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BACKGROUNDER

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Tax Extenders Would Make Energy Companies Dependent, Not Dominant

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Abstract

Competitive, free markets in the energy industry that promote choice and enhance energy security will best achieve President Trump's goal of American energy dominance. However, Congress is defaulting to its tried-and-failed approach of picking winners and losers through special tax breaks. America has a diverse energy sector and the market incentive to supply affordable electricity and competitive transportation fuels, which is sufficient to spur private investment without any preferential treatment from the federal government. Such treatment has costly consequences for energy markets and consumer choice. The only way to truly level the playing field is to eliminate all subsidies for every energy resource. Congress should neither resurrect expired energy tax credits nor extend existing credits.

With the passing of the Tax Cuts and Jobs Act at the end of 2017, the Senate also introduced the Tax Extender Act of 2017 (S. 2256).[1] The bill extends targeted temporary tax credits—many of which expired in 2016—for a variety of business operations, including more than a dozen for energy production and conservation. In fact, the bill rightly could be considered an energy tax bill, given that two-thirds of the 36 sections are energy-related.

By transferring the tax burden from these politically connected industries to individual American citizens, Washington is not only preserving unfairness in the tax code but also distorting the marketplace, which results in economic inefficiency and technological stagnation. Instead of addressing each tax provision on its own merits, Congress has traditionally manufactured crises around deadline events, such as the close of the fiscal year or the beginning of tax

Key Points

- Energy subsidies in the Tax Extender Bill increase taxpayer burden by an estimated $8.8 billion. The bill misses opportunities to improve the tax code and reduce distortions in the energy sector.
- Targeted tax measures do not promote energy dominance but instead encourage government dependence. Special tax measures treatment distorts market decisions by prioritizing subsidized investments over others, adversely affecting what would be reliable, economical power generators.
- For well over two decades, advocates of subsidies for renewables and energy-efficient products have stated that these technologies are cost competitive and save consumers money. However, if these products are competitive, they should not need government help to penetrate the market.
- The only way to level the playing field is to eliminate all targeted subsidies for every energy resource. Pro-growth tax policies like immediate expensing should be made available to all business investments, including energy.

This paper, in its entirety, can be found at **http://report.heritage.org/bg3279**

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season, to justify moving all the provisions forward in one package of tax extenders.[2]

Rather than relying on the tried-and-failed ways of the past, Congress should instead use this opportunity to improve the tax code further by letting the temporary credits expire as scheduled and end subsidies for all energy sources and technologies. Even if Congress were to let the tax measures being considered expire, the tax code still has many permanent tax subsidies for energy in need of sunsetting. Rather than picking winners and losers through the tax code, Congress should build on the success of the Tax Cuts and Jobs Act of 2017 and pursue pro-growth reform that encourages investment in new capital and reduces the burden on taxpayers.

Energy Tax Credits Under Consideration

Using the tax code to encourage energy development dates back more than a century. Even the temporary tax credits for so-called emerging technologies and alternative energy sources date back to the 1970s.[3]

The Tax Extenders Act would extend temporary tax credits for an assortment of energy provisions that expired at the close of 2016. Each case is retroactively extended to include past investments made in 2017. Among the items extended are investment tax credits for hybrid solar lighting systems, fuel cells, geothermal heat pumps, combined heat and power systems, and small wind power. Credits would be put on a promised phase-out schedule similar to what was passed for wind and solar electricity in the omnibus package of December 2015. Congress would also extend preferential treatment to qualified fuel cell motor vehicles, alternative fuel refueling property, two-wheeled plug-in electric vehicles, and second-generation biofuel and biodiesel. Congress also included credits for improving energy efficiency in homes and commercial buildings.

However, the bill would not subsidize only renewable sources. Indian coal facilities would receive a two-year extension of a production tax credit. Tax credits for capturing carbon dioxide would more than double. Carbon-dioxide capture used for enhanced oil or natural gas recovery would increase from $10 per ton to $35 per ton, and carbon capture and storage projects would receive a $50 per ton credit, up from $20 per ton.[4]

Nuclear power is another short-term winner from the bill. The Energy Policy Act of 2005 created a production tax credit for new nuclear power reactors up to the first 6,000 megawatts of capacity brought online by 2020. That tax credit, which lasts for the first eight years of production, would be extended for the likely benefit of only two companies with reactors under construction. Both projects have experienced serious cost and budget overruns, and one company has received billions of dollars in loan guarantees from the Department of Energy.[5]

