

Emissions pricing:

Reframing coal and climate policy in Ontario



Dr. Stephen Hill, PEng

Environmental & Resource
Studies, Trent University

stephenhill@trentu.ca

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My proposition:

- ✦ a provincial carbon tax merits consideration as an alternative to ban on coal in electricity:
 - will send a broad market signal to reduce GHGs
 - will stimulate meaningful public dialogue about climate policy

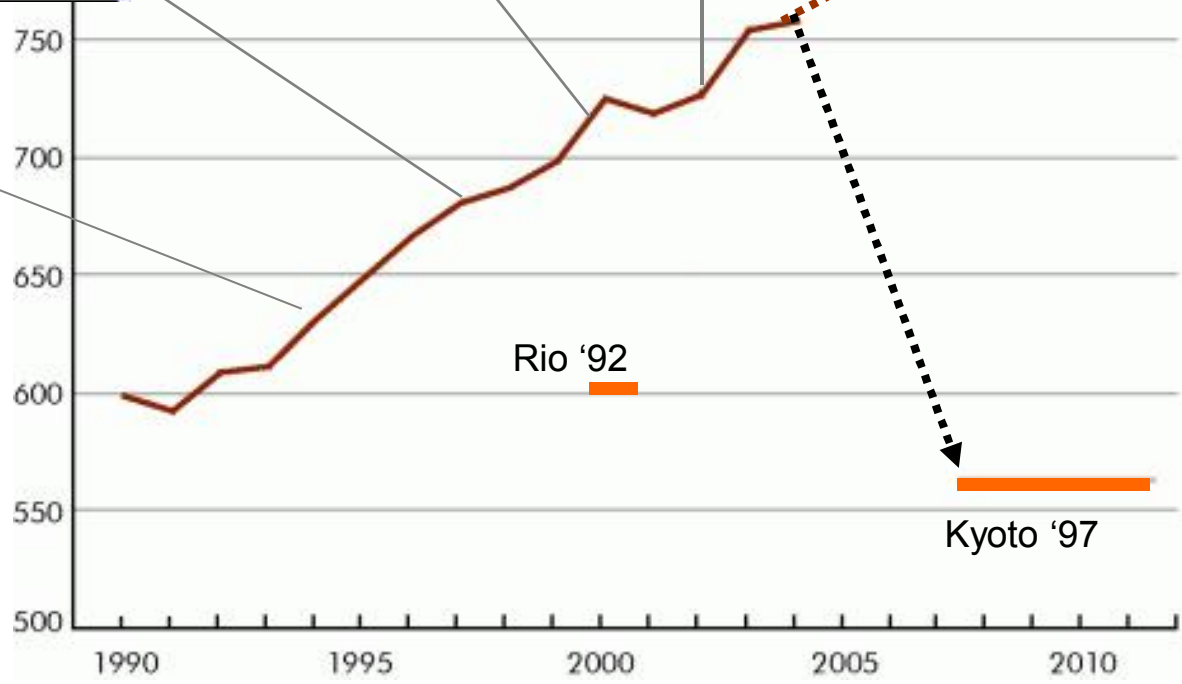
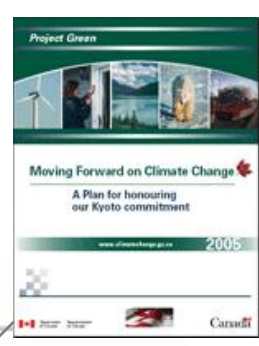
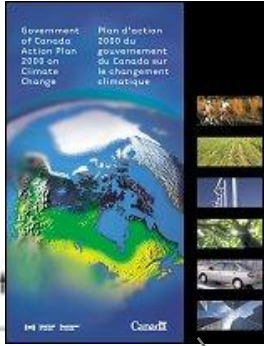


Climate policy to date has been a failure

- ⊕ last 18 years of climate policy has revolved around action-packed rhetoric and toothless policies
- ⊕ communication about climate risk has been entirely insufficient
 - public does not grasp the deep emission cuts required (i.e., $2^{\circ}\text{C}/450\text{ppm} \approx 80\%$ cuts within next 30-50 years).
 - policy debate has focused on Kyoto 'targets' at the expense of meaningful discussion about what we can do to reduce our GHGs & prepare for changing climate.
 - public has been led to believe that climate policies will require only a small inconvenience to their lifestyles



Canada's National Climate Change Process



Future of coal in Ontario

The state of art for dialogue on climate policy in Canada



Why is Alberta Opposed to the Kyoto Protocol?

