

## **Myth/Fact: Why Voluntary Building Codes Are Critical to Energy Efficiency Savings for America's Families**

Senators Portman and Shaheen plan to offer an amendment to the energy bill that the Senate is debating this week to add back the voluntary building codes sections of the Portman-Shaheen energy efficiency measure that were left out. The building codes language has been approved by the Senate Energy and Natural Resources Committee on a bipartisan basis five separate times and passed the full Senate by a vote of 85-12 in 2016 as part of a bipartisan energy package. Moreover, it has been [praised](#) by a broad range of stakeholders, from efficiency experts to industry leaders.

A new economic and environmental impact [analysis](#) of the building codes provisions by the American Council for an Energy-Efficient Economy (ACEEE) found that, over the lifetime of the provisions through 2050, the building codes provisions will: (1) save consumers \$41.4 billion on their energy bills; (2) reduce carbon dioxide emissions by 1.18 billion metric tons, which is the equivalent of taking 3.1 million cars off the road each year for 30 years; and (3) save 28 quadrillion Btu of energy.

The following myth/fact document outlines the facts around the building codes amendment.

***Myth: The amendment would “result in costly energy and water conservation mandates in new homes.”***

**FACT:** The building codes section does not include any mandates for new homes. The amendment includes a voluntary clause stating that the model building energy code, as well as the certification and reporting associated with states’ review of the updated code, are voluntary and nonbinding. In fact, the language of the amendment clarifies that the certification process is voluntary.

During a hearing before the Senate Committee on Energy and Natural Resources (ENR) in September 2019, Department of Energy Under Secretary Menezes testified that building codes would remain voluntary under the Portman-Shaheen bill: “The states and tribes are not required to adopt energy codes under the law because it is voluntary for them.”

Portman-Shaheen is an incentive-based approach that continues to allow DOE to provide technical assistance, financial support, and incentives to states and tribes who want to update their building codes. That is the case today. DOE was first given the authority to provide support to states to update their building energy codes in the Energy Policy Act of 1992 (42 U.S.C. 6833).

***Myth: The amendment would “encourage the Department of Energy to push overly prescriptive and costly energy targets” and allow DOE to “hijack” the building code development process.***

**FACT:** Quite the opposite is true. The bill includes reforms that address concerns raised by home builders that the Department of Energy has not been transparent or adequately considering the costs of proposals and targets.

Every three years, residential model building energy codes are developed and updated by the International Codes Council (ICC), a standards development organization outside of the federal government. Industry, including builders and developers, state and local code officials, DOE, and any

other interested stakeholders can participate in the code development process established by ICC by offering and supporting amendments to the code. DOE has always participated.

DOE currently has authority to participate in the code development process, and has set targets to reach a certain percentage of energy savings from the code in the past. Our bill codifies the practice of setting targets. To address concerns from home builders about the methodology DOE has used to set the target in the past, Portman-Shaheen includes a requirement that DOE work with states, tribes, local governments, and other interested stakeholders in their rulemaking to establish an energy savings target in advance of the code update.

To address concerns from home builders that the target might not be cost-effective and transparent, the bill requires DOE to publish its methodology and provide a return on investment analysis and the estimated cost and savings as a result of the target. Moreover, DOE must undertake a Small Business Regulatory Enforcement and Fairness Act (SBREFA) review for the targets, ensuring that the interests of small businesses are protected during the code development process.

The target is an energy savings goal but is not enforceable. The ICC residential model building energy code is not required to meet the target or accept any amendments DOE proposes to meet the target. Instead, DOE is only required to make a determination on whether the code met the target.

***Myth: The amendment would “seriously exacerbat[e] the nation’s affordability woes by making new homes prohibitively expensive.”***

**FACT:** The adoption of updated building energy codes – including the certification and review process - by states, local governments, and tribes will remain voluntary under Portman-Shaheen – *there are no mandates that will increase the cost of new homes.*

After each three year update to the ICC model building energy code, DOE through the Pacific Northwest National Laboratory (PNNL) conducts an analysis on the impact of the updated code compared to the previous codes. Based on PNNL modeling of a nationwide average, a new home going from the 2006 building energy code to the 2015 building energy code would cost an additional \$2,787 upfront in order to achieve 33 percent energy savings. These initial upfront costs are more than paid over the life of a mortgage from the energy savings. Ultimately, energy-efficient homes and buildings reduce home operating costs and put money back into homeowners’ pockets.

***Myth: The amendment “would add thousands of dollars to the price of a home without a corresponding reasonable payback period of 10 years or less”***

**FACT:** Portman-Shaheen codifies DOE’s existing practice to offer and support amendments to the code that achieve lifecycle cost effectiveness. This means that the cost of a given energy efficiency improvement is recouped in lower energy bills throughout the lifetime of the home or mortgage (assumed to be 30 years).

Proposals supported by the National Association of Home Builders (NAHB) would mandate that DOE only consider the upfront capital costs of an energy efficiency improvement and only support or propose energy savings improvements that recoup costs in 10 years or less (known as the “10 year simple payback”). Going from the DOE current lifecycle cost effectiveness to 10 years would be going backwards in terms of energy efficiency. Also, this approach ignores that initial costs are financed

through the mortgage and would prohibit DOE from considering improvements that could significantly improve energy efficiency in a home and continue to save homeowners money throughout the life of the home.

**Studies have shown that the requirement of a 10 year simple payback is worse than the status quo and worse for energy efficiency.** A 2015 analysis by the American Council for an Energy-Efficient Economy (ACEEE) estimated that the cumulative impacts of a proposal to require a 10 year simple payback would cost consumers \$23 billion and increase carbon dioxide emissions by 626 million metric tons for new buildings through 2040, which is the equivalent of the emissions from an average of 1.6 million cars per year. By contrast, a February 2020 analysis by ACEEE of Portman-Shaheen projected that the building codes sections alone will save consumers \$41 billion and reduce emissions by the equivalent of taking 3.1 million cars off the road each year for 30 years.

***Myth: The amendment would “discourage state and local governments from adopting cost-effective and location-appropriate building codes”***

**FACT:** First, the model code is entirely voluntary. But second, the ICC currently provides location-appropriate recommendations. The ICC residential model building energy code is broken down into eight different climate zones and are further separated into moist, dry, and marine designations – resulting in a total of 15 climate zones along with additional humid and tropical designations. This ICC classification system ensures that states are able to easily identify the recommendations designated for their own climate zones.

Portman-Shaheen explicitly recognizes the importance of these climate zones by requiring DOE to take into consideration the differences in climate zones when developing the energy savings targets. As is currently the case, the residential model building energy code is voluntary: some states have adopted all of the model code, some have adopted parts, and some have adopted none at all.