Carbon Standards: What is the right choice for the US & Canada? The Academic Perspective

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California's Low Carbon Fuel Standard: A clever solution to a difficult problem?

- What's wrong with the usual policies?
  - Carbon tax: nobody likes taxes…
  - Cap and Trade:
    - Huge debates about cap, allocations, and enforcement
    - Price variation makes investment uncertain

- What is the Low Carbon Fuel Standard (LCFS)?
  - The LCFS regulates the average carbon intensity of fuels.
  - Carbon intensity based on life cycle assessment
    - e.g., syncrude from tar sands has high carbon emissions rate

What's wrong with the LCFS?

- Three ways industry responds to a LCFS:
  - Decrease production of high carbon fuels (good)
  - Increase production of low carbon fuels (bad)
  - Reduce carbon emissions intensities (good)

- Good things *not* encouraged by an LCFS
  - car pooling, reduced driving, higher fuel efficiency, etc.

- Holland et al (2007) argue that an LCFS is ~5 times more costly than a tax or C & T at achieving a carbon emissions target
  - Other problems: reshuffling, monitoring, etc.

What's the right choice?

- An LCFS is not the right choice
  - (unless coupled with a gas tax)
- Carbon tax or "cap and trade" are good solutions
  - Many questions: banking? indexing? international cooperation? enforcement? spillovers? China/India?
- Some other good ideas:
  - Start now! (How about a modest carbon tax now?)
  - Work to understand uncertainty better: What should we do if climate begins to change suddenly?