



Studies of carbon pricing I'd like to see

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I am fully in support of a study of carbon pricing. In fact, I will go about three or four steps further and say that I think we need to have a permanent capacity to do due diligence on all proposed climate programs and policies, as well as to coordinate, monitor and report on them.

Accelerating adoption of low-carbon alternatives is the primary purpose of putting a price on carbon dioxide. It can most cost-effectively be accomplished with a suite of complementary programs and policies. Pricing carbon to reconcile the differences between the private and social costs of fossil fuels could enhance the effectiveness of those programs and policies, and vice versa.

My Approach is influenced by my experience working with dairy farmers to get loans. The bankers evaluated both operational and financial plans, looking for whole-farm cash-flow budgets that generated positive cash flow while conservative on income and liberal on expenses. I'd like to see similar due diligence applied to all methods of accelerating adoption of low-carbon alternatives – carbon pricing, education, financial assistance, regulation, R&D and anything else.

I will focus on carbon pricing now, however. In this environment of suspicion and fear of carbon pricing, a poorly planned or executed carbon price could set back the cause of pricing carbon and our transition to a low-carbon society. A duly diligent evaluation will provide an opportunity to strengthen a pricing plan. It will require a group of people with the technical expertise to evaluate assumptions and project results. We need people who could do things like estimate the impact of switching from fossil to renewable energy (as in the Total Energy Study) on revenues from energy taxes and fees, taking into account the greater energy efficiency of heat pumps and electric motors than furnaces and internal combustion engines, as well as tax rates for different energy sources.

Impacts of replacing 2015 fossil energy with renewable energy on energy tax and fee revenue

Energy used	Fossil	Renewable
Fuel Tax revenue	\$ 9.85	\$ 9.53
Energy Efficiency revenue	\$ 58.0	\$ 138.91
Motor Fuel Tax revenue	\$ 118.64	\$ 0.13

I see impacts of carbon pricing on:

- Public support for pricing
- Economic growth
- Cost of transitioning to low-carbon society
- Distributions of income and of cost of transition across income levels
- Speed of transition to low-carbon Society

For carbon pricing to succeed, we will need to manage these impacts. Interactions among them exist. Using revenue from the price to improve one impact means less revenue is available for others. For example, spending money on finding and developing low-cost, low-carbon alternatives means less money is available to return to Vermonters.

Him What I would want studies to tell me about carbon-pricing plans (The laundry list)

In general

How Vermonters value the impacts listed earlier

How alternative features of carbon pricing can affect the impact of the carbon price

What conditions will influence the ability of carbon pricing to have positive impacts in the categories above

How large the impacts are

Who bears the costs and who reaps the benefits

More specifically

Comparisons of the long-term costs and benefits of mitigating, adapting recovering from climate change with and without pricing carbon.

Best practices for carbon pricing:

- Price schedules
- Coordination of complementary pro-climate policies and programs

How Vermonters would divide the revenue from pricing carbon among possible uses

This is what I got when I asked people at my unrepresentative polling place during the election of November 2014 how they would like the revenue from carbon tax spent

Use of carbon-tax revenue	Share allocated
Paying for public transportation & other infrastructure	24%
Paying for weatherization and other energy-efficiency measures	25%
Paying off government debt	7%
Paying rebates to households	10%
Reducing business taxes	5%
Reducing personal taxes	9%
Supporting public sector development and dissemination of low-carbon innovations	20%
Total	100%

For potential uses of carbon-price revenues, and other pro-climate policies and programs:

- Cost-benefit ratios, taking into account the social cost of carbon and other externalities
- Cost effectiveness – cost per tonne of CO2 equivalents eliminated
- Impacts on gross state product and employment

How the carbon price affects Vermonters' financial condition and capacity to adopt low-carbon alternatives over time, by income level, recognizing variability in income and expenses, and private and social resources available

Changes in the distribution of the carbon-price burden across income groups over time

Projected cost of transition for households by income class and for Vermont, as a whole

How conditions, programs, policies and other environmental factors will affect the impacts of pricing carbon

What conditions, programs, policies and other environmental factors are required for success of carbon pricing, what will enhance its success and what will cause it to fail