Enhancing Energy Code Compliance through Partnerships with Utilities

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ABSTRACT

As states and local jurisdictions focus their attention on improving compliance of building energy codes, they are increasingly collaborating with energy utilities to achieve this goal. Some governments have created partnerships with their utilities to couple energy efficiency programs that will enhance code compliance. These partnerships are mutually beneficial, allowing governments to receive financial support and technical assistance for improving code compliance while allowing utilities to claim the energy savings that arise from higher compliance. This paper will discuss the rationale behind these budding partnerships; articulate a framework for how to achieve the mutual goals of utilities and the energy code community. Examples from Minnesota, Massachusetts, Illinois and California will highlight how these states are currently leading the development and implementation of energy code programs geared towards improving compliance with the energy code. This paper will include details on these efforts and discuss the obstacles as well as the keys to success for these types of programs.

Introduction

In recent years, activity around utility energy efficiency programs and building energy codes has exploded. In regions such as the Midwest, several states have newly adopted energy codes (in most cases, either the 2009 or 2012 International Energy Conservation Code (IECC)). Concurrently, several states in the region have legislatively adopted new energy efficiency resource standards (EERS). These new EERS requirements often have very aggressive efficiency goals that will require utilities subject to these standards (typically investor-owned utilities) to pursue non-traditional means of generating energy efficiency such as implementing deeper whole-home retrofit programs or training of commercial building operators to claim the savings from better building performance.

Adoption of an energy code will also be another category that utilities could use to claim savings to complete their EERS goals. However, adoption of updated building energy codes represents only a first step. To achieve the full benefits of new building energy codes, buildings must fully comply with the code, and to ensure compliance there must be effective enforcement. These two aspects are achieved only with comprehensive, quality training of all the stakeholders of the permitting process; simple and complete plan review and inspection procedures; and proper evaluation of compliance. All of the above steps require funding, which can be lacking in many states and municipalities. Moreover, the monetary shortfall has recently become even more severe for municipalities as the two main sources of funds for building departments – building fees and state aid – have declined due to the economic downturn.

There is an opportunity to reconcile the needs of both utility efficiency programs and state code compliance requirements by seeking regulatory approval for utility programs that

increase code compliance while allowing utilities to claim code-based savings toward their efficiency requirements.

This paper presents an overview of the potential savings utilities could generate from building energy code compliance. It will discuss the reasons behind utilities' reluctance to support more efficient building codes, in addition to the relationships that exist and could be expanded between utility efficiency programs. Further, this paper will include discussion regarding the implementation of compliance programs surrounding building energy codes. A basic framework for developing these utility/code programs will be outlined, along with the necessary next steps to take advantage of this opportunity. Because of the program and code activity described above, this paper will focus on developing a program framework for Midwest states (recognizing that the framework can easily be transferred to other regions). In developing the framework, however, the paper will draw from work across the country. Examples of work currently underway in California, Massachusetts, Minnesota and Illinois, as well as completed in Washington, will illustrate how these policies are currently being developed or implemented.

Background

Reasons for Developing Utility Code Programs

As of 2011, eleven states in the Midwest have rate-payer funded, energy efficiency programs; seven states have Energy Efficiency Resources Standards (EERS) in place; and the remaining states have energy efficiency programs through regulatory action. Adoption of an EERS typically requires a utility to meet a percentage of its load requirements (electricity, natural gas, or both) through energy efficiency program(s). Typically this amount is between 1.0 and 2.0%[1] (***Table 1***).

Table 1. Midwest State Energy Efficiency Resource Standard Requirements[2]

	EERS Requirements	
State	**Electricity**	**Natural Gas**
Illinois	2.0% by 2015	1.5% by 2017
Indiana	2.0% by 2019	
Iowa[3]	1.4% currently	1.0% currently
Michigan	1.0% by 2012	0.5% by 2012
Minnesota	1.5% currently	1.5% currently
Ohio	2.0% by 2019	
Wisconsin[4]	0.63% currently	0.48% currently

[1] These requirements will apply to both natural gas and electricity.

