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R STREET POLICY STUDY NO. 117
November 2017

BRINGING TAX REFORM TO THE ENERGY SECTOR

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INTRODUCTION

For the first time in more than a decade, Congress and the White House are both controlled by Republicans, most of whom want to achieve the long-overdue goal of fundamental tax reform. That conversation has inevitable intersections with the yearslong battles, small and large, over various industry- and technology-specific provisions related to energy. From resource exploration and production, to research and deployment, to consumer purchasing behavior, energy tax policy is shot through with subsidies, carve-outs and preferences that make for a much-distorted market.

In a frustrating sign of policymaking dysfunction, these provisions often act at cross purposes to one another. For example, America's tax code famously includes a number of industry-specific policies that are highly beneficial to the oil industry, ostensibly to foster the production of domestic oil resources and help maintain access to low-cost transportation fuel. However, it also includes valuable preferences for the purchase of electric or plug-in hybrid automobiles, ostensibly to push customers to consume less of the very same oil that other tax policies aim to support.

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In each such provision can be found a symptom of the disease that has led to a government as expensive and powerful as the one we see today: concentrated benefits and diffuse costs. The benefits of any particular tax policy tend to flow to a distinct group, which will often mobilize its members to lobby in its support. Meanwhile, the costs—whether explicit (as in the case of outright subsidies) or implicit (as in the case of market distortions)—are borne by the American public as a whole. After playing out hundreds of times over the course of decades, the result is a tax code that looks less like a “level playing field” and more like a mountain range.

Such an ambiguous and complicated tax code is a result of dozens of policy interventions by Congress, each one theoretically justified by an appeal to nudge supply or demand of energy in one direction or the other. But as Tufts University professor Gilbert Metcalf has argued, the “arguments for using the tax code to affect energy supply and demand are poorly related to existing energy tax policy.”¹ In other words, while there are many *political* justifications for such preferences, there are few legitimate *policy* justifications for them. Despite claims to the contrary, energy preferences tend to be spectacularly inefficient and costly strategies that distort markets and impose significant costs on consumers.

Much of the attention on energy tax preferences has rightly focused specifically on the Production Tax Credit (PTC) and Investment Tax Credit (ITC) for various forms of renewable energy. These credits have allowed generators of designated forms of energy to claim a dollar-for-dollar reduction in tax liabilities based either on the amount of electricity generated or a percentage of the initial investment in the project. Such provisions, however, were designed to be temporary, and as of this writing, many of the credits have either expired or are set to be phased out over the coming years.

1. Gilbert E. Metcalf, “Federal Tax Policy towards Energy,” *MIT Joint Program on the Science and Policy of Global Change Report No. 42*, January 2007. http://web.mit.edu/globalchange/www/MITJPSPGC_Rpt142.pdf.

While the phase-out and elimination of the PTC and ITC is something to celebrate, it would be a mistake to see their repeal as the end of the story. In fact, even without these provisions, the tax code remains riddled with special preferences for different energy types, some of which are even more deeply embedded in the tax code.

At the same time, not every tax provision that affects energy sources in different ways can be said to be an illegitimate one. Some provisions actually reflect design elements derived from solid tax policy and thus eliminating them would either decrease the overall efficiency of the tax system or create new forms of lopsided treatment elsewhere in the code. Still other provisions may be better candidates for modification or expansion, rather than outright elimination.

Many politicians and analysts pay lip service to the notion of eliminating a wide range of tax preferences. For devotees of limited government, this is generally paired with a commitment to lower tax rates across the board to better facilitate economic growth. In an effort to help craft a vision of a truly free energy market, numerous proposals from nonpartisan research organizations and coalitions have expressed support for a wideranging effort to eliminate tax preferences, subsidies and distorting regulations.²

Such a goal is simple to articulate and comprises the following “best practices”: a tax code should not seek to influence energy markets unduly; it should be neutral as to specific energy technologies; and it should not advantage or disadvantage the energy sector as a whole over other sectors. Further, Congress should only act to tweak the energy-related portions of the code in the case of a significant market failure.

Despite the relative ease with which such goals can be articulated, they remain difficult to execute. While support for a “level playing-field” for all energy is reasonably widespread on the center-right, it also lacks the kind of details that might help bring it to fruition. After all, it is one thing to assert blithely that we should eliminate all preferences, but it is quite another to map out how that might be achieved, and to grapple with the difficult questions that lurk just beneath the surface.

