

BACKGROUND

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The Shaheen–Portman Energy Efficiency Bill: A Costly, Inefficient Use of Taxpayer Money

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Abstract

Senators Jeanne Shaheen (D–NH) and Rob Portman (R–OH) recently introduced the Energy Savings and Industrial Competitiveness Act, which provides a host of federal incentives to make buildings and manufacturing processes more efficient. The Senators tout the energy efficiency upgrades as money-savers for consumers and businesses, and claim they will make America more energy independent and reduce greenhouse gas emissions. If the payoff is so great, why can companies and families not make these investments without the aid of the taxpayer? The Heritage Foundation’s Nicolas Loris explains why markets have long been the best tool to drive efficiency, and how the government’s intrusion with mandates and subsidies makes all Americans worse off.

Deep divisions within Congress have the American public and politicians alike wondering what Congress can accomplish—on any issue. One issue consistently mentioned is energy efficiency. To that end, Senators Jeanne Shaheen (D–NH) and Rob Portman (R–OH) have introduced the Energy Savings and Industrial Competitiveness Act.

Known as Shaheen–Portman, the act relies on taxpayer-funded handouts, not the market, to generate efficiency improvements. Shaheen–Portman requires the federal government to make energy-efficiency improvements and also provides a host of subsidies for commercial and residential building upgrades, manufacturing and industrial processes, and worker training programs. But if these programs will pay for themselves, as the Senators argue,¹ the private sector should pay for them. Shaheen–Portman ignores the

KEY POINTS

- Senators Shaheen (D–NH) and Portman (R–OH) introduced legislation that would provide subsidies for energy-efficiency upgrades in commercial and residential buildings, as well as for manufacturing processes and jobs training programs.
- The market already incentivizes American families and businesses to be more energy efficient. Mandates and subsidies skew the market and disregard consumer preferences; they also create unintended consequences and market inefficiencies.
- Energy-intensive manufacturers are aware that they can save money through efficiency upgrades. Using taxpayer dollars to offset the costs of chemical and automotive companies may be nothing more than corporate welfare.
- The government should eliminate efficiency standards and subsidies and give American families and businesses the freedom to pursue energy efficiency where it makes sense for them according to their individual preferences and budgets.

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long-standing truth that the free market promotes efficiency much better than the federal government. Congress should provide information, not subsidies, and make certain that efficiency improvements in the federal government actually save taxpayer money.

“Voluntary” National Building Codes and Efficiency Upgrades

Politicians and proponents of efficiency mandates and incentives view cost savings from upgrades as low-hanging fruit that families and businesses must realize. But if the efficiency upgrades make economic sense, businesses and homeowners should not need help from the taxpayer in making those decisions. The paternalistic view of federal intervention in energy efficiency ignores the trade-offs and budget constraints that families and investors face, as well as the preferences they hold. A manufacturer may be able to install a new piece of equipment that saves on the energy bill, but he may want to use that money to hire new employees. Parents may choose to pay a year’s college tuition for their child rather than install energy-efficient windows in their home. They may have legitimate concerns that the higher upfront cost is not worth the future savings, or have concerns, which empirical evidence supports, that those savings will not be realized.²

Shaheen–Portman aspires to reduce energy use in buildings by establishing more restrictive building codes. It charges a group of parties, such as the Council of American Building Officials and other “appropriate organizations,” with updating and encouraging the adoption of building energy codes for state governments and Indian tribes. After the qualifying parties update the code, state governments and Indian tribes have to certify whether they have reviewed and updated their building codes and whether the new codes have resulted in energy-cost savings.

Although the legislation labels the building codes as voluntary for states and tribes, the power of the federal purse (up to \$200 million) makes it tempting to adopt the codes. In fact, instead of employing a carrot-and-stick approach, the bill dangles carrots in

many different directions. Under Shaheen–Portman, states and tribes could obtain federal aid for code adoption and compliance if they fail to meet the new building code standards but show a plan for meeting the requirement. Further, the legislation would include subsidies on the front end: The Secretary of Energy would be able to direct funding to states and tribes to implement requirements, to impose residential and commercial building energy codes, and to promote energy efficiency through use of the codes.