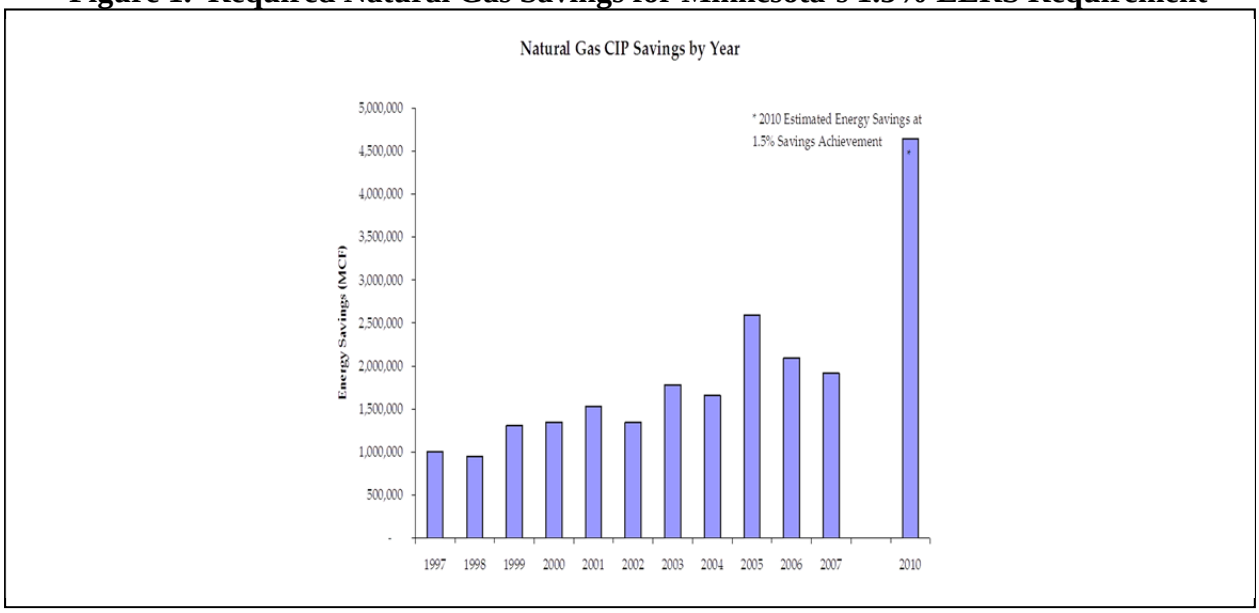
[2] The values are based on research by the Midwest Energy Efficiency Alliance.

[3] Each Iowa utility files its energy efficiency goal with the Iowa Utilities Board (IUB). The goals are approved on a case to case basis. Once a goal for the utility is approved, the goal is binding on the utility. The above figures represent the overall level of energy efficiency savings currently being achieved in Iowa as estimated by the IUB.

[4] An EEPS was ordered by the Wisconsin Public Service Commission and approved legislatively by the Joint Finance Committee (JFC) in late 2010. Subsequently, during the 2011 session, the JFC overturned the action of their predecessor committee and the state returned to the pre-2010 funding based mechanism. The currently achieved levels come from the PSC of Wisconsin's Quadrennial Review (Docket 5-GF-191).

These requirements will increase over time and will require investments in new programs to find savings over time. For example, ***Figure 1*** shows the kilowatt-hour (kWh) and thousand cubic feet of natural gas (MCF) savings necessary to meet the requirements in Minnesota Conservation Improvement Plan (CIP). Based on the results of previous years' programs, there is some concern that typical energy efficiency program activities may not generate sufficient energy savings to meet the higher requirements.

Figure 1. Required Natural Gas Savings for Minnesota's 1.5% EERS Requirement



Source: Minnesota Office of Energy Security

In recent time, changes to the energy code adoption have also occurred. Since 2009, five Midwest states have adopted the 2009 IECC (residential), ASHRAE 90.1-2007 (commercial) or both[5]. These updates represent a huge potential for energy savings for new construction and major renovations ***(Table 2***). The 2015 savings are equivalent to the energy use of over 500,000 Midwest households[6].

[5] The States who have adopted the 2009 IECC include Iowa, Illinois, Wisconsin, Michigan and Indiana. Within the next year, Ohio and Minnesota will likely join the list. Importantly, Minnesota and Illinois will be adopting the 2012 IECC and ASHRAE 90.1-2010; adoptions that represent even greater energy savings potential.