Accordingly, the present study seeks to determine a more specific path from where we are today toward the level playing field that many seek, and to identify some of the obstacles that may be faced. Specifically, we will evaluate major energy tax provisions based on whether they single out a specific type of energy for preferential or negative treatment, or whether they apply legitimate tax principles. We will then apply that criteria to a selection of major energy provisions, and recommend modification or elimination of policies that

fail to meet the test. Finally, we will discuss the implications such a reform would have across various energy sectors.

The topic of energy preferences is so vast that even an attempt to give a broad outline could easily become unwieldy. As such, a few caveats about what this paper will not cover are warranted. First, this study is restricted to an examination of energy preferences in the tax code. There are, of course, many legal provisions outside the code that give special preference to particular forms of energy. For example, the loan guarantees for nuclear power plants contained in the Price Anderson Act apply different standards to nuclear plants than to other forms of energy.³ Further, even policies that may seem to have little to do with energy, as such, can still have a differential impact. Government funding for transportation infrastructure, for instance, arguably benefits energy types that rely on that infrastructure over types that do not. While a broader examination of these issues could be a fruitful area for future research, it is outside the scope of this paper.

Second, this analysis does not consider provisions in the tax code designed to correct for market externalities through the use of pollution taxes. The use of pollution pricing as a means to deal with environmental externalities raises a number of thorny issues, which are extensively discussed elsewhere. A tax targeted to a specific type of pollution, however, raises different issues than a tax provision meant to benefit or harm a particular type of energy. This is our focus here.

Finally, even with respect to the tax code, we do not aim to be 100 percent comprehensive, as there are simply too many specific provisions to allow for an exhaustive analysis of each in the space of a short paper. We do, however, hope to categorize many prominent tax policies and make recommendations for reform, where needed.

A RUBRIC FOR SOUND ENERGY TAX POLICY

While it is by necessity an oversimplification, we use a two-part rubric to evaluate tax policy in the energy sphere. The first determination is whether the provision is written in a technology- or activity-specific manner. There is a strong presumption against the wisdom of such overly specific provisions. Tailor-made tax policies tend to exacerbate distortions in investment and behavior. To single out one particular form of energy is almost always done to create a special advantage not shared by other forms of energy or by similarly situated nonenergy concerns. As such, we will recommend elimination of nearly all narrowly tailored drafted tax policy provisions, with few exceptions.

2. See, e.g., <http://www.greencissors.com>.

3. “Price-Anderson Act,” Green Scissors, 2017. <http://www.greencissors.com/program/price-anderson-act>.

If a provision is, in fact, drafted in a technology- or activity-specific manner, the second test we apply is to determine whether it furthers the goal of cost recovery. Genuine recovery of expenses is a core principle of fundamental, pro-growth tax reform because it encourages investment and simplifies tax compliance. If a specifically drafted tax provision does contribute to genuine cost recovery, this paper will recommend modification, rather than elimination.

SEPARATING THE WHEAT FROM THE CHAFF

Broadly speaking, energy-specific provisions in the tax code fall into five categories: tax-exempt bonding, advantageous categorization of income, deductions, credits and faster cost recovery. In each of these five categories, we will identify representative provisions, discuss their structural advantages or defects and make recommendations for a better policy approach.

Tax-advantaged bonding

In a few instances, Congress has created tax advantages associated with bonds floated to finance qualified energy or conservation projects. These advantages are generally associated with bonds to finance infrastructure projects, like electricity transmission lines, or various clean-energy projects, like wind farms. By reducing (or eliminating outright) taxation associated with the income derived from the investment, they give individuals an incentive to invest in such projects.

For example, taxpayers may take a credit against investment income earned from a so-called “Clean Renewable Energy Bond,” or CREB.⁴ These bonds are generally available to finance energy projects like wind, biomass or geothermal, among other technologies that have also benefited from a production tax credit. Though income derived from the investment is considered taxable to the individual bondholder, taxpayers receive credits that lower their overall tax burden. In the case of “new” CREBs, the credit can come in the form of a direct payment or refundable credit—more akin to spending than to traditional tax reduction.

On the margin, for the particular asset in question, this will attract additional investment than would otherwise be the case. This is, of course, why Congress enacted the preferences in the first place. However, this tax advantage poses several significant problems, which largely track the problems associated with tax-free municipal bonds.

