The U.S. must go green to gain energy independence. Canada must gain independence to go green

by Gordon Laxer

Political Economy Professor
University of Alberta
gordon.laxer@ualberta.ca

Paper presentation to the Conference on

Rethinking Extractive Industries. Regulation, Dispossession and Emerging Claims

York University, Toronto

March 6, 2009

[Mar 4, 2009]

The United States must go green to gain energy independence, whereas Canada must gain independence to go green. Those statements are the core of my paper which shows the contrast between being an energy empire and an energy satellite. In the paper, I compare the energy and environmental policies of the U.S. and Canada, with a particular focus on the divergent language used in each country to frame the debates. I emphasize oil and to some extent natural gas, but not the various forms of power that generate electricity.

It is fitting that my paper is in a conference on extractive industries, because the Alberta tarsands comprise the world's biggest mining extraction site. I am proud to be on this panel on resource control and energy sovereignty with researchers from Ecuador and Cuba, whose countries are pursuing energy independence. I wish I could say the same about Canada.

The big story on energy in this decade is the resurgence of resource nationalisms and popular resistance to a global commons of resources, which really means the big powers claiming other peoples' oil. State-owned companies have exclusive access to 77% of the world's proven conventional oil reserves[1]. Government-ownership means nationally-focussed companies. Saudi Aramco, National Iranian Oil Company, and Iraq National Oil Company each control over 100 billion barrels of oil reserves. They make the Old seven 'Sisters of Oil' look like Lilliputians. Exxon's reserves are 11-12 billion barrels, compared to Saudi Aramco's 250 billion[2]. Resource nationalism has failed to sweep Canada like it did in the 1970s. That's a shame because it is key to the paradigm shift we need to tackle the triple crisis.

In the next 20 years, every country will face a triple enviro-energy crisis that will force it to make a paradigm shift toward a new balance with the natural world, or be stuck in a declining, fossil-fuel belt, analogous to the industrial 'rust belt' of the U.S. mid-west. How countries deal with the triple crisis will influence their position in what I anticipate will be the altered international order of the 2020s. What is the 'triple crisis'? First, more frequent and severe oil-supply shocks will likely accompany the end of cheap oil (peak oil' theory)[3]. Second, expensive and less available oil will profoundly impact both a country's energy security, and class justice issues of which citizens will have access to diminished energy supplies. Third, how will countries begin to make the transition to a powered-down, post-carbon society, to forestall climate-change disasters? These crises show the inseparability of energy and environmental issues.

Energy Security and independence

The great recession has revealed that the US in international decline. But, it is still the world's great empire. It is ironic then that American political leaders talk a lot about independence, not least in relation to energy. They tend to equate energy independence with national energy security. It is not surprising that independence is a major US motif. After all, they led an 8 year war for independence in 1776 against the great empire of the time. Unfortunately, the US does not extend its quest for national independence to other countries, whose sovereignty they often puncture.

Despite the differences in image, the U.S. and Canadian governments have much in common. In their actions, both governments support the redistribution of wealth toward banks and corporations, and the projection of US power abroad. They talk about 'tech' fixes for dirty coal and oil. Yet their rhetoric differs widely on oil and gas policy. Like all U.S. Presidents since Nixon, Obama promises Americans energy independence. In his election campaign, he laid out an ambitious plan to reach it, the most progressive plan since the days of Jimmy Carter. I will examine Obama's policies later. Before I do so, I need to point out that while all U.S. presidents have promised energy independence, the US has gotten steadily less so. In contrast, Canadian Prime Ministers never talk about energy independence, and enthusiastically support Canada's satellite role of helping to ensure U.S. energy security, which undermines secure supplies of energy for Canadians. Living in a country where the dominant season is winter, energy security matters. Energy shortages can literally mean freezing in the dark.

The irony is that American Presidents have promised energy independence, but failed to do much about it, while Canadian Prime Ministers do not talk about it, but could easily achieve it. Canada exports more energy than it consumes.

