



# Utilities and Energy Code Compliance

## Background

Building energy code compliance and enforcement are critical to ensuring that states meet their targeted emission reduction goals to help combat climate change. However, compliance rates vary widely from state to state, which means that while some states have accurate code compliance rates and effective enforcement, others do not enforce codes as strictly. States that don't enforce energy codes effectively may be struggling with a lack of resources and training, a shrinking code official workforce, and prioritizing fire and life safety codes which may be perceived as more critical than energy codes.<sup>1</sup> Energy codes are, in fact, life safety codes, as they are intended to improve indoor air quality, reduce flame spread, prevent mold, and increase occupant health, safety, and comfort<sup>2</sup>.

There are substantial monetary and energy savings opportunities for states, builders, and consumers that prioritize energy code compliance and enforcement. The Institute for Market Transformation (IMT) projects that nationally annual energy savings from complying with the current commercial and residential energy code for just one year is \$63 to \$174 million and results in energy savings of 2.8 to 7.9 quadrillion British Thermal Units (BTU).<sup>3</sup> This is a massive opportunity for states, and the cost versus benefit is significant. IMT states that each dollar spent on energy code compliance and enforcement yields \$6 back in energy savings.<sup>4</sup>

So, what's stopping states from capitalizing on this opportunity? Each state may have its own reason for low compliance rates, but a common theme might be lack of funding, either because compliance is not a priority compared to other budget items or because of ideologically opposed agendas. Some states are starting to research the savings potential of compliance. A recent study in Minnesota found that the state could save approximately \$9,733,000; 73,089,700 Kilowatt hours (kWh) in electricity; and 3,274,500 BTUs of natural gas; just by complying with the energy code elements that aren't currently enforced.<sup>5</sup> In addition, insurance companies may provide more favorable rates to homes that are built to meet or exceed newer code requirements.

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<sup>1</sup> [https://neep.org/sites/default/files/code\\_compliance\\_toolkit\\_update\\_1.pdf](https://neep.org/sites/default/files/code_compliance_toolkit_update_1.pdf)

<sup>2</sup> [https://neep.org/sites/default/files/LifeSafetyCodes\\_info\\_final\\_2.pdf](https://neep.org/sites/default/files/LifeSafetyCodes_info_final_2.pdf)

<sup>3</sup> [https://www.imt.org/wp-content/uploads/2018/02/IMT\\_Report\\_Code\\_Compliance\\_Savings\\_Potential\\_FINAL\\_2013-2-15.pdf](https://www.imt.org/wp-content/uploads/2018/02/IMT_Report_Code_Compliance_Savings_Potential_FINAL_2013-2-15.pdf)

<sup>4</sup> [https://www.imt.org/wp-content/uploads/2018/02/Commercial\\_Energy\\_Policy\\_Fact\\_Sheet\\_-\\_Code\\_Compliance.pdf](https://www.imt.org/wp-content/uploads/2018/02/Commercial_Energy_Policy_Fact_Sheet_-_Code_Compliance.pdf)

<sup>5</sup> <https://slipstreaminc.org/research/mn-comm-baseline-study>



## Opportunities for Coordination between States and Utilities

Utilities and other energy efficiency program administrators can play a crucial role in increasing energy code compliance and enforcement as part of energy efficiency program portfolios. In this role, program administrators can serve as partners to the state in building energy codes adoption, compliance, and enforcement processes.

### New York Utility and Energy Code Compliance

The New York State Energy Research and Development Authority (NYSERDA) uses money from utility bills to support building energy code compliance and enforcement.

They have published resources targeted to various building professionals, including:

- [The Performance Path Enforcement Manual](#)
- [New York State Energy Code Manual for Design Professionals](#)
- [Energy Code Enforcement Manual for Code Enforcement Officers](#)
- [Build Better Field Guide](#)

Through evaluation and program design, energy and cost savings can be directly attributed to utility-run programs, so that utilities can meet the energy savings and other goals mandated to achieve performance incentives. Utility-run incentive and savings programs will become more desirable to states as energy codes are strengthened because utilities will see an increase in program enrollment due to a greater demand for new market technologies that are needed to meet the stricter code requirements, jurisdictions will meet their climate change goals, and consumers will save money on annual energy bills.<sup>6</sup>

### How Utilities Can Help

Utilities can spread awareness of code updates through:

- [Training and technical resources](#),
- Using their expertise to help develop and adopt stronger energy codes,
- Working with third-party verifiers to create or enhance energy efficiency incentive and rebate programs
- Use the data collected from their customers monthly energy bills in evaluation studies of compliance rates after enforcement goes into effect to show the impact of the enforcement actions over time.
- Sponsor field studies that could be used to further demonstrate the potential energy saving opportunities for future projects.