More subsidies for efficiency upgrades and innovations exist in addition to those funding streams. Shaheen–Portman would establish a Commercial Building Efficiency Financing Initiative in which the Secretary of Energy would provide grants to the states for retrofit projects for commercial and private buildings. The states would have the discretion to use that grant money to establish a loan-guarantee program, a revolving loan fund, and other financing mechanisms, and the bill encourages states to “consider establishing such other appropriate policies, incentives, or actions” to further promote efficiency upgrades. Whether federal handouts are distributed at the federal level or funneled down to the state, the government should not be in the financing or banking business.

Subsidies for Worker Training Distort Markets

Viable industries do not need the government to pay to train their workers, and every dollar spent for that purpose is a direct subsidy to that business. Only businesses that cannot sustain themselves require the government to train their workers. Nonetheless, Shaheen–Portman creates multiple programs and spends millions of dollars on these wasteful programs.

For example, up to \$750,000 in taxpayer dollars would go to each state to train building-code officials to implement and enforce the codes. If states need more building code officials, they should pay for them.

The Department of Energy would also provide grants to colleges and universities to establish

1. The Energy Savings and Industrial Competitiveness Act of 2011 (Shaheen–Portman) Comprehensive Summary, <http://www.shaheen.senate.gov/imo/media/doc/ESIC.Comprehensive%20summary.May2011%20FINAL.pdf> (accessed May 28, 2013).

2. Gilbert Metcalf and Kevin A. Hassett, “Measuring the Energy Savings from Home Improvement Investments: Evidence from Monthly Billing Data,” *Review of Economics and Statistics*, Vol. 81, No. 3 (1999), pp. 516–518.

building training and assessment centers, to train architects and engineers in energy efficiency, and to promote research for alternative energy uses and other activities. The Energy Secretary can also direct funds to support training programs for supply-chain efficiencies in manufacturing processes. In other words, Senators Shaheen and Portman evidently believe that the government can teach industry something about efficient manufacturing and supply chains.

The argument for subsidized worker-training programs is not just that without the trained expertise the construction industry will lack the necessary labor force to identify energy savings and build more energy-efficient homes and buildings. The argument also rests on the assumption that the federal government is the best institution to incentivize that training. Proponents of such an approach either lack an understanding of how industries generate workforces, or acknowledge that the efficiency gains they are advocating do not have much market value. What is clear is that they understand how it is easy to get the federal government to pay for state, local, or private-sector needs.

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The fact is that if efficiency improvements really saved that much money, and if demand for more energy-efficient buildings and manufacturing processes existed, these programs would not be necessary. The

private sector expands and trains workers appropriately to meet demand or capture more opportunities and will make those investments with its own resources. For example, there are already “energy home audits”—services that identify how homes could save energy—and companies that sell energy-efficient windows and other technologies for commercial and institutional buildings should be the ones training the workers. Those who invest wisely today will be the ones best positioned to take advantage of any emerging markets in the future. The federal government’s involvement distorts that risk, or makes investments for a market that would otherwise not exist, and with insufficient demand, these subsidies will be a serious waste of taxpayer money.