[6] See data from 2005 Residential Energy Consumption Survey (RECS): www.eia.gov/emeu/recs/recs2005/c&e/detailed_tables2005c&e.html

Table 2. Estimated Annual Savings from Statewide Adoption of the 2009 IECC[7].

	Estimated Savings by 2015 (trillion Btus)		Estimated Annual Savings by 2020 (trillion Btus)	
	Residential	**Commercial**	**Residential**	**Commercial**
Illinois	6.0	3.6	11.8	7.3
Indiana	5.0	3.8	9.9	7.8
Iowa	1.1	0.8	2.2	1.6
Kansas	2.4	2.5	4.8	5.1
Michigan	2.5	4.0	4.8	8.3
Minnesota	3.4	4.1	6.7	8.5
Missouri	3.1	4.5	6.1	9.3
Nebraska	0.9	1.4	1.7	2.9
North Dakota	0.6	0.7	1.3	1.4
Ohio	3.4	1.9	6.8	3.9
South Dakota	0.9	1.7	0.9	1.8
Wisconsin	2.2	1.5	4.3	3.1
Subtotal by Class	*31.50*	*30.50*	*61.30*	*61.00*
Total Savings (All)	**61.5**		**122.3**	

These projected savings, however, assume full compliance with the energy code. Despite a significant amount of resources devoted to the issue from code officials, practitioners and code advocates, compliance with the energy code remains low. The few studies on the subject indicate that, on average, **compliance rates range from about 16–70%** (see summary of recent studies in Table 3). Even in states with a strong enforcement infrastructure such as California, non-compliance rates vary from 28–100% for specific provisions (Khawajah 2007). Many reasons exist for this situation: local building departments and state code offices are chronically underfunded; the energy code changes much more rapidly (especially lately) than other codes, making it difficult for both practitioners and officials to keep up with the latest requirements; and building officials rightly focus on quality of life and safety codes first.

Table 3. Code Compliance Rates Achieved by Selected States

State	Code	Residential Compliance Rate	Source
Maine	No statewide code at the time	16%	(ME PUC 2008)
Massachusetts	1998 MA Residential Code	46.4% for Envelope 20% for Duct Sealing	(XEnergy 2001)
Vermont	2005 Vermont Residential Building Energy Code	70%[8]	(NMR 2009)
Iowa	2009 IECC	73%	(Ruffcorn 2011)
Illinois	2009 IECC	77%	(APEC 2011)

[7] Code calculator can be found at http://www.bcap-ocean.org/sites/default/files/Code%20Cost%20Calculator%20Midwest_0.pdf. Savings are based on adoption of codes starting in January 2011.

[8] The sample included about 30% of homes that had received an Energy Star rating and were assumed to comply with the code. This is not necessarily an accurate assumption as previous studies in Connecticut have shown that Energy Star homes don't always comply with code; therefore the 70% compliance rate is probably high.

A policy opportunity exists at the intersection of these two trends in energy efficiency policy. Utilities can assist in state and local efforts to improve code compliance, applying the savings due to their efforts towards their EERS goals.

Utility Reluctance in Supporting Efficient Energy Codes

Utilities can and should play an important role in the improvement of energy codes since many utilities already manage energy efficiency programs related to residential and commercial buildings. Within their past involvement, they have data and proven experience with respect to the construction, operation, and energy consumption of high-efficiency buildings. Through ratepayer funds collected to implement energy efficiency programs, utilities could provide both the funds and the infrastructure to help with code implementation and ultimately compliance.

Despite their ability to support stronger compliance with the code or to provide an avenue for helping prepare for future code cycles, investor-owned utilities have historically refrained from supporting these or other energy codes efforts. Many existing rate-payer funded efficiency programs focus on improving the energy efficiency of newly constructed homes and commercial buildings beyond the baseline energy code. Utilities receive credit for the incremental difference between the energy use of the participating buildings compared to code-compliant ones. As codes become more stringent, the incremental savings decrease and utilities face the choice of either accepting a smaller increment or amending the existing program to further raise the energy efficiency targets. The former course increases the difficulty of meeting program goals cost effectively; the latter requires additional time and expense while increasing the difficulty for utilities to establish long-term targets.