First, and perhaps most obviously, the tax advantage could lead to substantial “overinvestment” in certain projects.

4. U.S. Dept. of Energy, “Clean Renewal Energy Bonds (CREBS): Program Info,” 2017. <https://energy.gov/savings/clean-renewable-energy-bonds-crebs>.

Projects that might not meet investors’ standards on their own merits might become attractive simply by virtue of the advantage they have been given by federal policy. Repeated many times over, the result is a level of economywide investment in tax-advantaged projects that is out-of-step with their actual worthiness.

Tax-advantaged investment is also an inefficient method to subsidize a particular outcome. The most efficient method, of course, is to provide a direct subsidy, while tax-advantaged investment is a highly indirect method. The amount of revenue foregone by the federal government is generally higher than the amount by which borrowing costs are lowered for the issuer. In other words, the financial value of this type of tax advantage ends up being split in some measure between bondholders (many of whom are high-income) and issuers.⁵ This phenomenon tends to obscure the value—or lack thereof—of such policies, which makes it difficult for policymakers and outside experts to evaluate their effectiveness.

As a matter of course, Congress should eliminate tax advantages for bonding related to energy. Doing so would place such projects on a more level playing field with other types of bonds and would generate investment levels more in-line with their actual social utility. If Congress seeks to subsidize certain energy projects or certain types of behavior, it should simply do so directly through its spending power. This would be a more efficient and transparent means to achieve a given policy objective.

Accordingly, the following provisions related to energy-specific, tax-advantaged bonds are recommended for elimination:

- *Tax-exempt bonds for public related energy projects* (26 USC § 103) — Tax-exempt government bonds that may be used for financing government-owned-and-operated electrical and gas-powered generation, transmission and distribution facilities.
- *Tax-exempt private activity bonds* (26 USC § 141, 142) — Tax-exempt bonds that may be used for energy-related projects related to the local furnishing of electricity and gas. Estimated cost for the 2016-2020 fiscal years: \$0.7 billion.⁶
- *New Clean Renewable Energy Bonds* (26 USC § 54C) — New CREBs may be issued to finance qualified renewable energy facilities that qualify for the tax credit under section 45(d) that are owned by a public

5. Scott Greenberg, “Reexamining the Tax Exemption of Municipal Bond Interest,” Tax Foundation, July 21, 2016. <https://taxfoundation.org/reexamining-tax-exemption-municipal-bond-interest>.

6. “Estimates of Federal Tax Expenditures for Fiscal Years 2016-2020,” Table 1, Joint Committee on Taxation, Jan. 30, 2017. <https://www.jct.gov/publications.html?func=startdown&id=4971>.

power provider, government body or cooperative electric company. Volume is limited to \$2.8 billion (as of May 2016, more than \$427 million remained available). Estimated cost for fiscal years 2016-2020: \$0.6 billion.⁷

- *Qualified energy conservation tax credit bonds* (26 USC § 54D) — These bonds must be used for “qualified conservation purposes,” which include rural development that involves renewable energy and technologies eligible for the production tax credit under 26 USC § 45(d) (among other purposes). Volume is limited to \$3.2 billion and is allocated by the U.S. Treasury Department in proportion to state populations. Estimated cost for the 2016-2020 fiscal years: \$0.3 billion.

Advantageous categorization of income

In several instances, Congress has used specialized treatment of certain sources of energy-related income in order to provide a tax advantage. To allow a taxpayer to categorize income under a more favorable system than would ordinarily be the case allows them to save significantly. It also makes it more likely that businesses and individuals will choose to engage in the activity in question.

One clear example of this specialized treatment is with so-called “master limited partnerships,” or “MLPs.”⁸ These are partnerships or limited liability companies that are traded in markets much like stock in a corporation. MLPs are taxed as partnerships, which avoids the financial and compliance burdens of the corporate income tax. A partnership only qualifies for MLP status if 90 percent of its income comes from qualified sources, which includes extractive industries like coal and oil, but does not include renewable industries. As a result, 133 MLPs had a combined market capitalization of \$500 billion, with energy and natural resource MLPs making up 81 percent of the total.⁹ Over the next 10 years, the treatment of MLPs that involve oil and gas are expected to reduce federal revenues by \$10.8 billion.¹⁰

The “dual capacity taxpayer” deduction and its application to oil and gas companies is another complex example.¹¹ This deduction allows oil and gas companies to deduct royalty payments made to foreign governments from their taxable income, just as they are able to deduct tax payments made to foreign governments from the same. This is contentious,

because it provides millions of dollars of tax reduction each year to large, successful oil companies.¹²

There is a very fine line between royalty payments and tax obligations, both domestically and abroad. Royalty payments are made in order to gain access to a specific economic benefit—in this case, access to oil reserves that can be produced and sold. Tax payments are not entirely dissimilar, and can be viewed as part of the cost of accessing a country’s labor and broader market.