Security has different meanings in the two countries. The U.S. has a NEP, National Energy Policy, emphasizing energy security. In the U.S., energy security means grabbing someone else's oil. It means empire, whereas in Canada energy security means energy sovereignty, the right of Canadians to have priority use of their own energy resources. That's why framing the issue as 'energy security' for Canada, is a truly subversive goal. Politically, how can the Canadian Council of Chief Executive officers, or the Conservative Party promise energy security to Americans, and not to Canadians? It is untenable.

Using the language of security is disconcerting for Conservatives and the Canadian Right, because it is their language. But, security can be reclaimed as progressive, as in social security, environmental security, security of the person. The Right's favourite comeback to the Left is that anyone advocating Canadian sovereignty, or not going along with the American agenda, is anti-American. But, if Canada adopts an energy security plan like theirs, how can it be anti-American to copy them? Imitation is the sincerest form of flattery. If the U.S. can have a NEP with official goals of 'energy security', 'self-sufficiency', 'energy independence' and domestic ownership, why can't Canada? Of course, it would mean that Canada would supply itself first and reduce energy exports to the U.S.

The main US choice on energy independence is to go really green and substantially cut fossil fuel consumption, or use aggressive means, including war, to get other peoples' oil. It's a choice of green and independent, versus empire and dependence. Canada's main security choice is to gain **energy independence so it can go green**, or spew lots of greenhouse gases by providing guaranteed levels of energy exports to the US, and act as deputy sheriff to U.S. adventures abroad over oil.

Energy insecurity

The world is about to experience a series of international oil supply shocks. No one is sure when the first one will strike. When it does, countries which lack at least one of the following will experience the severest crisis: 1) have an abundance of oil and prioritize it for its citizens above those of exports, or 2) the military might to requisition other people's oil, or 3) long-term oil supply contracts, or 4) large strategic Petroleum Reserves. Despite its plentiful oil, Canada is in the severe-crisis camp. It fails on all four counts.

Most Canadians are unaware of the risk. Living in the second largest country in the world and with a small population, Canadians are particularly prone to naïve beliefs about their country having unlimited resources, and enough 'useless' land to store toxic wastes. Rated at 174 billion barrels of recoverable crude, Alberta's tar sands are estimated to hold the world's second largest amount of oil. Only Saudi Arabia is believed to have more[4]. But, despite this vast resource, Canadians are very energy insecure because of poor Canadian policies. Two thirds of Canada's total oil production is exported to the U.S. With six new export pipelines planned, that share is forecast to rise. Meanwhile, Quebec imports 92% of its oil, Atlantic Canada 75% and even Ontario, over one-third. Half of Canada's oil imports come from OPEC countries, a proportion which tops the 44% share the U.S. imports from OPEC. Algeria, Saudi Arabia[5] and Iraq head the list of exporters to Canada. None are secure suppliers[6].

Canada is the most vulnerable country in the International Energy Agency to short-term disruptions because of a loophole in IEA requirements, combined with a complacent Canadian government. The IEA requires all members to maintain emergency oil reserves but exempts net oil exporters, on the sensible assumption that they will meet domestic needs before shipping surplusses abroad.

The IEA does not require Norway to have Strategic Petroleum Reserves, because, like Canada, Norway is a net oil exporter. Nevertheless, Norway acts prudently and requires oil companies to keep reserves on hand, to use in an emergency[7]. It ensures that its citizens are supplied before allowing exports of surplus amounts[8]. In contrast, despite abundant oil, Canada acts like an energy deficient country and imports oil. Yet, Canada does not have strategic petroleum reserves, like all other developed, importing countries do.

