

A Proposal for a State Carbon Fee in Nevada
Presented to the Technical Advisory Committee on Clean Energy Sources of
The Nevada New Energy Industry Task Force
May 16, 2016

Our Recommendation

- o **A study by the Governor’s Office of Economic Development of how a carbon fee or tax might work in Nevada, including potential carbon reductions, fiscal effects, equity issues, design of program, administration of program, analysis of potential amount of fee/tax.**

Background

- **The Toiyabe Chapter of the Sierra Club, The Progressive Leadership Alliance of Nevada (PLAN) and the University of Nevada Reno Student Environmental Club wish to present the idea of a state-level carbon fee** because we are convinced that this is an effective tool that can be used, along with the other ideas presented to this committee, to get us to a 100-percent carbon-free economy more quickly in order to help avert catastrophic climate change.
 - o A Nevada fee on carbon would raise the price of fossil fuels, sending price signals which would incentivize energy efficiency, and make in-state renewables relatively less costly than the fossil fuels.
 - o If in addition carbon fees are used to fund energy efficiency and renewable energy across our modern infrastructure, Nevada could move even more quickly to a clean energy economy.
- **What is a carbon fee?**
 - o A carbon fee is “a simple and transparent way to create a price for emitting carbon dioxide (and possibly other greenhouse gases) to the atmosphere. .. it establishes a price for what economists call an “externality” - a cost to society that is not paid for by either the producers or the direct consumers of a commodity. A carbon tax requires emitters of carbon dioxide to pay for their externality costs in the same way that we currently have dumping fees for solid waste. ..This “polluter pays” approach has been useful in reducing other types of pollution, and the basic motivation of a carbon tax...is the same.”
 - o The price signals created by a carbon fee would shift consumer demand, drive new investment, and encourage technology development toward less emissions-intensive goods and services, lowering emissions throughout the

economy over time, and push Nevada to use its abundant renewable energy sources rather than out-of-state carbon-intense sources.

- **Is it a carbon FEE or a carbon TAX?**
 - A study recently completed for the Commonwealth of Massachusetts asked the question, “Is the carbon price that we consider more appropriately termed a fee or a tax?... Several sources provide documentation that appears to support terming a revenue-neutral carbon price a fee rather than a tax. According to a U.S. Supreme Court case, the Washington State Department of Revenue, the Massachusetts legislative drafting manual, and two private think-tanks, reasons for terming a governmental charge a fee include:
 - The primary purpose is not to raise revenue
 - The charge is collected from particular entities in order to defray the cost of benefits received by those entities
 - The charge is a penalty, imposed to punish behavior
 - The revenue will not be used for general public purposes, but rather to regulate the behavior of those paying the fees

- **How would it work? Broad outlines of a carbon fee for Nevada**
 - We offer **two options** to consider:
 - a carbon tax in which tax proceeds would be used for development of a clean energy economy in Nevada
 - Or, a revenue-neutral carbon fee-and-rebate in which fees or a portion of fees would be rebated to businesses and households.
 - **The amount of the fee would be based on the greenhouse gas density** of the fossil fuel (see rough calculations below)
 - **We propose that fossil fuels will be taxed when they enter the state to be used in the state** - an “upstream” system
 - The Massachusetts study offered **several design criteria for a carbon tax that would work in that state. Nevada might consider similar criteria, or others more relevant to the structure of our own state economy.**
 - High potential to reduce GHG emissions - to be worth the effort of implementing it, a carbon tax should make a major contribution to achieving significant GHG reductions

- Economy-wide - cover all major fuels and products having GHG emissions.
 - Revenue-neutral - the Massachusetts Department of Energy Resources specified that the Massachusetts study should assume that all revenues from the tax would be returned to the public.
 - Nevada could make the choice whether to institute a revenue-neutral fee, or to designate that all or a part of the revenue funds clean energy and energy efficiency projects in the state, including, for example, significant improvements to public transportation, funding of clean energy research and development at our universities, and an energy efficiency retrofit program for low income housing.
 - The tax should be phased-in over time so that households and businesses have time to consider options for reducing their costs and adjusting their energy (carbon) use, including implementing energy efficiency and renewable energy measures and reducing their purchases of motor fuels.
 - Social equity - both costs and other impacts may be distributed unevenly across geographic locations, income groups, and economic sectors. The Massachusetts study offers a tax design that corrects such inequities through how the tax revenues are returned to the public.
 - Protect business - mitigate any economic dislocation that could be caused by competition from firms in untaxed jurisdictions
- o At what rate is carbon taxed in other jurisdictions?

| Selected Carbon Tax Rates per Ton CO ₂ (existing and proposed) | | |
|------------------------------------------------------------------------------|----------|-------|
| State/Province | Starting | Final |
| BC | \$ 10 | \$ 30 |
| Massachusetts | \$ 10 | \$ 40 |
| Washington | \$ 15 | \$ 25 |

- What are the potential effects of a state carbon fee in Nevada?
 - o Carbon reduction
 - “Average annual BC per capita emissions in the with-tax period were 12.9 percent less than in the pre-tax period; this percentage drop was three-a-and-a-half times as great as the 3.7 percent fall in per capita emissions for the rest of Canada between the same periods.”

- o **Keeps jobs and dollars in state**

- Since all our fossil fuels come from out of state, we are essentially shipping our dollars out of state. A shift to energy efficiency and Nevada-produced renewable energy brought about by the carbon fee would keep Nevada dollars and Nevada jobs in state.

