American Council for an Energy-Efficient Economy
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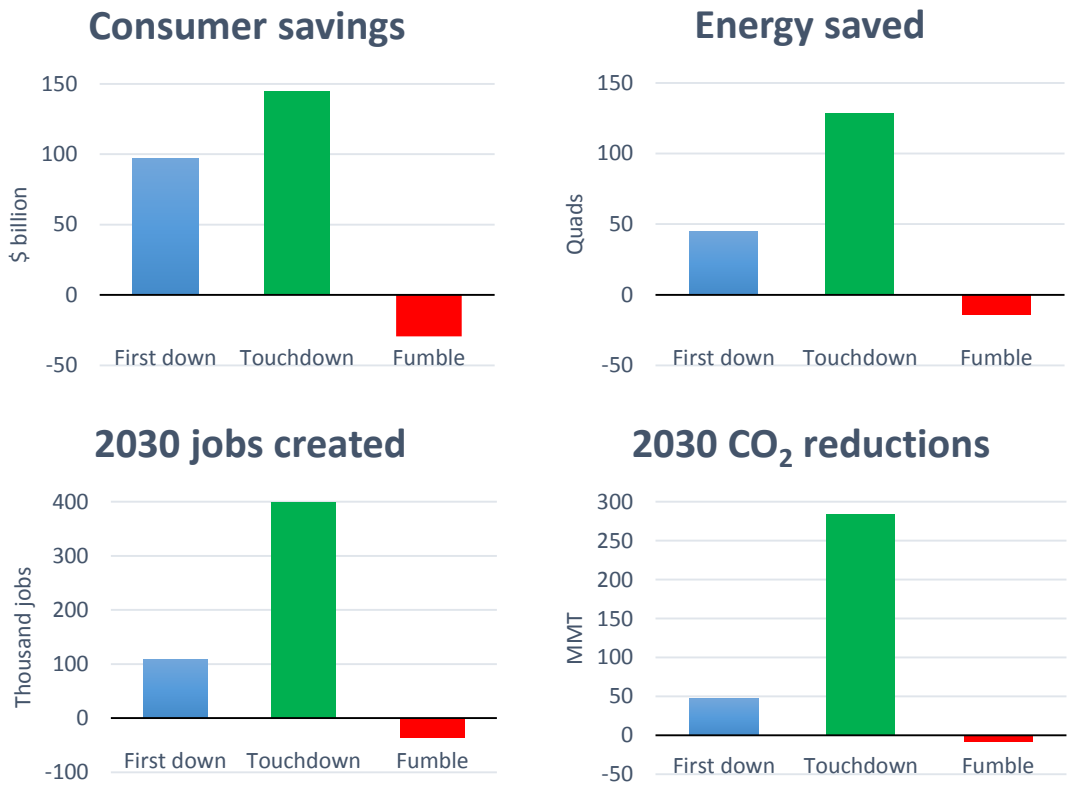
2015 Federal Energy Efficiency Legislation Savings and Jobs

Both the House and the Senate have been drafting broad energy bills in which energy efficiency is a key pillar. Energy efficiency helps achieve many of the bills' goals: it creates jobs and fosters economic development, reduces strain on supply infrastructure, and cuts pollution—all while saving consumers money.

ACEEE analyzed 15 energy efficiency policies to estimate their impacts on consumers, the economy, the environment, and the energy system. To simplify macroeconomic analysis and the presentation of results, we assigned the policies to three packages: a **first down** package that includes several provisions in the Senate bill and a few that could be added, a **touchdown** package that shows the impact of a broader policy to encourage efficiency throughout the economy, and a **fumble** package with provisions that would roll back current policies. This figure illustrates the results.



Results of three policy packages

We estimate the first down package would

- create 110,000 jobs in 2030
- reduce carbon dioxide emissions by almost 50 million tons in 2030, the equivalent of taking about 10 million cars and light trucks off the road
- save consumers almost $100 billion over the lifetime of measures through 2040

The potential benefits of the touchdown package are several times larger. On the other hand, the fumble package could cost consumers tens of billions of dollars and result in the loss of thousands of jobs.

The table below shows the cumulative impacts of individual provisions. By far the largest impact would be from a federal Energy Efficiency Resource Standard, requiring electric and natural gas utilities to help their customers save energy. The next largest impacts come from building energy codes. By modifying assistance to state and local governments on codes, the Portman-Shaheen bill could save consumers—and the Blackburn-Schrader bill could cost them—billions of dollars.

Other measures would help families and businesses save energy through recognition of savings in mortgages, better access to information, and programs to accelerate innovation in industry and in commercial buildings. Threats to energy savings include provisions that would hinder the effective appliance efficiency standards program, specifically with regard to furnaces and ceiling fans.

Cumulative impacts of individual provisions (PS is Portman-Shaheen; BS is Blackburn-Schrader)

Provision	Bill	Consumer net savings ($ billion)	Benefit-cost ratio	Cumulative energy savings (quads)
First down total		**96.8**	**2.4**	**45.00**
Building codes – PS	S.720, Sec. 101	61.4	2.7	30.97
SAVE underwriting	S.720, Sec. 433	12.1	3.0	4.42
E-Access	S.1044	12.6	3.3	3.32
Commercial benchmarking	S.1052	1.2	2.6	0.34
Smart buildings	S.1046	3.8	2.0	1.32
Nonprofit retrofits	S.600/H.R. 2132	0.0	2.1	0.01
Federal building standards	S.869	0.5	1.2	0.70
Fossil fuel standard repeal	S.869	-0.7	0.7	-0.81
Federal deep retrofits	S.1055	0.3	1.0	1.73
Industrial Assessment Centers	S.720, Sec.202	0.7	4.1	0.27
Smart manufacturing	S.1054	5.0	2.0	2.73
Touchdown total		**144.6**	**1.4**	**128.37**
Energy efficiency standard	S.1063	144.6	1.4	128.37
Fumble total		**-35.2**	**0.4**	**-15.83**
Building codes – BS	H.R. 1273	-23.3	0.4	-12.53
Furnace standard conditions	S.1029	-5.9	0.5	-1.28
Ceiling fan standard bar	S.1048/H.R. 3072	-5.3	0.2	-1.21
Fossil fuel standard repeal		-0.7	0.7	-0.81

The impacts are estimated for the lifetime of new measures through 2040. Consumer savings are the net present value of energy savings minus the needed additional investment. The benefit-cost ratio is generally the ratio of the present values of savings to investments. Note that fossil fuel standard repeal is paired with strengthened federal building efficiency standards in S.869 but is by itself in the fumble package. These "repeal and replace" provisions have also been linked to the SAVE Act mortgage underwriting provision.