Canada acts recklessly because current government leaders misperceive or misrepresent Canada's energy role. Prime Minister Stephen Harper frequently brags that Canada is an 'emerging energy superpower'. He hasn't consulted a dictionary. Superpowers influence events by projecting economic, military, political and cultural power on a world scale (Miller, 2008). Harper's inflated language hardly fits Canada, which acts more like an energy colony. A colony or satellite is a people who lose control of their resources to a foreign power. When you cannot safeguard your citizens from freezing in the dark, nor control how much you export, nor set the price at which citizens buy back their own energy from foreign transnational corporations, you know you are not a superpower.

Instead, as the number one U.S. supplier of foreign oil, Canada helps ensure U.S. energy security.

Proportionality and forced exports

NAFTA prohibits Canada from using the majority of the oil and natural gas it produces to supply its citizens during international energy shortages. No other developed country is forbidden from using domestic resources for its own citizens. Instead, Canada must continue to export two-thirds of daily oil production to the US and depend on insecure, imported oil for Eastern Canadians. Canada is running out of natural gas. Yet, rather than stretch out dwindling gas stocks for Canadians by cutting exports, Canada must also send more than half to the US.

Why must Canada export energy even if its citizens shiver in the dark? Because **proportionality**, an obscure-sounding clause in NAFTA, says so. Proportionality is "unique in all of the world's treaties", writes Richard Heinberg (2008), a noted California author on energy. "Canada has every reason to repudiate the proportionality clause", Heinberg continues, "and to do so unilaterally and immediately".

NAFTA's energy "proportionality clause" requires Canada, and Canada alone, to maintain its current share of energy exports to the United States. US negotiators of the Canada-US Free Trade Agreement (FTA 1989) insisted Canada agree to proportionality, to prohibit Canada from reducing oil exports to the US, as Canada did in 1975 in response to threats of energy shortages in Eastern Canada. When NAFTA superseded the FTA in 1994, proportionality was retained.

Mexico, like Canada, is a major oil exporter and NAFTA member. But, Mexico rejected the proportionality clause because its government was unwilling to give up energy sovereignty in a country which annually celebrates 'oil independence day'.

Proportionality prohibits Canada from lowering the share of energy exports relative to its total supply in the most recent three year period. The language implies that proportionality covers all NAFTA countries. It does not. Mexico is exempt, which also benefits the U.S, by removing any U.S. obligation to continue its current level of natural gas exports to Mexico, if the U.S. runs short. The U.S. is not a significant exporter of oil, accounting for 2.2% of Canadian oil imports. Since the U.S. imports almost 60% of the oil it uses[9], the U.S. is, in effect, re-exporting oil it imports[10]. Thus, proportionality is a *de facto* Canadian clause.

Proportionality severely limits the tough environmental policies Canada must adopt. If Canadians substantially cut oil and natural gas use, this would not lead to a commensurate fall in GHG production, because proportionality severs the umbilical cord between energy use and output in Canada. If Canadians lower usage, virtually all the surplus saved would be exported to the US. Then Canada would be obligated to supply an even higher proportion of energy to the U.S. It's a ratchet that goes one way.

Cuts to Canadian use of fossil fuels would cut greenhouse gases, and be good. But, oil production, not oil use, is the fastest growing source of Canada's GHG emissions. Tarsands output is scheduled to rise 3 to 5 times from current levels to 3.5 to 5 million barrels a day in the next decade. Most is earmarked for export to the US.

The tarsands are such big emitters of greenhouse gases, because it takes so much of Canada's falling supply of natural gas to heat up tar sands and provide hydrogen. The tar sands are almost three times as greenhouse-gas intensive as conventional oil. "Injecting natural gas into the oil sands to produce oil is like turning gold into lead."

It will be hard to convince Canadians to substantially cut fossil-fuel use, buy Smart cars or cycle, so more Americans can drive SUVs and Hummers. Meanwhile, Canada would still be labelled a climate-change, bad-boy. This is the perversity of proportionality. If the US cuts energy consumption, it boosts their energy independence. If Canadians cut energy consumption, we just export more to the US.