A second reason for utility reluctance revolves around the fact that utilities do not want to be seen as the “codes police”. Utilities do not want to be involved or even perceived to be involved in enforcing the code. Work aimed at enhancing codes compliance makes utility executives nervous.

Finally, utilities are accustom to running programs with well-defined and relatively straightforward activities (rebate programs), as well as evaluation methodologies. Enhancing code compliance, as yet, has not reached this stage. Significant uncertainty still remains around this concept. Energy utilities, which have to defend their plans to public utility commissions and other skeptical stakeholders, may not yet be ready to plunge ahead until there is greater certainty.

Ultimately, the solution involves developing a methodology for utilities to claim energy savings from their effort. Completing this goal will require careful program design.

Difference between Traditional Programs and Code Programs

With all types of efficiency programs, Utility Regulators must approve proposed program and confirm it meets the specified cost-effectiveness tests and requirements set forth by the regulatory agency. Exploring the design of utility code programs requires addressing unique challenges in program design that typically include the following areas:

- Traditional efficiency programs rely on incentives to spur consumer uptake of higher efficiency products or actions. Codes do not affect consumer choice.
- Code programs involve a unique and diverse set of stakeholders that include e homebuilders, code officials, architects, engineers, manufacturers, building material suppliers and unions.
- Codes affect all new buildings and major renovations. Traditional new construction programs affect only a small percentage of the building stock, thereby excluding most building owners and homeowners from participation.
- For code related programs, costs focus on administrative costs and less on rebates. This introduces new wrinkles in how a utility evaluates cost-effectiveness.

The following section will discuss the framework upon which to design a utility codes program focusing on the various components that a successful utility program should encompass.

Framework for Utility Codes Programs

Realizing the energy savings potential of energy codes will require finding ways to improve compliance with the code. Utilities can provide funding and expertise to help in this area. In a complementary fashion, receiving credit for the energy savings gained help utilities meet their EERS goals. Program design must reflect these goals. This section will outline the various issues that should be considered during the program design. These issues include:

- Considering the types of energy savings involved (electricity or natural gas);
- Determining the types of activities that utilities should engage;
- Figuring out how to measure the energy savings from utility activities;
- Figuring out how to attribute the energy savings to utilities;
- Confirming the allocation of the energy savings among the utilities in a state.

Types of Energy Savings

It is necessary to differentiate between the types of energy savings gained in residential and non-residential buildings. For residential dwellings, code improvements typically focus on the building envelope, pipe insulation, building air infiltration and duct sealing. These types of improvements generally affect the direct fossil fuel use of a building[9]. Lighting improvements,[10] which affect the electrical savings, contribute a small percentage of the total energy savings. In non-residential buildings, on the other hand, the major energy consumption drivers consist of lighting, building envelope, and HVAC equipment which represent a mix of fossil fuel and electricity use (DOE 2010). As a result, non-residential buildings can see significant savings in both electricity and fossil fuels with increased compliance with the energy code. It is necessary therefore, to keep in mind the separate requirements for electricity and natural gas savings (Table 1), as well as the distribution of electricity and natural gas utility service territories across a given

[9] The exception to this situation occurs in rural areas where electric resistance heating is more widespread.

[10] Building energy codes are preempted by federal law from setting an efficiency standard on air conditioners (the other main source of electricity consumption) except under very restrictive conditions.

state. In addition, code compliance programs by utilities will be different for dissimilar building types, following current utility programs.

Possible Utility Activities

The Code adoption process in the Midwest has historically consisted mainly of adopting the model energy codes usually with only minor amendments. As a result, utility work focused on adopting the most stringent code possible will not generate much savings. Instead, Midwest codes programs can maximize energy gains by enhancing compliance with the energy code. This is important work because compliance in the region is believed to be well below 100% (Ruffcorn 2011). Consequently, in the design of the program, utility activities should focus on improving compliance with the code. Some of the possibilities include:

- Establishment and funding of a training program for code officials
- Evaluation of the code compliance infrastructure
- Investigation of regulatory tools
- Evaluation of proposed changes to the energy code and to the compliance infrastructure
- Performance Test Rebates
- Establishment and funding of an organization focused on improving compliance (Utility Codes Group in Washington)
- Establishment and funding of a third party inspection program

Examples of these possibilities have been incorporated in the states of California and Washington by some utility compliance programs. See Section 4 of this document for additional information on these programs and their successes.

