

Is Tax Law the Most Efficient Way To Promote Sustainable Energy?

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In this installment of the Star Forum, experts weigh in on the following question:

Is tax law the most appropriate and efficient means of promoting the use and production of sustainable energy?

Tax Notes would like to thank David K. Burton, a partner in Mayer Brown LLP's tax transactions and consulting practice and the leader of the renewable energy group in the firm's New York office, for providing this Star Forum question.

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William J. Volker — Efficiency Energy LLC

Yes, tax law is the most appropriate and efficient means of promoting the use and production of sustainable energy. The tax code can provide an effective carrot and stick to implement policy. Although not perfect, it provides an efficient means of promoting sustainable energy while Congress debates and industries fume. One example is the energy-efficient commercial building property deduction (section 179D).

Section 179D provides a deduction of up to \$1.80 per square foot of new construction as well as for lighting, HVAC, and envelope retrofits to existing buildings. For example, if a warehouse owner were to replace old, inefficient lights with new LEDs, in addition to the energy, operating, and maintenance savings, the owner would receive a tax deduction that further reduces the effective cost of the project. In addition to enhancing project payback, the deduction also indirectly prices the resulting emissions reduction.

Section 179D also provides a rare opportunity for non-taxpaying government entities to benefit from an IRS tax incentive. While government entities do not generally pay taxes, they may allocate the benefit to a taxpaying "designer" of the project and negotiate savings in return for that allocation. Similar programs exist with transferable utility rebates and other financial incentives that defray cost to building owners making qualified building investments.

Those additional savings can spur reinvestment and leverage recent improvements retroactively to add jobs, expand scope, reduce cost, and provide a private economic benefit to the designer recipient. Recent notable examples include One World Trade Center by the Port Authority of New York and New Jersey; the state university systems of Florida, Texas, North Carolina, Minnesota, and California; and the Miami-Dade County and Los Angeles Unified school districts.

The section 179D model could easily be replicated in support of other sustainable energy investments via the code. Tax law provides a ready structure to administer a direct pricing model, perhaps in conjunction with section 179D or other tax credit or benefit-enhanced financing mechanisms such as clean renewable energy bonds and qualified energy conservation bonds.

Despite being law for a decade, section 179D has seen challenges in awareness and use. Section 179D, like other energy-related tax programs, is subject to an almost yearly process of expiration and extension. The uncertainty has caused the incentive not to be in the original contracts for otherwise qualifying projects, resulting in confusion and non-uniformity in implementation, as well as creating opportunities for fraud, waste, and abuse. Permanence in the program would allow public and private building owners to incorporate the incentive into their project financing.

While the retroactive opportunity exists for projects completed in 2013 through 2016, the section 179D legislation is scheduled to expire at the end of this year. Permanently extending section 179D, as most recently proposed by Sen. Mark Kirk, R-Ill., as part of his Small Business Bill of Rights (S. 3291), or extending it for one to two years, as proposed by Rep. Alan Grayson, D-Fla., via H.R. 6360 and H.R. 6361, would benefit a wide range of public and

private constituents as an effective component of financing capital investments in energy efficiency and sustainable energy.



**Gregory F. Jenner —
Stoel Rives LLP**

Like most good lawyers, my stock answer to any question is “it depends.” My answer to the question posed here would be the same because the answer depends on the context. Although the current tax incentives may not be the best mechanism for promoting renewables, I would not repeal them without adopting a more efficient replacement first.

Most people with experience in tax policy would argue that in general, the tax system should be used to raise revenue and for nothing more. That is the premise on which we based the Tax Reform Act of 1986: Broaden the base by eliminating preferences, and lower the rates. You end up with the most efficient system possible. If government chooses to encourage (or deter) some behaviors, it can and should do so through other means and leave the tax system alone.

There are several reasons for taking that position. The first is the concept of horizontal equity, which essentially means that taxpayers with the same ability to pay should pay the same amount of tax. Any tax incentive given to a select class of taxpayers violates the concept of horizontal equity and raises questions about fairness.

Second is the drain on IRS resources from having to administer a government subsidy through the tax code. The role of the tax collector should be just that — collecting taxes. The IRS has no particular expertise in tailored incentives, and each new one added to the roster takes it further away from its core mission and competency. That is exacerbated when the IRS faces severe budget cuts rather than being given additional resources to meet its burden, as we have seen.

Finally, and I believe most importantly, tax credits are inefficient as a delivery mechanism for the intended incentives. Anyone directly involved in the tax equity process can testify to the misallocation of resources that results from the “monetization” of tax incentives.