The U.S. won't ratify it.
Neither will Australia.
India and China don't have reduction targets.

We can do better.

Ratifying the Kyoto Protocol on climate change will have a profound effect on the lives of all Canadians. Albertans will be hit the hardest. You could pay more income taxes, worry about job security, and pay more for utilities and food. There is a better way. We need a made-in-Canada solution that balances greenhouse gas emissions reductions with continued prosperity.

Why is Alberta Opposed to the Kyoto Protocol?

The Oil Industry told us to be.
The whole Tory Cabinet drives SUVs.
Ralph is sober, and he's mad at the world.

We want to do nothing.

Ratifying the Kyoto Protocol on climate change will have a profound effect on the lives of all Canadians. I fear droughts, lower forest fire and more stable weather. Kyoto will allow for increased GDP growth and create jobs in renewable energy. We hate it. We need a made-in-Alberta solution that balances greenhouse gas emissions reductions with higher corporate profits.



<http://simondanner.blogspot.com>

Future of coal in Ontario



Ban on coal proving difficult to implement

- ⊕ ban would improve air quality and reduce GHGs, albeit not until 2014
- ⊕ politically expedient but practically difficult
 - supply mix challenges
 - ban sends no conservation signal to electricity consumers
 - ban applies only to electricity
- ⊕ other policy options to improve air quality and reduce GHGs are available. They merit consideration.



Effective policies for dealing with climate risk are well known:

- ✦ namely, a broad market signal that increases the price of GHG emissions
 - cap & trade
 - carbon tax

“nations can most effectively implement their climate policies through market mechanisms, such as carbon taxes or the auction of emissions permits.” - 1997 statement signed by 2500 economists including 8 Nobel laureates.

“An effective carbon-price signal could realize significant mitigation potential in all sectors.” IPCC AR4 WGIII (high agreement, much evidence)



other measures (information, voluntary programs, subsidies), while not unhelpful, have failed to achieve GHG reductions much beyond BAU

“Voluntary agreements between industry and governments are politically attractive... [but the] majority of agreements have not achieved significant emissions reductions beyond business as usual.” IPCC AR4 WG III

- clean energy subsidies (e.g., corn-based ethanol) appear to have largely benefited those special interests with effective lobby campaigns
- subsidies often require government to pick technology ‘winners’ well in advance



The nuts and bolts of carbon taxes

- ⊕ high taxes on emissions of greenhouse gases will:
 - encourage CO₂ reduction through
 - investment in energy efficiency and demand reduction and
 - switching to low-carbon fuels (renewables, CCS, nuclear)
 - provide a revenue stream for government to
 - reduce corporate or personal tax
 - provide funds to moderate economic & social impacts of carbon taxes
 - fund green initiatives



Ontario government appears to be looking at some form of emissions trading

“McGuinty went to the meeting touting his plan for the provinces to set up a national “cap and trade” system – perhaps centered at the Toronto Stock Exchange – that would limit greenhouse gas emissions.” Toronto Star. May 2, 2007.

- carbon taxes have thought to be politically impossible...
- while mechanisms for implementing emissions trading programs have been discussed at length in Canada, nothing has yet been implemented.
- ⊕ It is worth rethinking the desirability of emissions trading for Ontario



A cap & trade policy has drawbacks

- ⊕ equity of burden (we should all do our part) vs. equity of responsibility (polluter pays).
 - emissions trading systems have, to date, been designed to share burden (i.e., no one should be unfairly penalized) through grandfathered allocations and intensity-based caps.
- ⊕ emission trading systems are
 - complex & opaque,
 - require regional (e.g., RGGI) & sectoral coordination & therefore slow to be implemented, and
 - open to manipulation by those who will be regulated:
 - EU experience: lenient caps reduce program effectiveness
 - Canadian experience: \$15 cap, technology fund, Ontario claim to GHG reductions from coal phase out in RGGI
- ⊕ emissions trading systems are poorly understood by the public and, as they begin to understand them, they don't like them (see next slide)



