

Canada needs a national energy strategy

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TORONTO—Canada needs a national energy strategy—a real national energy strategy that moves Canada to a low-carbon economy, with much greater focus on clean energy and energy efficiency rather than a narrow focus simply on oil and gas.

The Obama administration, with its Clean Power Plan that seeks to reduce carbon from electric power generation 30 per cent by 2030 from 2005 levels, has put Canada on the spot and highlighted the Harper government's own weak environmental record. But so far, the opportunity from a low-carbon economy has attracted little political or industry attention so far. That has to change.

The urgent and expensive challenge the world faces is set out in a new report from the International Energy Agency, its World Energy Investment Outlook. We need to look at its 450 Scenario, which spells out the investments the world needs to make between now and 2035 to help limit the increase in the average world surface temperature to no more than two degrees Celsius above the level in 1870, the era of the First Industrial Revolution. This is essential if the world is to avoid catastrophic climate change later this century, scientific experts have warned. Canada has signed on to this target but is not doing much to help achieve it.

The IEA estimates that the world would need to invest \$53-trillion in non-carbon forms of energy and in energy efficiency, as well as much cleaner uses of fossil fuels and increased overall energy supply, between now and 2035 if this climate change target is to be met.

Current energy strategies, set out in the IEA's business-as-usual or New Policies scenario (it projects future investment based on policies in place in early 2014 along with commitments announced, but not yet implemented) would require an investment of \$48-trillion through to 2035. However, this would push us above the climate change target, the IEA warns, hence the urgent need to pursue decarbonisation much more aggressively. The 450 Scenario costs \$5-trillion more, but would yield major cost savings in energy consumption, since the world would consume less oil, natural gas, and coal.

By pushing so hard for oilsands development, Canada risks stranded investments in oilsands plants, which fail to recover their costs or yield an expected rate of return. In the 450 scenario, the IEA estimates there could be \$300-billion of stranded energy assets worldwide, with the highest cost producers the most vulnerable. Recently, Total E&P Canada announced it was putting on hold its planned \$11-billion oilsands project because of high costs.

The climate challenge is compounded by the fact that between 2010 and 2035 the world will add 1.7 billion people, while the forecast average economic growth of 3.5 per cent a year will mean the world economy will double in size by 2035. Absent major gains in clean energy and energy efficiency, global demand for conventional oil, gas, and coal energy would soar.

The issue will come to a head next year when the 21st UN Framework Convention on Climate Change Conference of the Parties (COP21) takes place in Paris. Participating countries, including Canada, are committed to achieving a binding agreement, taking effect in 2020, which would put the world on the path to

holding the world average temperature increase to no more than two degrees Celsius. The IEA says this will require a global price on carbon for power generation and industry “at a level sufficiently high to make investment in low-carbon technologies attractive.”

Yet with a new national energy strategy that focussed on the needed shift to a low-carbon economy, there could be major opportunities for Canada in developing clean energy and energy efficiency systems and technologies for a huge global market in the decade ahead. But that would require an aggressive effort in Canada to build up companies with global potential by ensuring they can develop technologies and gain experience in a growing Canadian market. A new national energy strategy would create a market for clean energy and energy efficiency technologies. A key ingredient would be a price on carbon, since this would lead to greater demand for low-carbon technologies and provide an incentive for entrepreneurs to pursue new technologies and investors to back them.

In a new report, Ottawa-based Analytica Advisors finds that clean technology sectors most closely linked to clean energy and energy efficiency—the bio-refinery, power generation, energy infrastructure/smart grid, energy efficiency/green buildings and transportation sectors—had \$6-billion in sales in 2012, with most companies also exporting. The 390 companies had a total of 23,700 employees and spent \$727-million on research and development. With an aggressive strategy to develop the sector, the report said, Canada could turn this into a \$17-billion industry within a decade.

But as the Analytica Advisors report also showed, Canadian companies on average are small—with average revenues of \$15.4-million—and under-capitalized. Many of them have relied on funding from Sustainable Development Technology Canada, a federal fund designed to help Canadian companies advance clean technologies. But the report urges greater efforts to achieve at least 20 Canadian companies with revenues of \$100-million or more by 2022, with some on the path to \$1-billion in revenues, giving them the scale and scope to be real global players.

It’s time for Canada to shift from its role as an outlier in the global challenge on climate change and seize the opportunity—and the jobs and companies that will be created or grow as a consequence—to become a leader in helping to meet the world’s urgent need for a low-carbon economy, based on clean energy and energy efficiency. This will need both political and industry leadership and a great deal of innovation. It’s time for us to seize the opportunity and to combine good economic policy and good environmental policy.

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