

## Energy Savings from Codes and Standards Count Towards EERS Savings Goals

The Energy Efficiency Resource Standard (EERS) in pending bills (H.R. 889, S. 548, and the Waxman-Markey Discussion Draft) all incorporate energy savings from improved building codes and equipment efficiency standards. Full credit is provided for verified savings from all updates to state and local building codes as well as new federal and state appliance and equipment efficiency standards. ACEEE has estimated these energy savings for six states and the results are summarized below. On average, we estimate that codes and standards will reduce 2020 electricity use by 4.5% and natural gas use by 1.6%. The EERS bills call for 15% electric and 10% natural gas savings by 2020, leaving 10.5% electric savings and 8.4% natural gas savings to be achieved by utility programs. If standards achieve more, of course, the utility targets will be adjusted downward by a corresponding amount, and vice versa.

### Savings from Codes and Standards as a Percent of 2020 Sales

	Codes	Standards	Total	Code Stringency in 2020
<i>Electricity</i>				
Texas	2.3%	2.1%	<b>4.4%</b>	2012 IECC
Florida	3.1%	2.2%	<b>5.4%</b>	2009 IECC
Maryland	1.0%	3.9%	<b>4.9%</b>	2012 IECC
Virginia	1.3%	2.9%	<b>4.1%</b>	2012 IECC
Ohio	0.5%	3.4%	<b>3.9%</b>	2018 IECC
Pennsylvania	<u>0.5%</u>	<u>4.1%</u>	<b>4.6%</b>	2018 IECC
Average	1.4%	3.1%	<b>4.5%</b>	
<i>Natural Gas</i>				
Pennsylvania	0.7%	0.9%	<b>1.6%</b>	2018 IECC

For building codes, these state-specific estimates are based on adoption of new versions of the International Energy Conservation Code (IECC), a national model code under which the country is divided into multiple climate zones with appropriate energy requirements in each zone. The table above describes the code we assume each state will adopt. We estimate the 2009 IECC will reduce average energy use by 15% relative to typical 2008 practice, while the 2012 and 2018 IECC will save 30% and 50% respectively relative to typical 2008 practice. Our code savings estimates factor in less than perfect enforcement of codes by assuming that 70% of these code savings are achieved in the first year a new code takes effect, ramping up to 80% in year two and 90% in year three and thereafter.

For appliance and equipment efficiency standards, we look at standards DOE is scheduled to update and for each product we estimate the new standard level and effective date based on legal requirements and DOE-published analyses. We also include several new federal standards, assuming that standards now in effect in several states will be adopted at the federal level. Savings from standards are calibrated to the average energy use and climate of each of the states we examined.