- Here is a quick calculation of the amount of carbon fee that might be collected from fossil fuel imports to Nevada. In 2014, according to the EIA, Nevada consumed:

- o 44.7 million barrels of petroleum (1,877.4 million gallons)

- o 250.9 billion cubic feet of natural gas

- o 3.8 million short tons of coal

- Using CO₂ factors from the Energy Information Agency : (https://www.eia.gov/environment/emissions/co2_vol_mass.cfm)

- o Petroleum: ~21 pounds CO₂ / gallon

- o Natural Gas: 117.1 pounds CO₂ / thousand cubic feet

- o Coal: 4,631 pounds CO₂ / short ton

- That leads to 2014 Nevada emissions from :

- o Petroleum: 19.7 million tons CO₂

- o Natural Gas: 14.69 million tons CO₂

- o Coal: 8.79 million tons CO₂

- If Nevada places a @ \$10/ton fee on carbon, revenues would be roughly

- o Petroleum: \$197 million

- o Natural gas: \$146.9 million

- o Coal: \$87.9 million

- o **Total: \$431.8 million/year**

- o **Shifts from taxing the “good” to taxing the “bad”**

- A revenue-neutral carbon fee could shift our taxation system from taxing what we want (jobs and business) to taxing what we don't want (carbon emissions). As a carbon tax is implemented, business taxes could be lowered .
 - If the carbon fee is NOT revenue neutral, it would offer a significant funding source for clean energy and energy efficiency improvements in the state, putting Nevada on the fast track to a carbon-free future.
- **What other states are doing/have done.**
 - o **British Columbia:** According to the Massachusetts study, “The BC Carbon Tax is considered one of the best-designed environmental policies in the world. The tax is coupled with targeted rebates to low-income and “remote” households, alleviating concerns over differential harm to certain parts of society. Revenue from the tax is also used to reduce rates of corporate and personal income taxation, a design that is aimed at getting a “double dividend” from reducing GHG emissions as well as an increase in economic output. The tax applies an identical rate to all emitters, ensuring that greenhouse gases are reduced at the lowest social cost.”
 - o A carbon pollution tax initiative will be on the November 2016 ballot in **Washington State**. If the initiative passes the state will place a carbon tax ”on fossil fuels and electricity from coal and natural gas, with the goal of slowing global warming, while reducing taxes on sales and manufacturing and keeping total tax revenue flat overall.”
 - o The **Massachusetts** legislature is currently considering a carbon dioxide emissions charges bill. In the proposed bill, the commissioner of energy resources will collect carbon dioxide emissions charges on the distribution or sale of carbon-based fuels.
- **Questions and concerns**
 - **How is this different from a cap-and-trade system?**
 - o From the World Resources Institute: “While the effects of comparably stringent carbon taxes and cap-and-trade programs are virtually identical in theory, a number of practical differences exist between the two policy instruments. A carbon tax is in some ways simpler than a cap-and-trade program. A tax does not require the government to allocate or conduct auctions for emissions allowances, or monitor the trading of allowances, and regulated entities do not need to participate in auctions or secondary markets for allowance trading.”
 - **Wouldn't this put Nevada at a competitive disadvantage to states that don't have this tax?**

- o If it is a revenue-neutral fee, Nevada could lower other business taxes, hence improving the business climate and drawing more businesses to the state.
- o If not revenue-neutral, part of the new revenue raised from the fee could be used to offer incentives to draw cutting-edge clean energy businesses to the state.
- **Wouldn't this be a drag on our economy?**
 - o "The carbon tax does not appear to have impeded overall economic activity in British Columbia. Although GDP in British Columbia grew more slowly during 2008-2013, the period with the carbon tax, than in 2000-2007, the same was true for the rest of Canada. From 2008 to 2013, GDP growth in British Columbia slightly outpaced growth in the rest of the country, with a compound annual average of 1.55% per year in British Columbia, vs. 1.48% outside of the province."
 - o In addition, since the BC carbon tax is revenue neutral, BC now has the lowest income tax rate in Canada and one of the lowest corporate rates in North America.
- **A carbon tax is regressive and will hit our low-income households the hardest.**
 - o Many carbon taxes are designed to be revenue neutral, with special features to minimize burdens on low-income citizens. In BC for example, there are targeted rebates to low-income households.
 - o If a Nevada system used the revenues to develop energy efficiency and clean energy, a large portion of these projects could be designed to serve low-income families, for example, home energy efficiency retrofits in low-income and multi-family housing, and public transportation improvements.
- **Why do we need a carbon fee if we have other policies to develop clean energy and move to a carbon-free economy?**
 - o A carbon fee would jump-start other clean energy initiatives. For example, when the costs of energy from fossil fuels rises with a carbon fee, customers would be incentivized to purchase electric vehicles, use more public transportation, purchase more energy-efficient appliances, and so on, thus maximizing utilization of other programs already in place to encourage energy efficiency and clean energy.
- **Conservative objections to a carbon tax:** unilateral action produces little climate benefit; a carbon tax would expand the size of government; a carbon tax is regressive; adaptation and geoengineering are preferable to emissions constraint; economists cannot design a carbon tax that does more good than harm; the legislative process cannot deliver a carbon tax worth embracing; promoting a carbon tax puts conservatives on a slippery political slope that they will be unable to successfully navigate
 - o The above list of conservative objections is from a March, 2015 paper by Jerry Taylor of the Niskanen Center, *The Conservative Case for a Carbon Tax*. In the paper, Taylor both lays out the objections and addresses them. <http://www.ourenergypolicy.org/wp-content/uploads/2015/08/Analysis-of-a-Carbon-Fee-or-Tax-as-a-Mechanism-to-Reduce-GHG-Emissions-in-Massachusetts-14-063.pdf>

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