<sup>6</sup> [https://www.energycodes.gov/sites/default/files/2022-09/NECC\\_2022\\_Energy\\_Codes\\_and\\_Utility\\_Programs\\_Webinar\\_presentation\\_slides.pdf](https://www.energycodes.gov/sites/default/files/2022-09/NECC_2022_Energy_Codes_and_Utility_Programs_Webinar_presentation_slides.pdf)



## Utilities Involvement in Practice

There are several states which have fostered successful code compliance and enforcement partnerships with utilities. The [Massachusetts Department of Energy Resources \(DOER\)](#) works with natural gas and electric utilities through the [Mass Save](#) Program, which provides technical support for energy codes and offers incentives for homeowners and builders to invest in electrification, weatherization, and other energy efficiency programs. Through the [Green Communities Program](#), Massachusetts cities and towns may apply for state grants if they adopt the state stretch energy code. The performance path to code compliance for this stretch code is an Energy Rating Index (ERI) path, which requires third-party verification of a [HERS Rating](#). The projected incentive amounts for the Mass Save Program are built into the software used for the HERS Ratings, meaning that third-party verifiers are working with utilities to maximize energy and cost savings.

The [New Jersey Board of Public Utilities](#), under the guidance of the [Clean Energy Act](#), requires New Jersey gas and electric utilities to establish statewide energy efficiency programs and allows work in building codes to be attributed to savings under these programs. Utilities have the opportunity to get involved and support the energy code adoption process and may participate in advisory committees within the state, such as the [NJ Department of Community Affairs Uniform Construction Code Advisory Board](#). This collaboration incentivizes utilities to add their expertise and guidance to the decision-making process, which provides an additional level of engagement that could result in broader support for a code update.

Xcel Energy has an [Energy Codes and Standards Program in Colorado](#) that works with the Colorado Energy Office to help improve building energy code compliance and adoption using technical tools to update building codes and offers free training and webinars for those working with building communities in the state.

Nevada has an [Energy Code Circuit Rider](#), which is “dedicated to educating the building industry on the practicality of the energy codes and standards.” This is done through a collaboration between the [Nevada Governor’s Office of Energy](#) and its local Regional Energy Efficiency Organization, the [Southwest Energy Efficiency Project](#). This type of program could encourage further collaboration with utilities, who could offer their expertise and support for energy code adoption.



## Utility and Ratepayer Funded Energy Savings Programs in the NEEP Region

The table below outlines energy savings programs for states in the Northeast and Mid-Atlantic. Some of the programs are directly sponsored by the state’s utility, whereas others are state programs that are funded through customer energy bills.

STATE	ENERGY SAVINGS PROGRAM
CT	<a href="#">Energize Connecticut</a>
D.C.	<a href="#">D.C. Sustainable Energy Utility</a>
DE	<a href="#">Energize Delaware</a>
MA	<a href="#">Mass Save</a>
MD	<a href="#">EmPower Maryland</a>
ME	<a href="#">Efficiency Maine</a>
NH	<a href="#">NH Saves</a>
NJ	<a href="#">Clean Energy Program</a>
NY	<a href="#">NYSERDA</a>
PA	<a href="#">Act 129</a>
RI	<a href="#">Rhode Island Energy: Energy Saving Programs</a>
VT	<a href="#">Efficiency Vermont</a>
WV	<a href="#">Appalachian Power: Take Charge West Virginia</a>

## Conclusion

States should prioritize working with their utilities in order for homeowners, jurisdictions, and utilities to benefit from cost and energy savings. Utility programs across the country offer insights into how states may build upon the relationships between utilities and code officials on energy code compliance and enforcement, and these programs provide a framework of what’s possible when a state aligns the interest of utilities and energy codes.

Utilities can work to support code adoption and compliance by:

- Strengthening and supporting energy code updates during their adoption cycle;
- Spreading awareness of energy code changes through training and technical resources;
- Developing or enhancing energy efficiency rebate programs;
- Providing an expert perspective during the decision-making process;
- Sponsoring circuit rider programs; and
- Establishing and claiming attribution savings.