



Zero Regrets Energy & Tax Policy

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As of the most recent U.S. DOE study, in 2013, the federal government was expending nearly \$9 billion a year in direct subsidies to renewable energy, plus \$1 billion a year for research & development, and another \$5.45 billion in tax credits.

In 2015, the CBO wrote that “The most efficient method for reducing emissions would be to set a price on fossil fuels that equaled the damage caused by the production and use of the fuel. Tax preferences and other subsidies for the development and use of favored technologies can also reduce emissions, but they are less cost-effective... the tax credit for the generation of electricity from renewable sources reduced CO2 emissions at an average cost of \$250 per ton.”

With all due respect to the CBO, ConservAmerica disagrees with the notion that tax preferences are less cost-effective than subsidies. In fact, we note that the CBO tied the two as if they were inextricably linked. They do not need to be linked; nor do we agree with the CBO that production tax credits need to be expensive and inefficient. What is expensive and inefficient is to continue to believe that the only approach to reducing emissions is thru subsidies and government-administered programs. We believe that making zero emissions energy production tax-free, on a permanent basis, will do far more to stabilize and encourage wind energy, solar energy, geothermal, and nuclear power.

ConservAmerica believes that a rational approach to reducing emissions can only be achieved through incenting innovation and investment by the private sector. Rather than use tax revenues collected from electric utility customers to fund government programs and agencies that, themselves try to determine the most efficient and innovative solutions, Congress should pass a zero emissions energy tax credit that eliminates taxes on the revenues earned from producing energy with a zero emissions approach (nuclear, wind, hydropower, solar, and geothermal in descending order of production). The benefits from that tax cut will not only incent the use of zero-emissions generation, the tax cut on investor-owned utilities will reduce the rates paid by U.S. households – and, vitally, the benefits of reducing electricity bills will much more dramatically impact and help lower and middle-income customers. Zero emissions tax credits will spread the benefits rather than concentrate them as has current solar installation in the U.S., where 95 percent of rooftop solar installations have gone on the homes of households in the top 60 percent of wealth.

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BACKGROUND INFORMATION

There are several elements affected, simultaneously, by America's current approach to energy policy:

1. Subsidies Exist.
 - a. The U.S. has been subsidizing favored energy sources for decades. There is only one rational way to evaluate the "value" of the subsidies – how much energy is produced, transmitted, or conserved by the entity, projects, or programs and how much money do they receive? We only look at concrete, actual subsidies – we do not look at the effect of depreciation (whether via MACRS for new-build renewables, because we do not believe that depreciation expense is a subsidy¹) or at depletion allowances (for oil and gas, which are functionally exactly like depreciation which is NOT a subsidy whether for a restaurant owner, a wind turbine manufacturer, or an oil and gas exploration company.)
 - b. States currently have 2,582 subsidies for renewables and energy efficiency.²
 - c. The federal government has 28 subsidies for renewables and energy efficiency.³
 - d. Subsidies always, inevitably, inexorably, and inefficiently are based on political leverage, connections, ideologies, and relationships. ConservAmerica is a conservative organization with a strongly pro-market perspective.
 - e. As just one, recent, example demonstrates: New York's Public Service Commission adopted a Clean Energy Standard on August 1, 2016 that provides nuclear power with a \$17.48/MWh subsidy, \$22/MWh for wind, and \$35/MWh for solar.⁴
2. Regulation Costs Consumers Money.
 - a. The U.S. Department of Energy spends about \$2 billion a year on its renewable and energy efficiency programs, but that's merely the cost of their regulation – not the total of the subsidies.
 - b. Furthermore, the above data only counts the knowable costs of DOE regulation, i.e., what is appropriated for DOE; Frederic Bastiat once wrote that, "In the economic sphere an act, a habit, an institution, a law produces not only one effect, but a series of effects. Of these effects, the first alone is immediate; it appears simultaneously with its cause; it is seen. The other effects emerge only subsequently; they are not seen; we are fortunate if we foresee them." What is unseen is usually more important than what is seen.
 - c. The last assessment of total federal subsidies was published by the Department of Energy in 2013, it found \$29.3 billion was flowing to energy subsidies thru direct payments, tax credits, and loan

¹ See, e.g., James C. Bonbright, "Principles of Public Utility Rates", 1961, Part Two, Chapter XIII, Section "ACCRUED DEPRECIATION DEFINED AS AMORTIZED COSTS AND NOT AS DECLINE IN VALUE", to wit: Depreciation "is designed to afford a company and adequate opportunity to recoup from consumers its investments in fixed assets during their estimated useful-service lives."