The Costs of Energy Tax Extenders and Missed Opportunities

The tax extenders, which are nothing more than handouts to the energy industry, carry significant costs to American taxpayers. These measures would divert an estimated $8.8 billion in tax revenue, increasing the burden on taxpayers.[6]

The Tax Extenders Act misses opportunities to improve the tax code—and protect taxpayers—by failing to get rid of long-standing existing energy favoritism. For example, in previous drafts of the Tax Cuts and Jobs Act,[7] the House of Representatives eliminat-

1. The Tax Extender Act of 2017, S. 2256, 115th Cong., 1st Sess., https://www.congress.gov/115/bills/s2256/BILLS-115s2256is.pdf (accessed January 11, 2018).
2. Curtis Dubay, "The Senate Can Use Tax Extenders as an Opportunity to Improve the Tax Code," Heritage Foundation *Issue Brief* No. 4437, July 28, 2015, http://www.heritage.org/research/reports/2015/07/the-senate-can-use-tax-extenders-as-an-opportunity-to-improve-the-tax-code.
3. Molly F. Sherlock, "Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures," Congressional Research Service *Report for Congress* No. 41227, May 2, 2011, https://www.leahy.senate.gov/imo/media/doc/R41227EnergyLegReport.pdf (accessed January 11, 2018).
4. The Tax Extender Act of 2017, § 402.
5. Katie Tubb, "Georgia's Nuclear Woes Should Catch Congress's Attention," The Daily Signal, December 22, 2017, http://dailysignal.com/2017/12/22/georgias-nuclear-woes-should-catch-congresss-attention/.
6. As estimated from reports of the Joint Committee on Taxation. See Table 1.
7. Mark-up version of the Tax Cuts and Jobs Act from November 2, 2017, https://waysandmeans.house.gov/wp-content/uploads/2017/11/20171106-H.R.-1.pdf (accessed January 11, 2018).

TABLE 1

Energy Tax Extenders (Page 1 of 2)

ESTIMATED 10–YEAR COST OF 2–YEAR EXTENSION

Tax Credits and Other Provisions	Description	Cost (millions)
WIND, SOLAR, GEOTHERMAL, AND OTHER RENEWABLES		
Residential energy property (§25D(h))	30 percent of the costs including installation for small wind, geothermal, and fuel cell products (up to $500 per kilowatt for fuel cell products); credit reduced to 26 percent on December 31, 2019, and reduced to 22 percent on December 31, 2020	$1,100
Beginning-of-construction date for non-wind renewable power facilities eligible to claim the electricity production credit (§45(d))	Production tax credit per kWh for the first 10 years of service for open- and closed-loop biomass, geothermal, landfill gas, municipal solid waste, certain hydropower, marine, and hydrokinetic power facilities	1,356
Investment credit in lieu of the production credit and (§48(a))	30 percent investment tax credit including fiber-optic solar, small wind, and fuel cell property and 10 percent investment tax credit for microturbines and biomass combined heat and power; 30 percent investment tax credit reduced to 26 percent on December 31, 2019, and reduced to 22 percent on December 31, 2022	
ENERGY EFFICIENCY		
Certain nonbusiness energy property (§25C(g))	Ten percent of residential energy efficiency purchases up to $500 total (such as solar-powered water heaters, and energy-efficient windows, doors, roofs, and HVAC)	$1,331
Construction of new energy-efficient homes (§45L(g))	Up to $2,000 for builders of homes meeting energy efficiency and savings requirements or that meet ENERGY STAR requirements	760
Energy-efficient commercial buildings deduction (§179D(h))	Tax deduction up to $1.80 per square foot for energy-efficient property (lighting systems, building envelope, HVAC, ventilation, or hot water systems) in a commercial building to reduce energy consumption	324
BIOFUELS AND ALTERNATIVE FUELS		
Qualified fuel cell motor vehicles (§30B(k)(1))	$4,000–$40,000, depending on weight, for a fuel cell vehicle	$6
Alternative vehicle refueling property (§30C(g))	30 percent credit for refueling equipment for hydrogen, electricity, biodiesel, and other alternative fuels, up to $1,000 for individuals or $30,000 for businesses	112
Two-wheeled plug-in electric vehicles (§30D(g)(3)(E)(ii))	Ten percent of the cost up to $7,500 for battery-powered road vehicles like electric motorcycles	4
Second-generation biofuel producer credit (§40(b)(6)(J))	Up to $1.01 per gallon of second-generation biofuel (such as algae or wood-based fuels)	45
Biodiesel, renewable diesel, and alternative fuel tax credits and excise taxes (§40A, §6426(c)(6), §6427(e)(6), §6426(d), §6427(e)(6)(B))	Excise tax or tax credit of $1 per gallon of biodiesel, biodiesel mixtures, and renewable diesel, $0.50 per gallon of alternative fuel (such as compressed natural gas and liquid petroleum gas) excise tax credit	3,481