Congress should end virtually all specialized treatment that allows taxpayers to categorize energy-related income beneficially. Such provisions reflect a perversion of sound tax policy, which seeks the creation of simple rules that apply broadly to all like activities.

To this end, the following specific provisions are recommended for elimination:

- *Oil-and-gas arbitrage bonds exemption* (26 USC § 148(b)(4)) — In the case of investments in natural gas supply contracts, the Energy Policy Act of 2005 carved out an exception that allows for the issuance of debt in order to acquire higher-yield debt.
- *Alternative fuel tax credit for natural gas* (26 USC § 30C) — Currently, natural gas qualifies for the Alternative Fuel Tax Credit.
- *Marginal wells production credit* (26 USC § 39(a)(3)) — Allows five-year carryback for marginal wells production credit.
- *Capital gains treatment of coal royalties* (26 USC § 631) — Allows coal companies to treat income from coal mines as a capital gain, which is taxed at a maximum 15 percent, instead of regular income, which is taxed at a higher rate.
- *Master limited partnerships* (MLPs) (26 USC § 7704, 851) — Partnerships or LLCs with interests that are traded in over-the-counter markets like stock in a corporation. MLPs are taxed as partnerships, which eliminates the corporate income tax for these entities. The code specifies that 90 percent of an MLP’s income must come from qualified sources, which include natural resource activity, such as coal, oil and natural gas extraction (but not renewable energy activity).
- *Dual taxpayer deduction* (26 USC § 901) — Allows oil and gas companies that operate overseas to classify royalty payments to foreign governments as taxes.

7. Ibid.

8. 26 USC §7704. <https://www.law.cornell.edu/uscode/text/26/7704>.

9. “Master Limited Partnerships for Oil and Gas Companies,” Green Scissors, 2017. <http://www.greenscissors.com/program/master-limited-partnerships-oil-gas-companies>.

10. Ibid.

11. 26 USC § 901. <https://www.law.cornell.edu/uscode/text/26/901>.

12. “Deductions for Foreign Tax - Dual Capacity,” Green Scissors, 2017. <http://www.greenscissors.com/program/deductions-foreign-tax-dual-capacity>.

This reduces their tax liability, because unlike royalty payments, foreign taxes are tax-deductible. Cost in fiscal year 2016: \$717 million.¹³

- *Tar sands oil and other liquid fossil fuels exempt from Oil Spill Trust Fund taxes (26 USC § 4612(a))* — Removal of the exemption would likely increase revenue to the fund by an estimated \$47 million a year.¹⁴

Deductions

Congress has also enacted numerous deductions specific to energy. A deduction allows the taxpayer to reduce the reporting of their total taxable income, which in turn reduces their final tax bill. While some deductions resemble the cost-recovery policies covered later in this paper, those discussed here are distinct because they are generally aimed at costs that otherwise would not be eligible for cost recovery via depreciation.

Energy-specific deductions tend to fall into two categories: those that are industry- or technology-specific, and those that are broadly available. As their name suggests, industry- or technology-specific deductions are provisions specially drafted to cover a particular type of energy or activity.

Perhaps the most prominent example is the “percentage depletion” deduction.¹⁵ This section of the Internal Revenue Code is written specifically to target an array of extractive industries for a tax advantage, most notably oil and coal. It allows companies to deduct a percentage of revenues associated with a mine or a well to reflect declining production over time. While the deduction is capped at the total income value of the mine or well, it is *not* capped with regard to the actual costs incurred.

As a result, some companies that benefit from percentage depletion may actually end up deducting more from their tax liability than the actual costs of production they incurred. This stands in contrast to “cost depletion,” in which a taxpayer recovers actual capital investment, and under which the benefit can never exceed the costs. Percentage depletion, therefore, tends to benefit producers much more significantly when prices are high.

Broadly speaking, these types of industry-specific deductions are poor policy and should be eliminated. If a cost incurred by an industry is significant and worthy of policy that allows for its recovery, such treatment should be consistent with all other industries and should be allowed for in

the ordinary depreciation and expensing guidelines of the Internal Revenue Code.