Taxpayers already experienced the inability of the federal government to create a market through the green-jobs training programs funded in the stimulus. When the government doled out billions of dollars in the stimulus bill to make homes more energy efficient, shoddy workmanship requiring follow-up work, uncompetitive bidding, poor record-keeping, and overpriced energy-efficient light bulbs and carbon monoxide detectors became commonplace across the U.S.³ A September 2011 Department of Labor Office of Inspector General report found that “grantees have expressed concerns that jobs have not materialized and that job placements have been fewer than expected for this point in the grant program.”⁴ A follow-up report released in October 2012 found that the program fell well short of its retention goal of 71,017 workers (only 16 percent of participants remained employed longer than six months); much of the training was delivered to already employed workers and was not necessary for them to perform their jobs.⁵ The same report also found that more than 20 percent of training certificates went to workers who had only one day

3. See, for instance, U.S. Department of Energy, Office of Inspector General, “Audit Report: The State of Illinois Weatherization Assistance Program,” October 2010, <http://energy.gov/sites/prod/files/igprod/documents/OAS-RA-11-01.pdf> (accessed May 16, 2013), and U.S. Department of Energy, Office of Inspector General, “Examination Report: Cuyahoga County of Ohio Department of Development—Weatherization Assistance Program Funds Provided by the American Recovery and Reinvestment Act of 2009,” September 2011, <http://energy.gov/sites/prod/files/OAS-RA-11-19.pdf> (accessed May 16, 2013).

4. U.S. Department of Labor, Office of Inspector General, “Recovery Act: Slow Pace Placing Workers into Jobs Jeopardizes Employment Goals of the Green Jobs Program,” September 30, 2011, <http://www.oig.dol.gov/public/reports/oa/2011/18-11-004-03-390.pdf> (accessed May 16, 2013).

5. U.S. Department of Labor, Office of Inspector General, “Recovery Act: Green Jobs Program Reports Limited Success in Meeting Employment and Retention Goals of June 30, 2012,” October 25, 2012, <http://www.oig.dol.gov/public/reports/oa/2013/18-13-001-03-390.pdf> (accessed May 16, 2013).

of training, and 47 percent received five or fewer days of training.⁶ Job-training programs may score political points for politicians who like to point to the jobs they “created” at election time, but they are a needless waste of taxpayer money.

Corporate Welfare in Advanced Manufacturing Office

Senator Shaheen and Senator Portman also want to help America’s manufacturers by improving efficiency and competitiveness in the industrial sector. But rather than create an economic environment that allows manufacturers and industrial companies to flourish on their own with a good tax policy, immediate expensing of equipment, and increased energy development that would lower their input costs, the industrial-competitiveness section of the bill merely attempts to offset bad policy with short-term subsidies.

In addition to the worker-training subsidies, the legislation would provide funding through the Department of Energy for public-private partnerships to conduct research on how to commercialize energy-efficient technologies and processes. The bill would also offer rebates for manufacturers that use more efficient electric motors and transformers, and establishes a SupplySTAR program that would identify companies that conserve energy, water, and other resources in their supply chains.

The reality is that businesses do not need taxpayer dollars to improve efficiency and cut costs; they make those investments with their own money. There are countless examples of businesses making these investments on their own. When their savings outweigh the costs, their reward is reduced energy bills and more competitive prices for their products. A SupplySTAR program under the Department of Energy that disseminates information on a voluntary basis has merit, but the department should not label SupplySTAR companies and products that

comply with the program as the “preferred practices, companies and products in the marketplace for maximizing supply chain efficiency,” as indicated in the bill. Those preference choices should be made by those in the industry and who use the supply chains.

The bill also intends to improve transparency and direction for the Department of Energy’s Advanced Manufacturing Office (AMO), which provides grants to companies to improve manufacturing efficiency. While both are laudable goals, the real question is why the Advanced Manufacturing Office exists in the first place. Through this initiative, the Department of Energy provided \$54 million for 13 projects in 2012 and another \$23.5 million for five projects in 2013.⁷ The AMO duplicates many existing state programs; in fact, the Department of Energy points out to business owners the “access to thousands of rebates, grants, loans, assessments and other incentives for implementation of energy savings projects in your plant.” The department awarded funding primarily to automotive companies, chemical companies, and universities, and demonstrates why the country does not need an Advanced Manufacturing Office. The projects are either blatant corporate welfare for large companies, or research and development projects conducted in universities, which the private sector should collaborate with and fund. A snapshot of some of the very large companies receiving funding in 2012 and 2013 includes:

- LyondellBasell (\$4.5 million)⁸ is one of the largest chemical companies in the world with annual revenues of \$45 billion and a market capitalization of \$35.7 billion.⁹
- Air Products and Chemicals (\$1.2 million)¹⁰ sells atmospheric gases and chemicals for industrial use and had sales of \$9.6 billion and capital expenditures of \$2.8 billion in 2012.¹¹

6. Ibid.

7. News release, “Energy Department Invests \$54 Million to Spur Development of Transformational Manufacturing Technologies,” U.S. Department of Energy, Advanced Manufacturing Office, June 12, 2012, http://www1.eere.energy.gov/manufacturing/newsandevents/news_detail.html?news_id=18412 (accessed May 16, 2013).

8. Ibid.

9. LyondellBasell, *2012 Annual Report*, <http://www.lyondellbasell.com/InvestorRelations/FinancialReporting/AnnualReports/> (accessed May 16, 2013).

10. News release, “Energy Department Invests \$54 Million to Spur Development of Transformational Manufacturing Technologies.”

11. Air Products and Chemicals, “Earnings Releases,” 2012, <http://investors.airproducts.com/phoenix.zhtml?c=92444&p=quarterlyearnings> (accessed May 16, 2013).

- General Motors (\$2.7 million)¹² received funding to manufacture car doors more efficiently to improve fuel efficiency. The company has a market capitalization of \$46.7 billion.¹³
- Delphi Automotive (\$3.7 million)¹⁴ is an electronic and technologies automotive supplier and invests \$1.6 billion annually in engineering and development.¹⁵
- The Dow Chemical Company (\$9 million)¹⁶ had \$57 billion in sales in 2012 and invests over \$1 billion annually in research and development.¹⁷
- The Ford Motor Company (\$7 million),¹⁸ which has a market capitalization of \$54.8 billion,¹⁹ received taxpayer dollars to invest in a technology that would reduce energy consumption in the auto-processing design.
- Novomer, Inc. (\$5 million),²⁰ a self-labeled sustainable chemical company is no stranger to receiving federal support. The Department of Energy also awarded the company \$18.3 million in stimulus money to make plastic, polymers, and chemicals from carbon dioxide.²¹

Other recipient companies are smaller, or universities, but that just reinforces the notion that private companies, not taxpayers, should be taking these risks. Teledyne Scientific & Imaging exists to conduct research and development for the private sector and it should be left that way. The company

even boasts that it has established itself “as a model for the transformation of a corporate R&D laboratory to a successful, for-profit enterprise by expanding our customer base, and offer[ing] cutting-edge R&D services, coupled with products, and licensing offerings to address your needs for high-value solutions.”²²

Whether or not government investments save money or improve efficiency is irrelevant. The question is why taxpayer money should be used to support them.

Whether or not these investments save money or improve efficiency is irrelevant. The question is why taxpayer money should be used to support them. Companies will make these investments if they believe the technology is promising, worth the risk, and the best use of their investment dollars. In these cases, especially when the government handouts go to more established companies such as the ones mentioned, the taxpayer handout partially offsets private-sector investments that would have been made without the federal support. Private companies should and do use the national laboratory and university systems to spur innovation, but those companies should fund those investments entirely.

12. News release, “Energy Department Invests \$54 Million to Spur Development of Transformational Manufacturing Technologies.”

13. Yahoo!Finance, “General Motors Company (GM),” May 16, 2013, <http://finance.yahoo.com/q?s=GM>, (accessed May 16, 2013).

14. News release, “Energy Department Invests \$54 Million to Spur Development of Transformational Manufacturing Technologies.”

15. Delphi, “Delphi by the Numbers,” <http://delphi.com/static/2012annual/site/glance.htm> (accessed May 16, 2013).

16. News release, “Energy Department Invests \$54 Million to Spur Development of Transformational Manufacturing Technologies.”