How did Canada get stuck with proportionality? Political power. In the 1980s, proportionality was promoted by oil and gas corporations as a way to gain guaranteed access to U.S. markets during an oil and gas production slump in Canada. The corporations aimed to gain quick profits by exporting Canadian energy in its raw forms. Naturally, subsidiaries of U.S. corporations attempted to secure Canadian energy for use by their parent companies. Domestic corporations saw greater profits in exporting to the large U.S. market.

Few are surprised when corporations act self-interestedly, but citizens expect their governments to protect them. This did not happen. Conservative governments in Alberta and Ottawa worked closely with oil corporations to overturn Trudeau's far-sighted, energy independence policies of the 1970s and early 1980s.

Parts of the NEP were wrong-headed – unilateral federal government action over resources, which are owned by Albertans, no federal-provincial partnership, moving away from exploration for oil and gas finds in Alberta, and a promotion of the Liberal Party of Canada. But, overall the NEP was good and very bold policy. It was the most concerted attempt ever to Canadianize the economy, and take control away from U.S. and other foreign owners, much of it through public ownership. At first, the majority of Albertans supported the goal of Canadianization.

Promoted by Conservative governments, proportionality was inserted into the Free Trade Agreement with the US to ensure that future Canadian governments would never bring in another NEP, and thereby dim prospects for huge, oil-profits.

Thus Canada got stuck with a very bad deal, which makes it more vulnerable to short-term oil supply shocks than any other country in the IEA. This is ironic because Canada is energy rich. Canada is the 7th biggest producer of oil in the world, third in natural gas, 12th in coal, and 6th in electricity[11]. Overall, Canada is the world's fifth greatest producer

of primary energy. But, this does not make Canada the energy superpower of Harper's dreams. How many energy superpowers can the world support?

Super Energy Consumer

The United States is energy insecure too, and entirely for reasons of its own making. The US has 4.6% of the world's people[12], produces 10% of the world's oil and consumes 24% of it[13]. It imports more oil (12.4 m b/day) than the world's next three oil importers combined (Japan 5.1 m b/day; China 3.4 m b/day; Germany 2.5 m b/day)[14]. But, American oil dependence hides its still bountiful energy supplies. I was very surprised to learn that when all forms of energy are considered - oil, natural gas, coal, and most forms of energy to produce electricity - America is the world's greatest 'primary energy producer'. The U.S. is second in natural gas and coal, and first in electricity. At 8.3 m b/day, U.S. petroleum output is still an impressive third, not that far behind Saudi Arabia (10.7) and Russia (9.7).

It is only the Americans super wasteful appetite for oil, that makes it seem like an energy also-ran. If the U.S. implemented the goal Jimmy Carter set 30 years ago of living off its own energy resources to attain independence and conservation, the average American would still have access to more than double the world's per capita level of oil consumption.

Imperial Dependence or Conservation Independence?

To illustrate US policy choices regarding the use of domestic versus foreign energy, I want to start with two historical figures – Walton C Ferris and Jimmy Carter. You've heard of Jimmy Carter. I venture that few of you have heard of Ferris.

Ferris was a career foreign service officer in the US State Department working on oil matters just before US involvement in World War II. Although the US inherited perhaps the greatest store of oil of any country in the world, the full extent of US reserves were not known in the early 1940s. Contemporary projections put US reserves at 14 years of domestic supply. Planners anticipated much higher oil usage by the US and its allies when the US joined the war[15].

Ferris prepared a report just before Japan attacked Pearl Harbor. His solution seems to have guided US oil policy ever since. As the world's leading oil producer then, the US had enough domestic oil for its own needs and those of its war-time allies. But, if it did so there would be insufficient domestic oil remaining for future crises, Ferris argued. He recommended that the US conserve domestic reserves, not by reducing wasteful use at home, but by using more foreign oil. The problem, he argued, was that other countries also sought additional supplies from the same sources as the US – the Middle East, Venezuela and Mexico. Ferris concluded that US foreign oil policy be "more and more aggressive" to ensure US access to foreign oil[16].