Deductions intended to favor U.S. manufacturing represent a somewhat tricky case. For example, current U.S. law provides domestic manufacturing deductions for coal mining, and for oil and gas production. These are designed to encourage American manufacturing. The estimated cost of these deductions for the fiscal years 2016-2025 is more than \$12 billion.¹⁶ Generally, protectionist measures like this are bad policy. However, it is possible to modify or expand such provisions to include all types of energy manufacturing. Thus, while these domestic incentives ideally should be eliminated, they can also be modified to be neutral related to the balance between energy and nonenergy concerns.

Accordingly, the following provisions are recommended for elimination:

- *Domestic manufacturing deduction for coal mining (26 USC § 199(c)(4))* — Allows the coal industry to claim an incentive for American manufacturers.
- *Domestic manufacturing deduction for oil and gas (26 USC § 199)* — Allows the oil-and-gas industry to claim an incentive for American manufacturers.
- *Special rule for oil and gas wells (26 USC § 461(i)(2))* — Accelerates deductions for oil-and-gas corporations.
- *Mining and solid waste costs deduction (26 USC § 468)* — Offers a tax deduction for mining and waste-site reclamation and closure.
- *Percentage depletion deduction for oil (26 USC § 611-13(A), and 291)* — Allows oil and gas companies to deduct 15 percent of their sales revenues to reflect the declining value of their investment, which, in some cases, leads to total deductions in excess of costs incurred. At a minimum, this provision should be capped to ensure the deduction does not exceed the cost basis. Cost in fiscal year 2016: \$1.3 billion. Estimated costs for the 2016-2025 fiscal years: \$14.8 billion.¹⁷
- *Percentage depletion deduction for coal and other minerals (26 USC § 613, and 291)* — Allows coal companies to deduct 10 percent of their sales revenue to reflect the declining value of their investment. In

13. Ibid

14. Jonathan L. Ramseur, *Oil Sands and the Oil Spill Liability Trust Fund: The Definition of 'Oil' and Related Issues for Congress*, Congressional Research Service, Feb. 15, 2017, 1.

15. 26 USC § 611. <https://www.law.cornell.edu/uscode/text/26/611>.

16. “Domestic Manufacturing Tax Deduction for Oil and Gas Companies,” Green Scissors, 2017. <http://www.greenscissors.com/program/domestic-manufacturing-tax-deduction-oil-gas-companies>; and “Domestic Manufacturing Tax Deduction for Coal and Other Hard Mineral Fossil Fuels,” Green Scissors, 2017. <http://www.greenscissors.com/program/domestic-manufacturing-deduction-coal-hard-mineral-fossil-fuels>.

17. “Excess Percentage Cost Depletion – Oil and Gas,” Green Scissors, 2017. <http://www.greenscissors.com/program/excess-percentage-cost-depletion-oil-gas>.

some cases, this leads to total deductions in excess of costs incurred. Cost in fiscal year 2016: \$260 million (includes uranium and methane). Estimated cost for the 2016-2025 fiscal years: \$2.6 billion.¹⁸

Credits

Unlike deductions, credits allow for a dollar-for-dollar reduction in a taxpayer's liability. Because they are powerful tools for managing tax burdens, the sad reality is that Congress has been very aggressive in using them to implement myriad pet policies in the energy sphere. Broadly speaking, energy-specific tax credits fall into two categories: investment supports and production supports.

Investment supports are credits designed to spur investment in a particular energy technology or particular type of energy company. The best example is the investment tax credit (ITC) for solar, an advantage designed to reduce tax burdens associated with solar power for both commercial¹⁹ and residential²⁰ users. Though the value of the credit is ramping down as a result of recent congressional action, until 2020, it will credit 30 percent of the cost of a solar-energy system back to taxpayers. While they have been fully allocated, another similar example is the advanced coal credit, which sought to spur investment in coal gasification and related technologies.²¹

In contrast, production supports are credits designed to reimburse a portion of the costs associated with energy production from various clean or renewable sources. The best-known production support is the tax credit of 2.3 cents per kilowatt-hour, available to producers of electricity from a range of sources that include wind, hydropower and geothermal, among others. This credit, too, was set on a slow phase-out, but projects initiated before the end of 2016 will be eligible to receive it.