TABLE 1

Energy Tax Extenders (Page 2 of 2)

ESTIMATED 10–YEAR COST OF 2–YEAR EXTENSION

Tax Credits and Other Provisions	Description	Cost (millions)
BIOFUELS AND ALTERNATIVE FUELS (cont.)		
Special allowance for second generation biofuel plant property (§168(l)(2)(D))	Five-year depreciation schedule plus an additional 50 percent deduction in the first year of in-service second generation biofuel plants	—
CONVENTIONAL ENERGY		
Mine rescue team training credit (§45N)	20 percent or up to $10,000 for mine rescue employee training	$4
Election to expense advanced mine safety equipment (§179E(g))	50 percent deduction of the cost of advanced mine safety equipment in the year put in service, such as emergency communication technology or comprehensive air quality monitoring systems	—
Special rule for sales or dispositions to implement Federal Energy Regulatory Commission or state electric restructuring policy (§451(i))	Option for electric utilities to recognize gains over eight years from transmission sales that are used to invest in the producing, transmitting, distributing, or selling of electricity or natural gas	—
Production credit for Indian coal facilities (§45(c)(10)(A))	Production tax credit per ton of coal produced and sold for Indian coal production facilities	75
Oil spill liability trust fund (§4611(f)(2))	Tax on crude oil and petroleum products of 9–9.7 cents per barrel	n/a
Production credit for advanced nuclear power facilities (§45J(b))	Production tax credit of 1.8 cents per kWh for the first 6,000 megawatts of new nuclear capacity placed in service, available for the first eight years of operation; the credit is transferrable to public entities	400
Carbon dioxide sequestration credit (45Q)	$35 per metric ton tax credit for carbon capture used for enhanced oil recovery and $50 per metric ton tax credit for carbon capture geologic storage	n/a

NOTES: For costs labeled as "n/a," Joint Committee on Taxation provided no data. For costs labeled as "—" costs are negligible or zero. Cost for the non-wind renewable power facilities credit does not account for the phase-out proposed in the Tax Extenders Act of 2017, which was not available.

SOURCES:

- Joint Committee on Taxation, "Estimated Revenue Budget Effects of Division Q of Amendment #2 to the Senate Amendment to H.R. 2029 (Rules Committee Print 114-40), The 'Protecting Americans From Tax Hikes Act of 2015,'" JCX-143-15, December 16, 2015, https://www.jct.gov/publications.html?func=startdown&id=4860 (accessed October 18, 2016).
- Joint Committee on Taxation, "Technical Explanation, Estimated Revenue Effects, Distribution Analysis, and Macroeconomic Analysis of the Tax Reform Act of 2014: A Discussion Draft of the Chairman of the House Committee on Ways and Means to Reform the Internal Revenue Code," JCS-1-14, November 18, 2014, https://www.jct.gov/publications.html?func=startdown&id=4674 (accessed October 18, 2016).
- Joint Committee on Taxation, "Estimated Revenue Effects of H.R. 1, the 'Tax Cuts and Jobs Act,' Scheduled for Markup by the Committee on Ways and Means on November 6, 2017," JCX-46-17, November 2, 2017, https://www.jct.gov/publications.html?func=startdown&id=5026 (accessed January 9, 2017).

ed oil subsidies like the enhanced oil recovery credit and marginal well production credit. Although what constitutes an actual subsidy for the oil and gas sector is often overstated, these are targeted tax credits that specifically benefit the energy sector.[8] Yet the Tax Extenders Act fails to address these problems and further extends energy subsidies to a litany of other industries.

Another modification in the Tax Cuts and Jobs Act would have curtailed the abuse of targeted credits. Subsidized projects for the energy investment and production credits merely needed to have begun construction by the credit expiration date to qualify. The House version of the Tax Cuts and Jobs Act capped the production tax credit and required "a continuous program of construction" for a company to be eligible.[9] These small changes would have reduced the taxpayer burden by $12.3 billion over 10 years.[10] The Tax Extension Act only minimally improves the qualifications by requiring construction to begin by the credit's expiration in 2022 and to be online by 2024 in order to qualify.