Ferris' boss, Max Thornburg saw the main US problem as how to secure the rights US oil companies already had to foreign oil reserves, from being nationalized. He encouraged the US to use American-owned oil companies as instruments of US government oil

policy, and wielding state power to reduce corporate risks. Historian David Painter put Thornburg's position thus: "If the United States were to maintain its dominant position in world oil, it would need a positive foreign policy that protected its interests and anticipated problems between US companies and foreign governments[17]". As Dick Cheney later said "Oil is government business".

These wartime policies set the US roughly on its present course of preventing a too-rapid depletion of American energy resources, by depleting other countries oil and gas developing a symbiotic relationship with US oil corporations. But, don't raise the issue of colossal waste of fossil fuels at home, as a way to conserve domestic resources.

There was a brief divergence from this course in 1959, when Eisenhower's regime placed mandatory import quotas on oil and raised the domestic price for the bulk of the US market above the international price, to boost the domestic industry[18]. But, this was a minor blip in the long-term U.S. policy of using up other people's oil, with the purpose of conserving domestic supplies.

Now we jump forward 35 years to Jimmy Carter, who was in office during the last oil crisis, in the 1970s. He tried to escape from the trap of profligate energy use, but was pulled back into the dominant US pattern of energy wastage at home leading to an empire around oil abroad.

Jimmy Carter was the only President before Obama who began his term, prepared to realistically meet the challenge of falling domestic oil production.

Only three months into office, Carter went on television to outline a far-sighted energy plan[19]. Carter's words were visionary, his actions bold. Carter promised U.S. energy independence through the only realistic way – substantial cuts in consumption.

Carter began by stating that, with the exception of war, the energy crisis was the greatest challenge to America. In language reminiscent of peak oil talk today, Carter warned that "The oil and natural gas we rely on for 75 percent of our energy are running out". "Our nation's independence … is becoming increasingly constrained."

Carter placed the blame where it belonged: "Ours is the most wasteful nation on earth. We waste more energy than we import. With about the same standard of living, we use twice as much energy per person as do other countries like Germany, Japan and Sweden". If the US did not change course, Carter warned, in a few years, "demand will overtake production".

Sounding like this was 2009 rather than 1977, Carter said the US faced two choices. First, carry on doing "what we have been doing". "Supplies will be uncertain". America will be "vulnerable to supply interruptions". "We will live in fear of embargoes". "We will feel mounting pressure to plunder the environment. We will have a crash program to build more nuclear plants, strip-mine and burn more coal." To this list, Carter should have added 'We will prepare to go to war for foreign oil'. The second choice, Carter

continued, was to act now. "We simply must balance our demand for energy with our rapidly shrinking resources". The last statement was key.

The cornerstone of Carter's plan was to "reduce the demand through conservation". He tied energy security with environmental protection. "Our energy problems have the same cause as our environmental problems —wasteful use of resources. Conservation helps us solve both at once." Prophetically Carter warned that his policies would not be easy or popular, and would spark opposition from "special interest groups".

If the Presidents who followed Carter, had stuck to his course of reducing domestic use at the same rate as falling US oil and gas production, today the U.S. would be energy independent and secure. The US would also be today's environmental leader, rather than the world's great laggard. There would likely not have been recent Middle East wars to secure oil.

Carter acted on his words. He built on the conservation and security framework started in the previous three years. CAFE standards (corporate average fuel efficiency), was enacted in 1975, but only came into force in 1978, under Carter. CAFE mandated that auto companies improve average gas mileage each year. By 1985, American cars were averaging 25 miles per gallon, compared to 15 in 1975[20]. Unfortunately, CAFE standards excluded SUVs, minivans and pickup trucks, vehicles which were soon to explode in popularity in the US.

Between Carter's spring offensive in 1977 and 1986, when Reagan froze CAFE's rising standards, the last of Carter's conservation plan to be dismantled, the US economy grew by 27%, but oil demand fell by over one-sixth[21]. So much for the assertion that the economy can not grow while oil usage falls.