Many, if not most, developers of renewable energy projects lack “tax appetite” — the ability to fully use the available tax incentives to reduce their taxes owed. As a result, to avoid losing the benefit of those incentives, developers go in search of

investors that are willing to receive their return in the form of tax benefits. Of course, tax equity investors are never willing to invest \$1 in return for \$1 of tax benefits, which means that some portion of the intended incentive goes to a financial intermediary instead of the intended recipient. It’s hard to justify on a policy basis diverting up to one-third of a government incentive to large financial investors instead of the renewables developer. Yet that is exactly what happens in the renewable energy industry.

So what are the alternatives?

1. Outright repeal. First, so there is no misunderstanding, the points made above are not a call (and should not be construed as a justification) for outright repeal of the incentives for renewables. I strongly believe, from a societal standpoint, that we need those incentives and do not support their repeal without a better substitute.

2. Refundable tax credits. Although still inefficient and economically distortive, refundable tax credits can reduce (but do not eliminate) the need for financial intermediation. The primary concern with refundable credits is that the developer still must find construction and bridge financing to fill the cash flow gap that exists before the IRS pays the refund generated by the credits. Under the section 1603 Treasury grant program (discussed below), we saw the cost of tax equity go down as the “term” of tax equity was shortened, indicating that a refundable tax credit may help reduce the misallocation in the current system.

3. Cash grants. Cash grants for specific energy projects were tried under section 1603 of the 2009 stimulus bill. The results were mixed, in part because of design flaws and, frankly, administration. But those mixed experiences could be used to inform a better-designed system, which could be far more efficient than the section 1603 program and tax credits.

4. Feed-in tariffs. Feed-in tariffs have been used in Canada and Europe, again with mixed results. The tariffs represent demand-side incentives, which, arguably, are better adapted to the marketplace than supply-side incentives such as tax credits. Feed-in tariffs, however, can be blunt instruments because the tariff provided can be wildly out of sync with the actual market cost of electricity, even considering externalities.

5. Carbon tax/cap and trade. In different ways, both a carbon tax and a cap-and-trade system would increase the demand for renewables by increasing the effective price for energy produced from carbon resources. Depending on its design, either could make renewables more competitive with traditional energy sources, and both systems have support in

the economic community. However, the politics of the two systems would make them difficult to enact.

6. Renewable portfolio standard. A final demand-side incentive, a renewable portfolio standard, is a simple mandate that some percentage of electricity come from renewable sources, such as solar power. Mandating increased use of renewables would force utilities to acquire more electricity from those sources while negotiating between competing potential suppliers to ensure that pricing is as efficient as possible. In many respects, a renewable portfolio standard allows the market to price renewables — and other energy sources — as efficiently as possible, in contrast to many feed-in tariffs and penalty taxes.

Bringing the discussion full circle, would I keep tax incentives if I had the freedom to design a better, more efficient system? Perhaps not. But if the choice is between tax incentives for renewables and no incentives at all, the choice is clear and easy.



Ryan M.F. Baron — Best Best & Krieger LLP

As a new presidential administration transitions into office, infrastructure investment is at the top of its priorities. A crucial piece of the infrastructure puzzle is the continued growth and development of clean energy and the best means by which to promote it.

The renewables industry is no longer nascent, with solar and wind more firmly established because of a patchwork of federal tax laws and state requirements for greenhouse gas reductions and renewable portfolio standards. Despite the significant growth, however, extensive questions remain about how clean energy can attain parity with traditional forms of energy and whether the tax code is the most efficient means by which to accomplish that.

The energy industry as a whole has been at the center of an age-old tension between free-market advocates and proponents of government regulation. For decades electricity and gas saw regulation dominate because of theories of natural monopoly. It was economically inefficient to construct capital-intensive facilities and provide low-cost power to ratepayers, so the costs and manners of development have been highly regulated. In the fuel sector, there's been much less regulation because of an abundance of fossil fuels, competition at the production level, and tax incentives for petroleum production. Clean energy seems to be caught be-

tween these two competing theories of regulation and at times suffers because of the lack of certainty in federal and state energy policies.

If clean energy is to be a viable industry over the long term, the fulcrum of its growth should continue to be federal tax law. Tax law provides an opportunity to compete on a level playing field with cheaper and more established technologies. The energy industry still faces natural monopoly issues, such as substantial barriers by new market entrants that must expend billions of dollars on construction of, for example, utility-scale plants that could compete with already established conventional forms of energy with lower commodity costs. Although renewable energy costs have fallen significantly, particularly because of technological improvements in photovoltaic systems, tax credits are still needed for renewables to compete with low-cost fossil fuel development. As the National Renewable Energy Laboratory noted in its February paper entitled "Impacts of Federal Tax Credit Extensions on Renewable Deployment and Power Sector Emissions" the production and investment credits have been economic drivers of solar and wind energy production. In fact, the organization found that credit extensions resulted in a higher rate of renewable capacity through 2020 than in a scenario without tax credit extensions.

