energy code technical assistance circuit riders
 - Process trainings for 3rd party energy specialists
 - Code compliance documentation tools
- Kicked-off in October of 2013 (coincides with 2012 IECC enforcement)
- Establishment of Working Groups (Implementation and Evaluation)
- Developed website for all stakeholders → <u>www.ngrid.com/rienergycode</u>

Highlights from the field!

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Postcards



Commercial training



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National Grid's Energy Code Technical Support provides Rhode isance code officials, builders, subcontractors, and design professionals with free building energy code compliance training technical support, and documentation materials. RI energy code technical support Trainings and events





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Snapshot of the website



Residential training

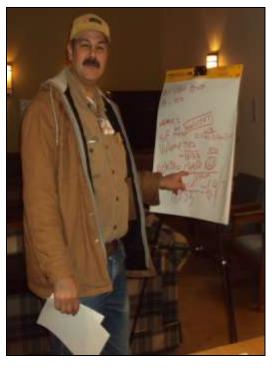
More highlights from the field!

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Jack Leyden RI Building Code Commissioner



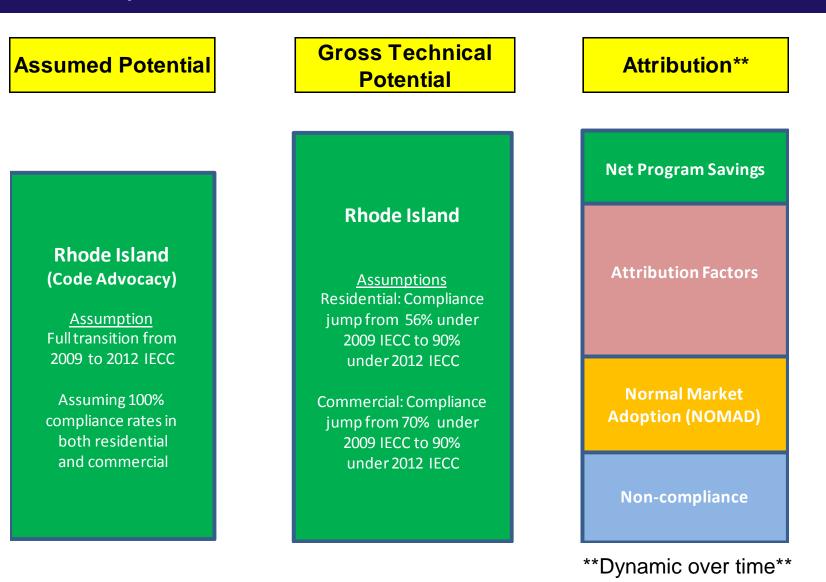


In-field and hands-on trainings! It's for code officials too!

How do we claim savings?

- Development of a comprehensive savings and attribution methodology
 - Evaluated by a 3rd party
 - Gas and electric savings estimated from 2014 2018
- Program Checklist
 - Document and track all program-related activities
 - Ensures continuous evaluation
 - Prompts check-in meetings with the Evaluation Working Group
- Claimed savings subject to completion of Program Checklist
- Conduct second baseline study to determine effect of *Energy Code Technical* Support on code compliance rates

High-level savings flow chart (not to scale)

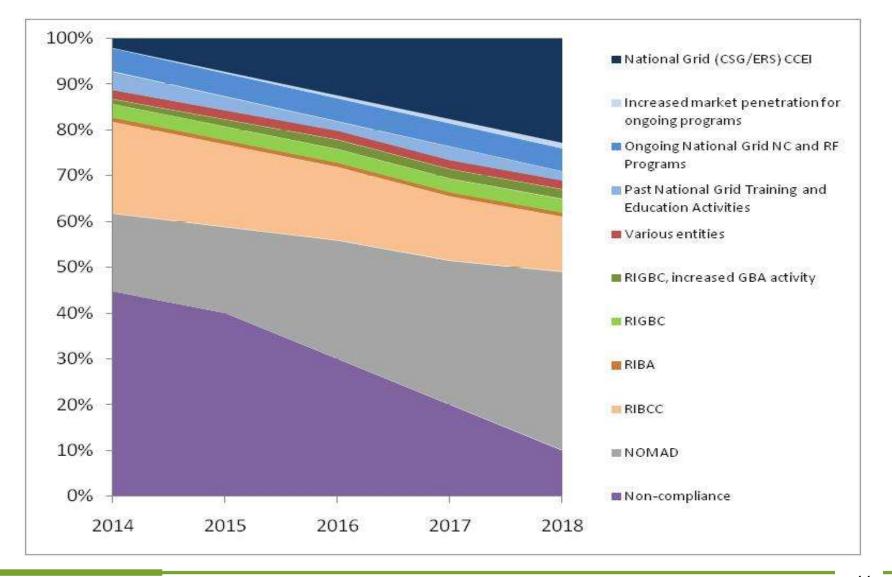


The ol' attribution rate

- Attribution = % of compliance rate that is because of *Energy Code Technical Support*
 - It changes every year!
- Measure quantitative effect of Energy Code Technical Support against other influences:
 - RI Building Code Commission (RIBCC)
 - RI Builders Association (RIBA)
 - Existing National Grid New Construction and Retrofit Programs
 - RI Green Building Council (RIGBC)
 - Other entities and organizations
 - Normal market adoption (NOMAD)
 - Non-compliance
- How?
 - Interviews with stakeholders
 - Analysis of past, present, and future code-related outreach and activities

Commercial attribution chart

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More attribution....and the results nationalgrid

• Attribution is not the final step!



- Increasing attribution rates and max potential improvements over initiative:
 - Residential attribution: 2% to 24%
 - Residential max potential improvement: 4.5% to 55%
 - Commercial attribution: 2% to 23%
 - Commercial max potential improvement: 4% to 47%
- 5-year savings
 - Electric: 105,000 MWh → 66% of National Grid's entire 2013 EE portfolio goal
 - Gas: 275,000 MMBtu → 95% of National Grid's entire 2013 EE portfolio goal

Takeaways and wrap-up

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Next steps

- Continue to refine savings methodology
- Define and execute 2014 Program Checklist
- Continuous evaluation and program improvement
- Best practices
 - Stakeholder collaboration
 - Involvement of RI Building Code Commission was key
 - Implementation and Evaluation Working Groups
- Baseline studies are critical!
 - Expensive but necessary for a robust savings methodology
- Integrate as part of larger Codes & Standards Initiative
 - Base code advocacy, stretch code development support, and appliance standards
 - Increasing importance to National Grid's savings portfolio



Thank you!

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