Carter's plan, coinciding with strong conservation measures in Europe and Japan, and demand-dampening oil price spikes in the 1970s, were ironically, too successful. The consequent glut in world oil supply brought us back to cheap oil. The pressure was off for the US to gain energy independence through conservation.

David L. Greene demonstrated that CAFE standards were "perhaps twice as important an influence as gasoline prices" in the drop in U.S. consumption[22].

Gains in US energy independence had been dramatic. Whereas in 1977 the US imported more than double the level of petroleum energy as in 1971, by 1985 imports had fallen to a little more than half the 1977 level. Defeating Carter in the 1980 election for weakening America, Ronald Reagan overturned Carter's energy policies. The policy reversal combined with lower oil and gasoline prices, led to the steady rise in U.S. demand for oil. The inevitable consequences are today's growing oil imports and reduced US oil independence and security. After 1985, the special interests Carter had warned about, succeeded in dismantling the last of his tough energy conservation measures. As a result, US imports of petroleum began the steady rise from 20% to almost 60% today[23].

Despite his later, somewhat wimpy image, Carter had a darker side. Three years after his prescient 1977 speech, Carter declared the Persian Gulf to be of vital national interest to the US. The Carter Doctrine declared that "an attempt by any outside force to gain control of the Persian Gulf region will be regarded as an assault on the vital interests of America, and such an assault will be **repelled by any means necessary, including military force**". Carter's Doctrine was used by the two Bush Presidents to justify both Gulf wars.

Jimmy Carter's Presidency represented the main options for US strategies to get fossil fuels – conservation versus war. Carter may have hoped conservation would obviate the need for an aggressive US military stance to get other people's oil. After the Shah's overthrow in 1978, he was as much hostage to previous US actions, as were the 52 American diplomats held in detention by Iran for 444 days. Ordinary Americans may have forgotten that the US and Britain supported a coup against popular Iranian President, Muhammad Musaddiq, who nationalized Iran's oil industry in 1951. But, Iranians remembered. On November 5, 1979 the US embassy was taken over by Islamic militants. Seven weeks later, the Soviets invaded Afghanistan. Iran, which had been America's shield against Soviet expansion into the Gulf, was no longer on side[24]. The new Iranian government directed an oil boycott against the U.S. Carter's Doctrine was the counter reaction to the events in Afghanistan and Iran.

With the value of hindsight, we know that in the past 30 years US policy has followed Carter's Doctrine rather than his conservation plans, and with devastating human and environmental consequences. Conservation was the road not taken. Will the U.S. under Obama now return to that fork in the road, and follow the path less travelled? We will take up these questions after exploring Canada's policy choices on energy and the environment.

Pierre Trudeau was Canada's Prime Minister during Carter's presidency. Trudeau' reign, 1968 to 1984, coincided with the Presidencies of Nixon, Ford, Carter and Reagan's first term[25]. Trudeau was as bold as Carter in gaining Canada much more energy independence, but Canada largely clung to American coattails on energy conservation. Without an independent, Canadian automobile industry, Canadians bought more and more efficient cars from US automakers, who were forced to go green because of increasingly tough US regulations. Canada got greener largely by default. However, independence coincided with Canada going greener.

When Trudeau took office in 1968, Canada was an energy satellite of the US. This was Canada's long-term pattern, to which it reverted after Trudeau retired in 1984. Contrary to US historians' claims, the world's first oil well was punched in Petrolia Ontario, Canada in 1858 rather than in Titusville Pennsylvania in 1859. Nevertheless, the Canadian industry soon became a northern extension of the American one. By 1970, foreign owners controlled 91% of the assets of petroleum companies in Canada[26]. Four-fifths of the foreign ownership was American. Rather than supply all Canadian consumers, Canada exported half (53%) of its oil production to the US and imported half (49%) from offshore[27].