Here, the following investment support provisions are recommended for elimination:

- *Energy research credit* (26 USC § 41) — A flat-rate credit of 20 percent for payments to energy research consortia—includes both fossil and renewable energy.
- Investment tax credit for geothermal (26 USC § 48) — A 10 percent investment tax credit is allowed for geothermal energy.

- Investment tax credit for solar (26 USC § 48, 26 USC § 25D) — Taxpayers can claim the investment tax credit for commercial (§ 48) and residential (§ 25D) solar energy facilities that begin construction before Jan. 1, 2020. If the construction of the facility begins in 2020, the credit is 26 percent, and 22 percent if construction begins in 2021. There is a permanent 10 percent commercial credit for solar energy property (§ 48).
- Advanced coal credits (26 USC § 48A, 48B) — Tax credits for the construction of advanced coal and coal-gasification plants. All the credits have been fully allocated, but Congress could allocate additional credit.
- Advanced energy *project credit* (26 USC § 48C) — Provides a 30 percent investment tax credit for qualified advanced-energy manufacturing facilities (capture and sequestration is included). All credits have been fully allocated.

The following production supports also are recommended for elimination:

- *Alternative fuel credit for natural gas* (26 USC § 30C) — Natural gas qualifies for an alternative fuel tax credit.
- Enhanced oil recovery (26 USC § 43) — 15 percent income tax credit for advanced oil recovery investments.
- Production tax credit for wind (26 USC § 45) — A 2.3 cent per-kilowatt-hour tax credit for electricity produced from wind energy facilities, the construction of which began in 2016. The credit is reduced by 20 percent for facilities that begin construction in 2017, 40 percent for facilities that begin in 2018 and 60 percent for facilities that begin construction in 2019. Taxpayers can claim the credit for 10 years after the facility is placed into service. The credit rate is adjusted for inflation. A 30 percent investment tax credit (26 USC § 48) in lieu of the production tax credit is allowed. Estimated cost for the 2016-2020 fiscal years: \$23.7 billion.
- Production tax credit for geothermal (26 USC § 45) — The production tax credit for geothermal expired Dec. 31, 2016. The credit was 2.3 cents per kilowatt-hour. Taxpayers can claim the credit for 10 years after the facility is placed into service. The credit rate is adjusted for inflation. A 30 percent investment tax credit (26 USC § 48) in lieu of the production tax

18. "Excess Percentage Cost Depletion -Coal and Other Minerals," Green Scissors, 2017. <http://www.greenscissors.com/program/excess-percentage-cost-depletion-fuels>.

19. 26 USC § 48. <https://www.law.cornell.edu/uscode/text/26/48>.

20. 26 USC § 25D. <https://www.law.cornell.edu/uscode/text/26/25D>.

21. 26 USC § 48A. <https://www.law.cornell.edu/uscode/text/26/48A>.

credit was allowed. Estimated cost for the 2016-2020 fiscal years: \$0.1 billion.²²

- Marginal wells credit (26 USC § 45I) — Allows a tax credit for production at marginal or inefficient wells.
- Credit for carbon dioxide sequestration (26 USC § 45Q) — A tax credit between \$10 and \$20 per metric ton of CO₂ sequestered. Expires once 75 million tons of CO₂ are stored. Tax credits are awarded on a first come, first serve basis.

Faster cost recovery

The tax treatment of a business' investments can prove complicated, to say the least. The subject is governed by a bureaucratic morass known as the Modified Accelerated Cost Recovery System (MACRS). MACRS lays out schedules roughly tracking the useful life of the asset in question, a span that currently ranges from three to 50 years, depending on the asset. Over the course of that statutorily defined schedule, a business will gradually deduct a portion of the value of that asset from its tax liability.

But some provisions specific to energy allow for faster, or even immediate, cost recovery (known as “expensing”). On the margin, this encourages more investment than would be the case if the asset in question were instead depreciated over the ordinary MACRS schedule. The financial impact of such a preference can be incredibly high, particularly in industries that require heavy capital investments.