17. The Dow Chemical Company, “Our Company,” <http://www.dow.com/company/index.htm> (accessed May 16, 2013), and The Dow Chemical Company, “Research and Development,” <http://www.dow.com/michigan/locations/midmichigan/research.htm> (accessed May 16, 2013).

18. U.S. Department of Energy, Advanced Manufacturing Office, “Utility Partnerships: \$23.5 Million Investment in Innovative Manufacturing Projects Supports the New Clean Energy Manufacturing Initiative,” March 26, 2013, http://www1.eere.energy.gov/manufacturing/utilities/news_detail.html?news_id=19109 (accessed May 20, 2013).

19. Yahoo!Finance, “Ford Motor Co. (F),” May 16, 2013, <http://finance.yahoo.com/q?s=F> (accessed May 16, 2013).

20. U.S. Department of Energy, Advanced Manufacturing Office, “Utility Partnerships: \$23.5 Million Investment in Innovative Manufacturing Projects Supports the New Clean Energy Manufacturing Initiative.”

21. News release, “Novomer Awarded \$18.4M in Federal Stimulus Funds by U.S. Department of Energy,” July 29, 2010, http://www.novomer.com/?action=pressrelease&article_id=51 (accessed May 16, 2013).

22. Teledyne Scientific & Imaging, “Research and Development,” <http://www.teledyne-si.com/html/randd.html> (accessed May 16, 2013).

Government Should Be Energy Efficient— But Not for A Political Agenda

Shaheen-Portman also aims to improve energy efficiency within the federal government, the country's single largest user of energy. The bill would do this by requiring the federal government to improve energy savings for information and communication services such as computers and software, and update plans for new federal buildings; it also specifies that natural gas and electric vehicles and their respective charging infrastructure can be used for energy savings. The legislation would also require the Office of E-Government and Information Technology²³ to consolidate federal data centers and publish year-by-year projected savings and productivity gains.

Improving energy efficiency in the federal government can save taxpayer dollars when done appropriately, but those investments should remain technology neutral. Whereas the government has less incentive than businesses and homeowners to save money, energy-efficient investments can make economic sense for the taxpayer, but those investments should not be made to advance a renewable energy agenda—they should be done on the merits of reducing energy costs and on improving capabilities. Reports indicate that the vehicle program will be removed from the bill to lower the costs of the legislation, which is a positive development, but the federal government should not be using tax dollars or other federal requirements to pick winners and losers and encourage the use of alternative fuels.²⁴

Further, Congress should do more to ensure that these efficiency upgrades are actually saving money. Today, an energy service company (ESCO) will identify potential savings for a federal agency and enter into an energy savings performance contract

(ESPC). The ESCO guarantees the cost savings, and those cost savings pay for the service rendered by the ESCO with additional cost savings after completion of the contract accruing to the federal agency.²⁴

While ESPCs have lowered energy use and saved taxpayers money, the Government Accountability Office and the Department of Energy's Inspector General (IG) have outlined problems with ESPCs, including lack of reliable data, failure to verify savings, failure to protect agency interests, and agencies paying ESCOs even though no energy savings had been realized.²⁵ The September 2009 IG report audited four of the Department of Energy's largest ESCOs and found that the department continued to make payments to ESCOs even though the projects were not generating any savings. The report notes that "[i]n one case, the Department continued to pay for energy savings even after the four buildings containing ESPC improvements had been demolished. The Department also continued to pay for an ESPC project that had not functioned for six years."²⁶

In July 2009, two months before the IG report, Department of Energy Assistant Secretary for Energy Efficiency and Renewable Energy Cathy Zoi issued a memorandum to improve contract management and oversight projects, including a "life of contract" audit to ensure energy savings and contract obligations.²⁷ Improved transparency, oversight, and energy-savings verifications are necessary for ESPCs to succeed as a tool for improved government efficiency. Yet, the same memo also calls for an increased focus on greenhouse gas reduction, but the focus of ESPCs should be cost savings rather than distractive new initiatives.