² <http://www.dsireusa.org/>

³ Ibid

⁴ Utility Dive, "New York PSC approves 50% clean energy standard, nuclear subsidies", August 1, 2016



guarantees. Of that total, only \$1.96 billion went to conservation programs – which benefit all customers by reducing total energy demand.⁵

- i. In 2013, \$8.63 billion went to direct expenditures by the federal government for renewables; \$5.45 billion went to tax credits, \$1 billion went to research and development, and \$8.6 billion went thru ARRA.
- ii. By way of comparison, nuclear received \$1.69 billion; coal received \$1.2 billion, and natural gas and petroleum received \$2.35 billion.
- iii. For those subsidies, whether direct expenditures, tax credits, R&D, or ARRA; in 2015 this was the fuel source mix for U.S. electricity:
 1. Coal = 33 percent
 2. Natural gas = 33 percent
 3. Nuclear = 20 percent
 4. Hydropower = 6 percent
 5. Renewables:
 - a. Wind = 4.7 percent
 - b. Biomass = 1.6 percent
 - c. Solar = 0.6 percent
 - d. Geothermal = 0.4 percent
 6. Petroleum = 1 percent
 7. Other gases = 1 percent

3. Tax Policy Has Huge Effects on Investment Decisions

- a. “Tax policy stands at the center of our effort to get public policy right for economic growth. Tax policy mirrors our view of the role of government in everyday life and parallels the level of spending and the diversion of resources to the state. It reflects as well our opinions about the social worth of achievement and financial prudence and shapes our practice of the principle of equality before the law and equal access to due process.”⁶

CONCEPTUAL STATEMENT OF POLICY

ConservAmerica believes that the only rational path forward towards a lower-emissions, more sustainable energy future for the United States lies in the adoption of tax policy that achieves the following goals:

1. Incent investment in cleaner energy; and allow the tax credits earned to be used to offset reliance on existing higher-emissions facilities as utilities move, inexorably, toward cleaner options.
2. Eliminate direct subsidies in all forms of energy. Provide zero emissions tax credits for non-emitting sources of electricity like nuclear, wind, solar, geothermal and hydropower and energy efficiency.

⁵ U.S. DOE, Direct Federal Financial Interventions and Subsidies in Energy in Fiscal Year 2013, published March 2015

⁶ “Why Taxes Affect Economic Growth”, The Heritage Foundation, William W. Beach



3. Reduce government spending and regulation of the energy industry and let the market do what it does best, invest in the highest returning options, fueled in part by tax policy that achieves a lower emissions future for the United States.

RATIONALE FOR POLICY

ConservAmerica recognizes the economic fact that externalities exist.⁷ ConservAmerica also recognizes that the major policy effort in America regarding GHG externalities is to “put a price on carbon.” 10 U.S. states and two Canadian provinces have established a price on carbon with the Regional Greenhouse Gas Initiative (RGGI) being the largest such effort.⁸ However, going forward the political headwinds and concerns about the potential for carbon pricing to be regressive on lower-income households seem to preclude a national carbon pricing scheme.

ConservAmerica believes that, rather than putting a price on carbon, and instead of continuing to develop new subsidies and new government programs and regulations to achieve a lower-emissions future; the U.S. government should use the most effective of all tools to incent and encourage change and innovation – providing financial incentives for innovation and investment by providing a Zero Emissions Energy Credit.