One such example is the so-called “intangible drilling costs” (IDC) provision.²³ This policy allows smaller oil and gas producers to deduct certain “intangible” costs for oil production (expenditures on items with no salvage value) immediately. Larger integrated oil companies may deduct 70 percent of such costs in the year they are incurred and the remaining 30 percent over a five-year period. This preference reduces tax revenue by \$14 billion over a 10-year budget window, and represents a significant benefit to oil and gas producers.²⁴

Provisions similar to the IDC deduction include the refinery upgrade deduction, which allows for 50 percent of the cost of upgrading a petroleum refinery to be expensed in the first year,²⁵ and the expensing of capital costs in compliance with the Environmental Protection Agency's highway diesel

sulfur control rules, which allow small businesses to deduct 75 percent of such costs in year one.²⁶

These provisions do, in fact, provide a significant benefit specific to oil and gas companies in that they substantially improve their ability to recover costs and thus reduce their tax liability. The irony is that significant tax reform is likely to make our tax code as a whole look more like these provisions, not less.

The best course to modify such provisions is to “repeal them in letter, if not in spirit.” In other words, Congress should repeal each of them, but in the context of a reform effort that actually expands the application of the principles on which they are based. They should not impose upon oil and gas producers the same “MACRS misery” endured by other industries. Instead, they should bestow upon other industries the same tax benefit of more significant cost-recovery measures currently enjoyed by oil producers.

To some extent, the favorability of such a system would be dependent on just how capital-intensive (as opposed to labor-intensive, since labor costs typically already can be deducted from taxable incomes) the industry or activity in question is. Oil and gas is notoriously capital-intensive, requiring huge amounts of investment in exploration and site preparation before a single barrel of oil is pumped. Oil also requires large transportation and refining costs before a single barrel of oil is ready for sale at market and consumption.²⁷ Renewable energy, meanwhile, tends to be more labor-intensive.²⁸

At least to a first approximation, this suggests that traditional energy industries would benefit significantly from a system in which both labor and capital costs can be recovered against tax liabilities. Under current law, labor-intensive renewable energy companies are able to deduct a higher percentage of their total costs than capital-intensive traditional energy businesses. Under a reform plan like the one described here, the gap between them would close considerably, as cost recovery for capital expenses is expanded.

However, it is important that, in order to be eligible for cost recovery in the first place, a business must incur costs. If some types of energy production do not involve a particular kind of cost, they have a competitive advantage over types of energy production that do require such costs; one that is not eliminated by making costs tax-deductible.

22. “Estimates of Federal Tax Expenditures for Fiscal Years 2016-2020,” Table 1, Joint Committee on Taxation, Jan. 30, 2017. <https://www.ict.gov/publications.html?func=startdown&id=4971>.

23. 26 USC § 263. <https://www.law.cornell.edu/uscode/text/26/263>.

24. “Expensing Exploration Development Costs, Oil and Gas,” Green Scissors, 2017. <http://www.greenscissors.com/program/expensing-exploration-development-costs-oil-gas>.

25. 26 USC § 179C. <https://www.law.cornell.edu/uscode/text/26/179C>.

26. 26 USC § 179B. <https://www.law.cornell.edu/uscode/text/26/179B>.

27. “Oil and Gas Refining,” *Business and Economics Research Advisor* 5/6 (Winter 2005/Spring 2006). <https://www.loc.gov/rr/business/BERA/issue5/refining.html>.

28. “Benefits of Renewable Energy Use,” Union of Concerned Scientists, April 8, 2013. <http://www.ucsusa.org/clean-energy/renewable-energy/public-benefits-of-renewable-power#.wDkP7UuGPrC>.

In order to encourage businesses to invest, congressional leaders have been pushing tax plans that feature full expensing, or at least some significant compression of depreciation schedules.²⁹ At the least, a plan that applied expanded cost recovery to other energy activities beyond fossil fuels would put all energy on a level playing field.

The following tax provisions broadly fit into the category of cost-recovery or expensing. For outright expensing, either partial or full:

- *Expensing of capital costs to comply with EPA refinery rules* (26 USC § 179B) — A special deduction for certain oil refineries related to the cost of compliance with EPA low-sulfur pollution rules. A small business refiner may deduct 75 percent of the costs paid or incurred to comply with the highway diesel fuel sulfur control requirement.
- *Refinery upgrade deduction* (26 USC § 179C) — An option to expense 50 percent of the costs to upgrade a refinery.
- *Intangible drilling costs* (IDCs) (26 USC § 263 and 291) — Expensing of costs associated with exploring and developing immediately, rather than waiting for those activities to generate income. The IDC deduction allows independent oil and gas producers to deduct these costs immediately, rather than over the useable life of the well, which can be more than 20 years. Integrated oil and gas producers capitalize 30 percent of their IDCs and recover them over a 60-month period.
- *Environmental remediation expense deduction* (26 USC § 263) — A deduction for certain environmental cleanup costs.
- *Mining Exploration Deduction* (26 USC § 617) — Allows coal mining companies to deduct certain exploration and development costs.