Market Distortions from Tax Credits

Subsidies do no service to these energy technologies and companies. Based on political agendas rather than market realities, these tax credits for specific energy resources and technologies manipulate private-sector investment, provide unhealthy price advantages, distort incentives to innovation, and create competition for subsidies rather than competitive companies. What the market needs is more companies that are not dependent on federal policies and taxpayers in order to succeed.

Investment Manipulation. Private capital is limited. Technologies that do not receive subsidies appear more expensive, risky, or unpromising. In shifting the financial risk of energy projects indirectly to the taxpayer through the tax code, the government discourages private investments in projects that lack the government's blessing but may have more commercial promise. A dollar invested in a company benefiting from a tax credit cannot simultaneously be invested in another company, creating opportunity costs where potentially promising but unsubsidized technologies may not receive investment.

Government subsidies demonstrably distorted private-sector investment in the wind and solar energy industries. Dramatic boom and bust cycles have been created by expirations and extensions of the tax credits. Less competitive companies make up part of an inflated industry, which shrinks according to actual market demand once a tax credit expires.[11]

Price Advantages. Moreover, targeted tax credits provide one technology a government-created price advantage over an unsubsidized competing technology. Companies that do not receive any preferential treatment consequently will lobby for one, demanding a level playing field. The end result is a hodgepodge of tax credits that benefit select technologies that Members of Congress support because it particularly benefits their district, state, or political ideologies.

The case of renewable electricity tax credits is an excellent example of the distortions price advantages have had in electricity markets. In the intermediate to long run, the tax credits undercut electricity markets, making it difficult for otherwise affordable and reliable nuclear, coal, or natural gas power plants in particular to compete. Because wind-electricity producers can depend on a tax credit of roughly $22 per megawatt, they can bid negative prices into electricity markets and still make a profit.[12] Low natural gas prices and regulatory policies targeted at coal and nuclear power (like the Clean Power Plan) made the effects of subsidies for renewables more obvious.

8. Nicolas Loris and Curtis Dubay, "What's an Oil Subsidy?", Heritage Foundation *WebMemo* No. 3251, May 12, 2011, http://www.heritage.org/environment/report/whats-oil-subsidy.
9. Mark-up version of the Tax Cuts and Jobs Act from November 2, 2017, p. 262.
10. Joint Committee on Taxation, "Estimated Revenue Effects of H.R. 1, the 'Tax Cuts and Jobs Act,' Scheduled for Markup by the Committee on Ways and Means on November 6, 2017," JCX-46-17, p. 4, November 2, 2017, https://www.jct.gov/publications.html?func=startdown&id=5026 (accessed January 11, 2017).
11. U.S. Department of Energy, Energy Information Administration, "Wind Energy Tax Credit Set to Expire at the End of 2012," November 21, 2012, http://www.eia.gov/todayinenergy/detail.php?id=8870 (accessed January 11, 2018).
12. Jonathan A. Lesser, "Wind Intermittency and the Production Tax Credit: A High Cost Subsidy for Low Value Power, Continental Economics," Continental Economics, October 2012, http://www.continentalecon.com/publications/cebp/Lesser_PTC_Report_Final_October-2012.pdf (accessed January 11, 2018).

Distortion of Incentives to Innovation. Taxpayer-funded subsidies distort the incentives that drive innovation. Preferential tax treatment reduces the necessity for an industry to make their technology cost-competitive because the tax credit shields a company from recognizing the actual price at which their technology is economically viable. For economical projects, the tax credit is a windfall to the company. Even if they disagreed on principle, these competitive companies would be at a competitive disadvantage if they refuse to accept a credit.[13]

Competition for Subsidies. Lucrative tax credits for renewable electricity technologies have incited others in the energy sector to lobby for their own. In recent months, nuclear power companies have requested production tax credits from state and federal governments. Groups representing energy technologies like biofuels and fuel cells that were "orphaned" in the last tax extenders package have used this latest version to lobby for a re-extension of credits just like the ones granted to wind and solar companies. Subsidized industries continue to expend resources to lobby for more subsidies even as their technologies mature.[14]