Removing Mandates and Subsidies Removes Impediments to Market Efficiency. Producers

23. U.S. Office of Management and Budget, "Office of E-Government & Information Technology," <http://www.whitehouse.gov/omb/e-gov> (accessed May 24, 2013).

24. Nick Juliano, "Vehicle Program to be Stripped from Shaheen-Portman, 'Shrink Price Tag,'" *E&E Daily*, June 3, 2013 (accessed June 4, 2013).

24. U.S. Department of Energy, Federal Energy Management Program, "Energy Savings Performance Contracts," <http://www1.eere.energy.gov/femp/financing/espcs.html> (accessed May 24, 2013).

25. U.S. Government Accountability Office, "Federal Energy Management: Addressing Challenges through Better Plans and Clarifying the Greenhouse Gas Emission Measure Will Help Meet Long-Term Goals for Buildings," September 2008, <http://www.gao.gov/new.items/d08977.pdf> (accessed May 24, 2013), and U.S. Department of Energy, Office of Inspector General, "Audit Report: Management of Energy Savings Performance Contract Delivery Orders at the Department of Energy," September 2009, <http://energy.gov/sites/prod/files/igprod/documents/IG-0822.pdf> (accessed May 16, 2013).

26. *Ibid.*

27. U.S. Department of Energy, Federal Energy Management Program, "DOE Enhances Management of Energy Savings Performance Contracts," July 17, 2009, <http://www1.eere.energy.gov/femp/financing/espcsmodification.html> (accessed May 16, 2013).

have a much better ability to meet consumers' demands than any government mandate or subsidy program. Congress should recognize how markets have improved energy efficiency in the U.S. and:

- **Prevent federal funding for efficiency improvements in residential, industrial, and commercial buildings, and prevent mandatory building codes.** If commercial and residential building code requirements and efficiency upgrades are truly voluntary, businesses and homeowners can make their own determination whether the benefits are worth the investment. Localities should handle building code modifications to the extent that any are necessary.
- **Prevent federal funding for energy-efficient industrial processes and eliminate the Advanced Manufacturing Office.** Manufacturers can and do make these investments on their own and the Advanced Manufacturing Office has proved to be nothing but corporate welfare that offsets investments the private sector should be making.
- **Withhold funds or pass legislation that repeals efficiency standards, and instead promote voluntary programs, such as EnergySTAR, which provide consumers with information about energy savings for appliances.** A SupplySTAR program should focus completely on providing information, not picking winners and losers in the supply chain.
- **Avoid subsidies for worker-training programs.** The market will determine the number of engineers, architects, and educational programs necessary to provide energy-efficiency improvements.

- **Ensure that energy performance saving contracts focus on reducing energy costs, not promoting politically preferred technologies and reducing greenhouse gases.** Congress should provide strict oversight, transparency, reliable data, and cost-savings verification with each energy savings performance contract.

Let the Market Save

Energy-efficiency spending programs and legislation have largely enjoyed bipartisan support because special interests on both sides of the political spectrum stand to gain from these programs. The federal government's actions to help reduce energy use and help save businesses and families money *sound* like a winning scenario. However, being resourceful and saving money are common qualities of businesses and consumers, which means that the economy does not need government mandates, rebate programs, or spending initiatives to push businesses and homeowners to be more energy efficient. The Shaheen-Portman legislation purports to increase energy efficiency, but is not much more than a waste of taxpayer money.

The government's meddling in the energy sector with mandates and subsidies, in reality, detracts from efficient use of resources. Markets direct resources to where they are most desired—and needed. When families and business owners do not take full advantage of efficiency gains, it is because they are weighing other factors. Markets have driven the energy economy in the right direction. Mandates do the opposite.

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