And for accelerated depreciation or amortization:

- *Amortization of geological and geophysical expenditures* (26 USC § 167(h)) — Costs oil and gas companies incur when gathering data used to determine where oil and gas are located. Independent oil and gas companies are allowed to amortize these costs over two years, while integrated oil companies may amortize exploration costs over seven years. These shorter amortization periods allow smaller companies to recover costs faster.

- *Five-year MACRS cost recovery for solar* (26 USC § 168(e)(3)(B)(vi) and § 48(a)(3)(A) — A five-year recovery period is provided for energy property eligible for the ITC under § 48. This is not available for the nonsolar technologies under § 48 if their tax credit is expired.
- *Five-year MACRS cost recovery for wind* (26 USC § 168(e)(3)(B)(vi) and § 48(a)(3)(A) — A five-year recovery period is provided for wind energy property eligible for the ITC under § 48 and certain biomass facilities.
- *Five-year MACRS cost recovery for geothermal* (26 USC § 168(e)(3)(B)(vi) and § 48(a)(3)(A) — Since it qualifies for the ITC on a permanent basis, geothermal energy is eligible for a five-year MACRS recovery period.
- *Special depreciation for Alaska natural gas pipelines* (26 USC § 168) — Allows seven-year depreciation of Alaska natural gas pipelines, compared with the standard 15-year depreciation.
- *Natural gas gathering line depreciation* (26 USC § 168) — Provision that allows seven-year depreciation for natural gas pipelines. The Ending Polluter Welfare Act proposed a return to the standard 15-year depreciation.
- *Natural gas distribution lines* — The Energy Policy Act of 2005 shortened the MACRS recovery period for natural gas distribution lines from 20 years to 15 years.

CONCLUSION

Tax reform that roots out virtually all energy tax provisions except those designed for cost-recovery measures and that would be expanded to all industries would, of course, be hugely impactful. The question on the mind of many observers, though, is how it would situate renewable energy compared to traditional energy.

The simple answer to this question is that it is complicated. Eliminating a wide swath of renewable energy preferences—from production supports to purchase inducements to borrowing cost subsidies—would put an end to billions of dollars in tax benefits that have been used to help build entire industries like wind power. On the other hand, several of the major subsidies to renewable energy are already slated for expiration.

This type of reform effort would also dump most of the provisions commonly derided as “handouts” to big oil, including percentage depletion and various production incentives. It would not, however, eliminate all such provisions. Oil and gas would still be eligible to receive any broad-based

29. Aaron E. Lorenzo, “Full Expensing Forever? How Advocates Won in GOP Tax Plan,” *Bloomberg*, Jan. 12, 2017. <https://www.bna.com/full-expensing-forever-n73014449710>.

domestic manufacturing deduction and various accelerated cost-recovery measures would likely be expanded, rather than eliminated. The overall effect would be hard to calculate and could depend on which baseline scenarios are used.

More fundamentally, however, this is the wrong question. At some level, a tax plan of any kind will lead to somewhat differential effects on businesses, depending on their model. And it is not necessarily incumbent upon Congress to work obsessively to equalize impacts that are the natural result of different approaches to business.

As a comparative example, in the television industry, the two prominent service models are traditional cable companies and satellite providers. Cable companies deliver service to a subscriber's home via hard wires, usually strung on publicly owned utility poles or buried under public roads. This yields a complex set of tax and fee obligations. Satellite companies, meanwhile, launch rockets into space and then beam their service directly to a subscriber's home, where it is received by a satellite dish. As a result, they do not utilize public property in any significant manner when delivering service.

These two industries have long fought one another over appropriate tax treatment, with cable providers attempting to impose levies on satellite companies that would be roughly equivalent to the fees they pay to state and local governments. But it is not, and should not, be the job of legislators to make accommodations based on differential outcomes.

What is incumbent upon policymakers is to craft policy that ensures there is no differential treatment. By eliminating distorting tax preferences, Congress can make huge strides toward the more level energy playing field for which all sides strive. Toward this end, with the rubric laid out in this paper, policymakers can ensure that they do not throw out the baby with the bathwater as they embark upon this difficult task.

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