The American Public Power Association, relying on data from the U.S. Energy Information Administration, calculated that in 2013, electric revenues in the U.S. were \$377.5 billion. Of that total, \$222.6 billion was earned by investor-owned utilities that incurred tax expenses on those revenues. Their 2015 Net Income Before Taxes was \$40.4 billion, they paid taxes of \$12.3 billion.⁹

In the 33 U.S. states that do not have “electric retail choice”, regulated utilities recover their tax expenses from ratepayers in the regulated rate, the 17 states and the District of Columbia have electric retail choice and there is no regulatory provision for recovering tax expense – but it is certainly true that competitors include their tax expectations in the prices they charge customers.

With a Zero Emissions Energy Credit, the 19.4 percent of energy produced by nuclear power would be “tax free” and ratepayers, whether in regulated or retail choice states, would no longer pay for taxes on earnings from those energy sources. The 7.1 percent of energy produced by geothermal, solar and wind would not be taxed – we are assuming that the 26.5 percent of their energy from those sources conflates with their net income directly, \$3.26 billion would be removed from electric rates (they wouldn’t need to collect that tax burden thru rates).

The direct result for American households would be a reduction in their electric bills as tax burdens on electric providers fall – this would move the costs for investor-owned energy closer to those of public power, cooperatives, and

⁷ Externalities are an example of a market failure. If some cost or benefit is associated with an economic activity that is not borne by the agent undertaking the activity, that cost or benefit is called an externality. “Pollution as a byproduct of the production of a good is a negative externality associated with an external cost: the producer who emits the pollution is not suffering its costs (to the health of nearby people, for instance).” Garth Heutel, “Subsidies”, Georgia State University, 2014

⁸ RGGI (pronounced “Reggie”) was established by nine states in the Northeastern and Mid-Atlantic U.S. “RGGI’s first goal was to reduce carbon emissions from the power sector 10 percent by 2018. This reduction goal has already been reached; emissions are more than 40 percent below 2005 emissions.” Public Utilities Fortnightly, “Putting a Price on Carbon”, September 28, 2014

⁹ Source: EEI, 2015 Consolidated Income Statemen, U.S. Shareholder-Owned Electric Utilities

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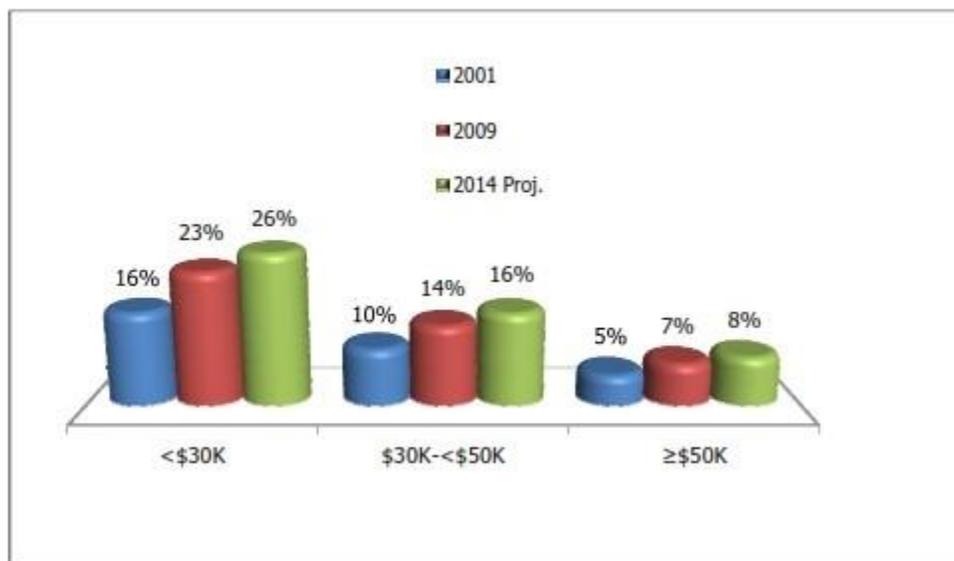
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municipal providers which are tax-exempt. The net result will be a significant increase in U.S. household financial capacity.

It is absolutely vital to understand that the impact of energy costs is dramatically different for lower-income and fixed-income customers.