Measurement of Energy Savings

An important component to any utility energy efficiency program is a methodology for measuring the energy savings that result from the utility actions. This should include developing a means of measuring compliance rates (either statewide or within a utility territory) to both establish a baseline and measure improvements due to utility actions. It should also include formulating a means to convert changes in compliance rate to actual energy savings. Some baseline compliance studies have been made over the years (**Table 3**) which track the general compliance rates across the country. More importantly, the Pacific Northwest National Laboratory has recently conducted a series of compliance pilot studies to determine the tools and how compliance rates will be measured. These studies were state specific and also serve as example for all states that are required to meet compliance rates of 90% by the year 2017 to maintain their ARRA stimulus funding.

Similar studies completed in Minnesota also serve as a good example of how these steps can be completed and will be outlined in more detail in Chapter 4 of this document.

Attribution

Upon determining the energy savings, the next step involves determining the percentage of these energy savings that can be directly attributed to utility actions. Work is underway in Massachusetts and California to resolve this issue. However, to give a flavor of the attribution method, this paper will briefly describe the current methodology used in California.

The State of California, for example, brought together a panel of expert stakeholders from different building related fields, named the "Delphi Panel," to determine attribution rates for work completed in the development of appliance standards. The panel, based on analysis and interviews with a variety of stakeholders, determines the rates a given utility contribution based on five factors:

- Importance of Product in Market
- Effort Needed for Test Methods/Research
- Level of Innovation.
- Preparation of CASE Analysis
- Work with Stakeholders & Public Process

A value is assigned to each of these factors based on its importance and to the contribution of the utility for the specific category. A weighted average of these values is then calculated, resulting in a number between 0 and 1. This value is multiplied by the energy savings to determine the savings applied towards the energy efficiency program goal. See Mahone (2005) and Lee (2008) for a more detailed discussion of this issue.

Compliance enhancement attribution will require the development of different factors. Both California and Massachusetts are currently developing this methodology.

Allocation

A final issue to consider is allocation. Once the savings have been calculated and the attribution to utilities is determined, the subject of parceling the savings to the different utilities (allocation) remains. Allocation refers to how much energy savings is awarded to a given utility within a state. The portioning of savings is most often considered both on the basis of geography (the energy savings generated within a utility's service area), as well as the allocation by fuel.

It will likely be very difficult in practice to conceive of a fair way to directly allocate savings by service territory. For example, assume that a utility from one territory conducts trainings for a homebuilder that proceeds to build in a different utility territory; determining which utility should receive the savings and in what proportion will be a very difficult question to answer. To help alleviate this issue, energy savings can be allocated based on the contribution of a given utility to an umbrella group such as the Utility Codes Group (See Washington State example). Alternatively, a methodology is required to determine the utility share in overall energy consumption. If that calculation becomes too cumbersome or costly, other proxies for this type of calculation can include the use of program expenditures or number of customers (Mahone 2005).

State Discussions

The previous sections described the framework and various components of a possible utility energy codes program focused on improving compliance rates. Some states have taken on different aspects of this work. The following section will highlight work currently underway by states to move their utility and state energy code collaboration programs forward.

California

The California Public Utilities Commission has been performing studies and analyses in preparation for the establishment of the code compliance enhancement program for a number of years (TecMarket Works 2006). Utilities such as Pacific Gas and Electric (PG&E) have begun submitting Program Implementation Plans (PIPs), which outline strategies for raising code compliance (PGE 2009). California has one of the most stringent and complex energy codes in the nation, requiring the development of tools to achieve high code compliance. As part of its PIP, PG&E has proposed the following procedures designed to improve code compliance in their territory:

- Conduct research to determine high-priority tactical solutions for code compliance and focus efforts accordingly.
- Increase training and support for local building code officials.
- Investigate regulatory tools such as licensing/ registration enforcement.
- Evaluate proposed changes to the code and compliance approaches to simplify and expedite compliance.
- Work with local governments to improve code compliance, adopt above code ordinances, and provide training/education.

