

Canada's Sustainable Energy Top Ten

Accomplishment is achieving a 'Stretch Target'. Be it for corporate results or athletic performance the competitor always wants to exceed expectations. In a business reality of carbon constraint, risk and innovation, what are the 'Stretch Targets' for Sustainable Energy? What **Sustainable Energy Top Ten** options can Canadian corporations and governments act on today? Here are SEE Insight's thoughts, in no particular order of priority.

- #1. *A New Canada Building Code:*** A more energy-efficient national building code has been developed, but has yet to be fully implemented. Canadian provinces and territories can 'walk the talk' of climate change and energy efficiency by reaching an accord to put the Code into effect almost immediately. Several provinces have already made this smart decision.
- #2. *Enhanced Vehicle Fuel Efficiency Standards:*** The Canadian government has announced a long-term intent to adopt enhanced fuel efficiency standards. If only the implementation timeline was not so protracted. Watch for a new American President to announce the rapid introduction of enhanced fuel efficiency standards in their 2009 Inaugural Address. Canada should signal to our US partners now that a speedier push for more fuel efficient cars and trucks is a shared interest.
- #3. *Waste Heat Recovery Demonstrations:*** For a northern climate, Canada wastes a lot of energy, usually a consequence of industrial and institutional operations. Canada can learn from the Scandinavians who excel at recovering waste heat. A public-private partnership effort to demonstrate waste recovery technologies would be a workable, cost-effective program.
- #4. *Large Scale Carbon Sequestration Pilot Project:*** Carbon emissions from coal combustion and oil sands production are already huge and growing rapidly. Mitigating these environmental impacts is of critical importance to Canada's carbon account and energy exports. Industry groups have been advocating for a major carbon sequestration pilot project. But companies have failed to take leadership of this opportunity, preferring to push for governments to foot most of the bill. Governments have been dodging the question. Clearly there is a pressing need for high-level industry-government dialogue, and a shared risk approach for a large-scale Canadian carbon sequestration pilot project.

- #5. Oil & Gas Production Productivity Commitment:** Most Canadian oil and gas companies are generating solid returns (though less spectacular than some observers suggest). Industry executives could demonstrate their sustainability ethic by making a public commitment to improved oil and gas productivity. The public response to such an initiative would be very positive.
- #6. Waste Biomass-to-Energy Conversion Priority:** There's a buzz around BioFuels. But it would be wise to think twice before jumping into even larger scale grain-based BioFuels. There are major environmental and economic concerns to consider. However, waste biomass from the forests products, agricultural and municipal sectors are another story altogether. It is these domains of biomass-to-energy potential that should receive top priority for public funds that have been allocated to BioFuels R&D and innovation.
- #7. National Rapid Transit Initiative & Urban Planning:** The Canadian government and several provincial governments have been proactive in supporting public transit. That's good. The downside is these initiatives tend to have two fundamental weaknesses. Firstly, they have been one-time funding allocations, not an institutional change to the fiscal environment for rapid transit. Secondly, funds provided are not conditional on cities altering urban planning principles, nor do they require that transit-friendly policies (e.g. restrictions on automobile use in downtowns) be introduced along with new rapid transit infrastructure. A *National Rapid Transit Initiative* establishing a long-term financing mechanism (e.g. municipal bonds) coupled with urban sustainability practices makes all elected officials winners.
- #8. Continental Clean Coal R&D:** To some, Clean Coal is an oxymoron. But the scale of coal reserves in Canada and globally, and the environmental impact of coal combustion, makes the holy grail of Clean Coal a worthwhile goal. Large-scale demonstration of coal gasification technologies will be very expensive (projected at \$2-3 billion). It makes sense for such R&D to be a focus for Canada-US innovation collaboration, involving both the public and private sectors.
- #9. Supporting Aboriginal Communities to Partner in Clean Energy Projects:** Canada has vast untapped potential for hydropower, wind energy and biomass conversion. Many of these resources are: on Aboriginal Lands; subject to land claims; or, represent areas of traditional use by First Nations, Métis and Inuit communities. Government support for these communities to become partners and collaborators in clean energy projects has a solid rationale, and can unlock huge clean energy reserves.
- #10. 'Open Market' Access and Pricing for Renewable Energy:** Provincial and territorial governments across Canada have begun opening access to market for renewable energy through their control of energy boards, market operators, utilities, etc. But major barriers still remain. Valid utility concerns for price and reliability of supply need to be balanced with the imperative of bringing cleaner power resources on line sooner rather than later. That should be on the agenda of provincial and territorial Premiers.

Variations of SEE Insight's **Sustainable Energy Top Ten** have been brought forward by a diverse set of organizations including: the Canadian Council of CEOs, the Pembina Institute, The Conference Board of Canada, and the Suzuki Foundation.

In a recent report by McKinsey and Company and the US Conference Board entitled, *Reducing US GHG Emissions: How Much and at What Cost?* The authors identified five *clusters of opportunity* including: energy efficiency in buildings, improved vehicle efficiency standards, targeted measures for energy-intensive industries, carbon sinks and less carbon intensive electricity.

*There's an emerging consensus about a Canadian **Sustainable Energy Top Ten**.*

Sounds like a plan.

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