Energy Cost Impacts on American Families, 2001-2014



Energy Costs as Percentage of Nominal After-Tax Household Income

Source: "Energy Cost Impacts on American Families, ACCCE, February 2014

Thus, what ConservAmerica is proposing is not only a market-based approach to incenting U.S. innovation and investment in reducing emissions; it is also a reduction in governmental regulation with its attendant costs.

And finally, it will directly put money into the pockets of Americans by reducing their electric bills – the net benefit of that final point accrues much more dramatically to the benefit of middle and lower-income households than to their wealthier counterparts.



STATISTICAL OVERVIEW OF U.S. ELECTRIC PROVIDERS
BASED ON 2014 DATA FROM U.S. ENERGY INFORMATION ADMINISTRATION

Shown in Descending Order by Total Sector Revenues

INVESTOR-OWNED ELECTRIC UTILITIES

- Entities 199
- Customer Count: 86,816,419
 - Median Customer Count: 169,855
 - Geometric Mean Customer Count: 78,814
- Sales (Megawatt hours): 1,926,805,312
- Revenues: \$207,051,497,300
 - Median Revenues: \$451,778,000
 - Geometric Mean Revenues: \$228,249,000
- Average Price: 11.87 cents/kWh

COOPERATIVES

- Entities 856
- Customer Count: 18,943,612
 - Median Customer Count: 12,851
 - Geometric Mean Customer Count: 9,503
- Sales (Megawatt hours): 428,439,745
- Revenues: \$44,555,361,000
 - Median Revenues: \$31,068,000
 - Geometric Mean Revenues: \$23,296,000
- Average Price: 11.26 cents/kWh

MUNICIPAL

- Entities 824
- Customer Count: 15,007,065
 - Median Customer Count: 6,204
 - Geometric Mean Customer Count: 6,682
- Sales (Megawatt hours): 395,141,132



- Revenues: \$39,882,627,000
 - Median Revenues: \$16,435,000
 - Geometric Mean Revenues: \$17,479,000
- Average Price: 10.25 cents/kWh

RETAIL ENERGY PROVIDERS

- Entities 79
- Customer Count: 6,510,516
 - Median Customer Count:
 - Geometric Mean Customer Count:
- Sales (Megawatt hours): 232,010,470
- Revenues: \$20,650,616,800
 - Median Revenues: \$,000
 - Geometric Mean Revenues: \$,000
- Average Price: 9.20 cents/kWh

POLITICAL SUBDIVISION

- Entities 80
- Customer Count: 3,860,714
 - Median Customer Count:
 - Geometric Mean Customer Count:
- Sales (Megawatt hours): 108,683,872
- Revenues: \$9,610,740,300
 - Median Revenues: \$,000
 - Geometric Mean Revenues: \$,000
- Average Price: 9.19 cents/kWh

STATE

- Entities 10
- Customer Count: 1,339,689
 - Median Customer Count:
 - Geometric Mean Customer Count:
- Sales (Megawatt hours): 37,397,920
- Revenues: \$4,577,538,000
 - Median Revenues: \$,000
 - Geometric Mean Revenues: \$,000



- Average Price: 9.69 cents/kWh

OTHER OWNERSHIP

- Entities 44
- Customer Count: 1,364,370
 - Median Customer Count:
 - Geometric Mean Customer Count:
- Sales (Megawatt hours): 26,480,141
- Revenues: \$2,913,421,100
 - Median Revenues: \$,000
 - Geometric Mean Revenues: \$,000
- Average Price: 0 cents/kWh

FEDERAL

- Entities 26
- Customer Count: 35,226
 - Median Customer Count: 8
 - Geometric Mean Customer Count: 12
- Sales (Megawatt hours): 31,539,363
- Revenues: \$1,295,432,400
 - Median Revenues: \$3,772 ,000
 - Geometric Mean Revenues: \$2,683,000
- Average Price: 5.29 cents/kWh

BEHIND THE METER

- Entities 94
- Customer Count: 167,282
 - Median Customer Count: 100
 - Geometric Mean Customer Count: 105
- Sales (Megawatt hours): 1,766,191
- Revenues: \$228,192,600
 - Median Revenues: \$460,000
 - Geometric Mean Revenues: \$299,000
- Average Price: 14.49 cents/kWh