In addition, the PIP outlines plans for longer term efforts that include establishing a policy to incorporate Home Energy Rating System (HERS) raters into the code compliance infrastructure. California is fairly advanced in their current efforts and will be developing measurement and attribution strategies in the near future to properly evaluate the work.

Washington

In the mid-1990's, upon the adoption of a new non-residential code, utilities in Washington State formed an umbrella organization called the Utility Code Group (UCG) (Kunkle 1997a) to ensure that the new code is properly implemented. The work of the UCG, including its Special Examiner/Inspection Program (SPE/I), outlined below, provides an example of the type of products that directly assists in compliance efforts. **Table 4** outlines the goals, activities and types of training programs developed under the UCG.

Table 4. Goals, Activities, and Training Programs under Washington's UCG

Goals	Activities	Training Programs
Establish a comprehensive training program	Developed and implemented a training program	Trained on overall code
Raise awareness of the new code	Marketed the training program	Trained on individual aspect of codes such as lighting, HVAC or the building envelope.
Increase compliance through training and enforcement innovation	Funded and cooperated with code officials on creation of Special Inspection Program	Trained for Special Plan Examiner/Inspector Exam (SPE/I)[11]
Ensure cost-effective implementation	---	---

A key issue for the UCG was how savings would be allocated to the various participating utilities. To solve this problem, utilities provided the funding for the UCG in relation to their revenues and were, in turn, awarded a proportional amount of the savings.

Ultimately, through the work of the UCG, the compliance rate rose to 94% from 50% between buildings that used a special inspector and those that did not.

Special plan examiner/inspector program. The SPE/I program, implemented as part of the work of the Utility Code Group in Washington State aimed to supply individuals (Special Inspectors) trained in the energy code as a supplement to code officials, who could then reduce the burden on code officials with respect to the energy code. To become certified, Special Inspectors needed to go through a rigorous training and certification program focused on the energy code. (Kunkle 1997b)

The voluntary SPE/I program worked in the following way. A participating jurisdiction (jurisdictions did not have to participate) would allow a builder or developer to either go through the municipal permitting and inspection process or contract directly with a Special Inspector to do the permitting and inspection. Although the Special Inspectors were responsible for inspecting and documenting compliance, ultimate compliance had to be approved by the authority having jurisdiction.

This type of program can be instituted by any state. Utilities can help by funding/managing the training and certification process and helping to provide marketing for these inspectors or to work with the state building code official to maintain a list of qualified inspectors.

This type of program helps with enforcement on at least two levels. First, it provides an additional cadre of specifically trained personnel to supplement the local code officials who are typically overwhelmed by their case load and who have to focus on other items besides the energy code (health and safety). Second, it helps shorten the time that developers and builders have to wait in order to get approval for drawings and construction.

Massachusetts

The efforts underway in Massachusetts illustrate a replicable procedure for designing and implementing a utility code program (NMR 2009, 2010). Massachusetts (along with California) is leading the way and so, by extension is pioneering many of the steps that other states will have

[11] More detailed discussion of SPE/I program will occur in Subsection A.4

to take. Some of the key actions completed include assembling all the major public administrators of programs together. In states, with multiple Project Administrators (PA's), it is vital to have agreement among all the major players to ensure statewide coverage since code compliance can best be measured on a statewide level. It can be difficult to parse out specific differences in compliance rates among specific areas. A consultant has been hired by MA program administrators to oversee the development of the PA program. Moreover, the state energy agency (Department of Energy Resources) and the PA's are in the process of initiating research projects focusing on four key areas: Identifying and outreach to key stakeholders, establishing the energy potential of a code compliance enhancement program, conducting a study to establish the baseline code compliance rate and determining an attribution methodology. Key stakeholders such as the Northeast Energy Efficiency Partnerships are conducting in-depth research on the various efforts around the country.

Minnesota

The Minnesota Department of Commerce, Office of Energy Security funded the Minnesota Environmental Initiative to convene a stakeholder process investigating the obstacles to achieve energy savings equal to 1.5% of net retail sales of electricity and natural gas. (MEI 2011) One of the four areas addressed by the group was how codes and standards could be used to contribute to the 1.5% savings requirement.