Diverse and Competitive Energy Markets Need No Government Intervention

Ample opportunity exists for new, innovative technologies to enter the market. In 2015, U.S. energy consumers spent $1.1 trillion on energy, an average of more than $3,500 per person.[15] The profit incentive to supply affordable power or a competitive transportation fuel is enough to spur private investment without any preferential treatment from the federal government. Accordingly, companies spend billions of dollars in research and development (R&D) to lower costs, meet consumer demands, and capture larger market shares. The National Science Foundation estimates that R&D in electrical equipment, appliances, and components totaled $4.1 billion in 2013, the overwhelming majority of which came from the private sector. Automobile R&D totaled $16.7 billion, the vast majority again from the private sector.[16]

To encourage technological innovation, Congress should reverse any regulatory barriers that stifle new energy sources, not prop them up at the expense of taxpayers with targeted subsidies which are in fact barriers to entry for unsubsidized technologies and companies.

Using the tax code to drive energy revolutions ignores how energy markets function. As prices change, so does private investment. As gas prices change, for instance, private investments may concentrate more heavily on battery-, biofuel-, natural gas-, or propane-powered vehicles. Price increases incentivize increased oil exploration and production. Furthermore, if energy-efficiency financing for installing items such as new windows or better insulation will save families and businesses money, they can make those investments on their own. When the savings outweigh the costs, families secure reduced energy bills and businesses gain a competitive advantage.[17]

As prices fluctuate over the short and long term, the private sector will better meet customer energy needs without the federal government's thumb on the scale. The dynamic flow of investments and consumer behavior is best determined by the marketplace, not policymakers trying to predict or outsmart the market.

Brightening the Future for Energy Markets

Unlike targeted tax credits, some pro-growth tax policies do reward economic growth in a neutral way. Immediate expensing allows companies to deduct

13. Katie Tubb, "Solar's Future Is Brighter Without Investment Tax Credit," Heritage Foundation *Issue Brief* No. 4499, December 15, 2015, http://www.heritage.org/research/reports/2015/12/solars-future-is-brighter-without-investment-tax-credit.
14. This is even as some in these industries have argued the credits are no longer needed. Tubb, "Solar's Future Is Brighter."
15. University of Michigan, Center for Sustainable Systems, "U.S. Energy System Factsheet," Pub. No. CSS03-11, August 2017, http://css.umich.edu/sites/default/files/U.S._Energy_System_Factsheet_CSS03-11_e2017.pdf (accessed January 11, 2018).
16. National Science Board, *Science and Engineering Indicators 2016*, "Research and Development: National Trends and International Comparisons," Table 4–8, https://www.nsf.gov/statistics/2016/nsb20161/#/data (accessed January 11, 2018).
17. Katie Tubb, Nicolas D. Loris, and Paul J. Larkin Jr., "The Energy Efficiency Free Market Act: A Step Toward Real Energy Efficiency," Heritage Foundation *Backgrounder* No. 3144, August 17, 2016, http://www.heritage.org/research/reports/2016/08/the-energy-efficiency-free-market-act-a-step-toward-real-energy-efficiency.

the cost of capital purchases at the time they occur rather than deducting that cost over many years based on cumbersome depreciation schedules. The Tax Cuts and Jobs Act expands the 50 percent bonus depreciation for new capital investments to 100 percent (full expensing) for five years.[18]

Immediate and full expensing for all new plant and equipment costs—for any industry or type of equipment—would allow newer equipment to come online faster, which would improve energy efficiency and overall economic efficiency. The current system of depreciation raises the cost of capital and discourages companies from hiring new workers and increasing wages for existing employees. As Congress builds on the success of the Tax Cuts and Jobs Act, it should make immediate full expensing permanently available for all business investments, including all energy investments.

Free markets better allow for the supply of affordable energy, innovation, and a clean environment than any central planning approaches that manipulate how people produce and use energy. Allowing energy tax credits to expire at the end of last year was a step in the right direction. Congress should build on that momentum and the success of the Tax Cuts and Jobs Act to eliminate all targeted tax credits for all energy sources and technologies. Eliminating the preferential treatment in the tax code would drive energy innovation, competition, and job creation, resulting in a healthier, more robust energy sector independent of the federal government.

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18. Adam Michel, "Analysis of the 2017 Tax Cuts and Jobs Act," Heritage Foundation *Issue Brief* No. 4800, December 19, 2017, http://www.heritage.org/sites/default/files/2017-12/IB4800_0.pdf.