Further, two of the biggest factors of uncertainty with any new technology are regulation and funding. Greenhouse gas laws and environmental regulations differ from state to state. Investors of a project in Texas may not consider building the same one in California because of higher regulatory transactional costs and the possibility of third-party litigation there, for example, from project opponents under California's Environmental Quality Act. Tax law, however, has the ability to transcend the differences in state regulations and provide more certainty to a project developer having to traverse the variances in state environmental laws. Moreover, a new technology or start-up company is often based on a great idea and an innovative engineering team, but suffers from a lack of production money and high capital costs. Tax credits and other favorable tax policies provide shareholders more certainty in developing a cost-effective technology and a company with the needed cash flow to continue to develop and implement the technology.

Lastly, tax law provides a driver for clean energy with state and local governments through the use of public-private partnerships. State and local governments tend to have large amounts of land and numbers of buildings within their control and a desire to maximize revenue. They've begun making buildings more efficient with solar car parking shades and energy and water improvements as they

see the long-term financial value of reducing electricity and gas overhead costs. With limited tax revenue and decreased budgets, however, large-scale government projects are more challenging. Thus, clean-energy projects are more viable when a government agency can partner with the private sector, which can take advantage of tax incentives.

Government regulation is still a necessary tool in addressing the externalities of challenging markets such as energy. If clean energy continues to be a federal priority, however, particularly as a driver for infrastructure and economic growth, federal tax law has proven it will be the most efficient means by which to grow this industry.



Frank Ackerman — Synapse Energy Economics

Tax law is a crucial part, but not the whole, of an appropriate, efficient strategy for promoting sustainable energy. A carbon tax is one way, and in fact the most efficient way, to put a price on carbon emissions. That price signal is essential, but it can't do the job

alone.

A carbon tax would make fossil fuels more expensive and renewable energy less expensive. That is necessary but not sufficient for the creation of a sustainable energy system. A carbon price should be accompanied by sensible regulations guiding industry toward low-carbon solutions; those regulations would be much easier to accept if there was a price on emissions.

Why put a price on carbon? In a market economy, countless decisions are based on relative prices of one alternative versus another. Currently, there is a modest price on some carbon emissions in California and an even lower price on power plant emissions in the Northeastern states of the Regional Greenhouse Gas Initiative. But in most of the U.S. economy, the price of carbon emissions is zero — or even slightly negative, depending on how you count subsidies to fossil fuels. Almost all market decisions are made in a context that includes no cost for the environmental impact of greenhouse gas emissions, and hence there is no incentive to reduce the damage caused by global warming. Economists are nearly unanimous in favoring a price on carbon emissions, as the simplest and most powerful incentive for emission reduction.

Why do it with taxes? Cap-and-trade systems can also be used to put a price on carbon. Both California and the Regional Greenhouse Gas Initiative price emissions via cap and trade, as does the European Union's Emissions Trading System. The differences between a carbon tax and a cap-and-trade system are less important than the similarities. The level of the carbon price is what creates the incentive for emission reduction, regardless of how it is achieved. And a tax (levied on upstream producers and importers of fossil fuels, not on end-users) would be easier and less expensive to administer than a trading system.

Interest in cap and trade stems from the assumption that new taxes are politically dead on arrival. The success of sulfur allowance trading in the 1990s, under the Clean Air Act, reinforced the belief that cap and trade was the market-friendly way to reduce emissions. Yet the times may be changing: Opponents of environmental regulation have demonized cap-and-trade approaches as taxes in disguise; meanwhile, British Columbia's carbon tax (with a price on emissions twice as high as California's) has led the provincial economy to grow a little faster than the rest of Canada's — and to the reelection of the politicians who introduced the tax. It could become politically acceptable to remember that a tax is the simplest and cheapest way to price carbon emissions.

Why do more than a carbon tax? A price on carbon alone is not enough to create a sustainable energy system. The success of wind and solar power, which are now competitive with other sources of electricity in the windiest and sunniest parts of the country, rests on decades of subsidies and research support, both here and in Europe. Even today, regulations determine the price that utilities pay for electricity from rooftop solar panels, a crucial factor affecting the growth of renewable energy.

Regulations, accompanying a carbon price, are even more important in reducing emissions from transportation. Fuel economy standards play a part, and could do much more, especially for trucks. Movement toward electric vehicles, expanded mass transit, or other non-fossil-fueled transportation options requires public planning and massive, coordinated investment in the right kind of infrastructure. The carbon price, or gasoline tax, needed to get people into electric cars is much lower if an extensive system of vehicle charging stations is already in place.

It would be very hard to do the job without a price on carbon — and very hard to do it with nothing but a price on carbon. There is no reason to fight this battle with either hand tied behind our backs. ■