Methodology for quantifying savings. The 1.5% Solutions Group proposed a method of quantifying the electric and natural gas energy savings that are not achieved due to code non-compliance, and suggested that utilities could either participate in statewide efforts or utility territory specific efforts to improve the code compliance over time and then take credit for that increased compliance energy savings. The proposed methodology would leverage the U.S. Department of Energy (DOE) and Pacific Northwest National Laboratory (PNNL) methodology for calculating a mean-weighted compliance score (PNNL 2010).

The DOE and PNNL methodology uses a survey of a sample of 44 new and renovated residential and commercial buildings for 176 total buildings per state. Using the survey results and attribute weightings by climate zone a mean-weighted compliance score is calculated.

To calculate the energy impact of code non-compliance, the PNNL survey results would be combined with a survey of the total new and renovated construction in the state that includes building use type, size, and geographic location for the given year. The energy use of the new and renovated buildings could then be calculated at code compliance levels and at levels found during the survey using either energy simulations of typical buildings or other calculation methods. The calculations would be done on representative buildings for each of the building types and size ranges with typical weather, operations and schedules.

Methodology for allocating savings. Although the 1.5% energy savings is a statewide goal, Minnesota has allocated utilities their own goals to contribute to the 1.5%. In order to allocate energy savings to utilities that increase code compliance, the 1.5% Committee has recommended particular statewide and utility territory-specific efforts.

Utilities could opt into a statewide education and outreach program. The State would allocate savings from that program as a percentage of funding contribution. The State would calculate savings as the energy difference between this year's fleet of buildings at this year's

attribute levels to this year's fleet of buildings at last year's attribute levels. The State would not necessarily allocate all of the year-over-year savings to the utilities because some increase in savings will result from increases in code compliance not attributable to the formal education and outreach program.

If a utility has a desire to embark upon a territory-specific effort, they may. The utility could provide funding for their territory to be oversampled, and a state would allocate savings as the difference between their territory's fleet of buildings at their territory's average attributes and those of their territory's fleet at the state average attributes. This would allow the difference between statewide savings and territory-specific savings to be calculated. A utility could both participate in the statewide effort and their own territory specific efforts. General education and outreach efforts would be best accounted for in the statewide program because an architect or engineer trained in one utility service territory will likely design buildings in several utility service territories.

The Minnesota Department of Commerce's Office of Energy Security is currently reviewing the MEI 1.5% Energy Efficiency Solutions recommendations and deliberating on the next steps.

Illinois

The major IOU utilities in Illinois have established some programs to enhance compliance of building codes throughout the state. They are currently providing support for training programs through energy efficiency program (EERS) funds. The Department of Commerce and Economic Opportunity (DCEO) is the state agency in charge of energy, workforce development, and implementation of the energy code, which has a statewide training program for homebuilders, designers, code officials, realtors, and home performance professionals to introduce the 2012 International Energy Conservation Code. This multi-day training includes both the residential and commercial energy codes and is offered in multiple locations throughout the state. This training is in response to the upcoming adoption of the 2012 IECC by the state. DCEO's goal for these trainings is to raise the compliance levels throughout the state by preparing building professionals for the first state wide energy code. The DCEO intends to run 40 trainings across the state. The issue, however, is that Illinois does not have a mechanism for measuring or awarding energy savings due to these trainings to the utilities that have funded the effort.[12]

Conclusion

Great potential exists for a mutually beneficial policy marrying utility programs and energy code compliance enhancement. Energy savings from building codes would be realized and utilities would receive much needed energy savings towards their EERS goals. This paper endeavored to provide a framework upon which to develop robust energy efficiency plans that would actually ensure code compliance and ensure that utilities receive adequate credit for their efforts in this area.

[12] Go to http://www.ildceo.net/NR/rdonlyres/A294E7E5-187C-492C-9044-27CD91DA7C6A/0/Flyer5.pdf for more information.

It cannot be emphasized enough that the work on this policy is still in the early stages. No state has put together a complete plan in order to implement this program. Several states, however, are either putting plans together or at a minimum incorporating individual aspects of the necessary framework. Over the next couple of years, additional studies will be conducted, completed program plans will be filed and baseline compliance studies will be performed in several states. At that point, it will become possible to both begin evaluating the efficacy of a code utility program and developing ways to improve the framework.

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