Sustained public support for a policy is required

- ✚ what are the attitudes of the public toward emissions trading & carbon tax? (Hill, unpublished data)
 - most people know little to nothing about emissions trading
 - emissions trading often viewed as “cheating” or getting out of responsibility to act
 - international emissions trading often viewed unfavourably
 - concerns about the efficacy of emissions trading
 - in contrast, most people are quickly able to grasp the notion of carbon taxes
 - support is a function of perceived risk of climate change
 - despite double dividend, preference for targeting carbon tax revenue toward “green” projects rather than revenue recycling



Contrasts: carbon taxes have advantages over emissions trading

cap & trade

- ⊕ complex & opaque
- ⊕ slow to implement
- ⊕ not readily understood by public - general opposition to it
 - public debate will focus on nature of policy tool (a distraction)
- ⊕ limited coverage, open to manipulation by industry

carbon tax

- ⊕ administratively simple, transparent
- ⊕ can be quickly implemented & modified
- ⊕ intuitively understood by public - public acceptance of carbon tax a function of perceived risk of climate change
 - public debate will focus on policy goal, not policy tool
- ⊕ broad coverage



Initial considerations for implementing a tax

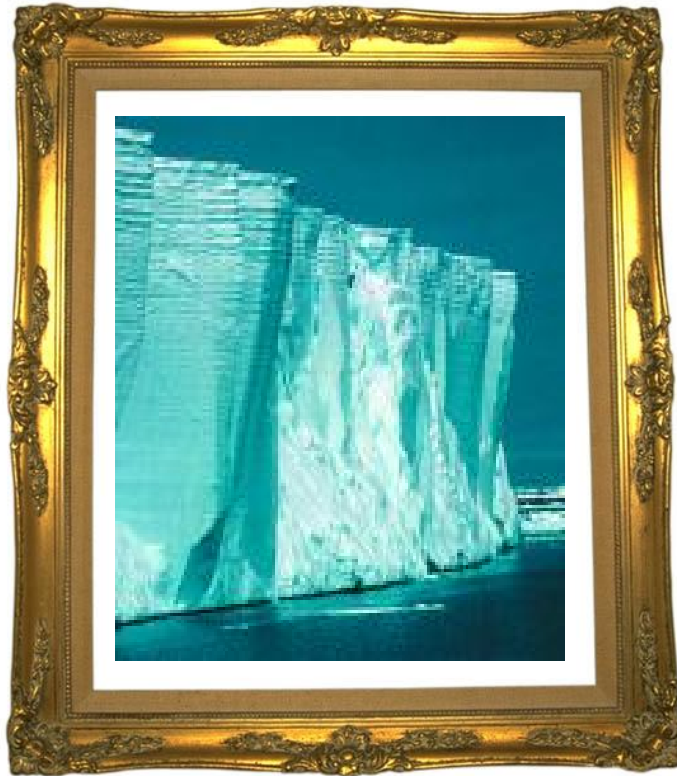
- ⊕ applied to domestic consumption, not export.
- ⊕ apply as far upstream as possible
- ⊕ requires some transition support for regional/sectoral economic impacts
- ⊕ what is the appropriate tax rate?
 - it depends! Anywhere from \$10-100 should be considered.
 - say, for straw man argument, an immediate rate of \$15, rising 5-10%/year.
 - IGCC/CCS: 140 coal generation facilities proposed in the US; 14 IGCC; 1 IGCC/CCS.
 - “CCS systems begin to deploy at a significant level when CO₂ prices begin to reach approximately 25–30 US\$/tCO₂eq.” - IPCC CCS Special report (2005)
- ⊕ Quebec example. \$200 million. Focus on provincial consumption, therefore costs passed onto consumers (CPPI estimates increase of 1.5 cents/litre)



In summary

- ⊕ greenhouse gas policy goals for Ontario ban on coal could be achieved more efficiently
- ⊕ carbon tax, long thought to be politically impossible, may actually be politically preferable to emissions trading
 - more easily understood by public
 - public knows little about emissions trading and tends to dislike it as they learn about it
 - a carbon tax would encourage public debate about policy goal rather than policy means
- ⊕ carbon taxes have practical advantages over emissions trading





Thank you