There was no talk then of energy security for Canada, and, like today again, the federal government had no plans for it. Ensuring security of supplies of natural gas was not a great problem. An all-Canadian, natural gas pipeline ran from Western Canada to Quebec City, supplying domestic gas to 6 of the 10 provinces, which included almost 90% of the people. Oil was the main energy security issue, as Canadians were about to learn during the Arab oil boycott in 1973-4. An oil pipeline from Western Canada to Ontario, ran through the US states of Wisconsin, Illinois, and Michigan, to which it offloaded more than half its oil. No oil pipeline reached Quebec, which along with Canada's Atlantic provinces were entirely dependent on offshore oil.

Canada quickly discarded its energy-satellite status under the twin pressures of the international oil crises of the 1970s, and a rise in sentiment for popular Canadian sovereignty. Canada joined the resource nationalism that was coursing around the world and set up PetroCanada, a government-owned oil company that bought out one oil transnational after another. This coincided with an international wave of nationalizations that de-globalized 336 transnationals in the world 1970 to 1975[28]. In 1980, Trudeau's National Energy Program (NEP) set a goal of raising Canadian ownership to 50 per cent through government and private ownership. It was wildly popular.

The 'made in Canada' policy prioritized domestic oil for Canadians. An oil pipeline was extended to Montreal, bringing Western Canadian oil to Quebec for the first time. To divert oil to Quebec, Canada cut exports to the US and told that country that it would send them oil only if there were long-term surpluses to Canada's needs. When the international price of oil skyrocketed, rising10-12 fold from 1973 to 1979, Canada held down the domestic price, but charged the US the world price for Canadian exports. By 1981, Canadian oil exports had dwindled to 14% of their 1973 level[29].

But the NEP did not last long. Timing was unfortunate. World oil prices crashed in 1982. Although all oil producing regions in the world suffered devastating crashes after boom times, most Albertans blamed the NEP for Alberta's economic crash. They were helped along in this view by an hysterical corporate media and Alberta government. The stage was set to overturn the National Energy Program and insert the proportionality clause to ensure it would never rise again. The old NEP was replaced by a new NEP – No Energy Policy, which still reigns today.

Currently, Canada greatly oversteps its carbon footprint. With 0.5 % of the world's people[30], Canada produces 3.8% of the world's oil, and consumes 2.7% of it[31].

Obama and Energy: Real or false hope?

Obama's presidency represents the greatest potential break from the colossally wasteful energy policies the U.S. has followed since 1980. Unlike the previous four presidents, Obama takes seriously the threat of climate change and the need for energy conservation and renewable energy. Do his energy policies offer as much hope as Jimmy Carter's did? How likely is Obama to succeed in implementing his policies? Does U.S. policy offer an opening for the turn around needed in Canadian policies?

It is clear what Obama promised American voters in the 2008 election campaign. At this point, it is less clear what his policies will actually be, what the great recession will do to his plans, and which of his proposals Congress will pass. First, the campaign promises[32].

The language is all around 'energy independence', reducing or ending 'dependence on foreign oil', and 'national security'. The challenges the U.S. faces are framed as 'national' independence and 'global' climate change. There is no reference to the 'North American' energy security American officials use only when talking to Canadians and Mexicans. The promises are bold and around many of the right things, especially the massive powerdown, or reduced energy consumption. The Obama campaign promised to cut oil use within 10 years by more than the U.S. currently imports from the Middle East and Venezuela. That would mean cutting imports by at least half. Since imports make up about 60% of total U.S. supplies, the promise is a drop of at least 30% in oil use. That is in line with the scale of cuts Jimmy Carter promised, and went a long way to achieving. [He was in power only four years. Obama posits a ten-year time frame.] Similarly, the policies also focus cutting waste in electricity use.

The means proposed to get to lower consumption are credible. First, there's the return to fairly aggressive (4% per year), annual CAFE (corporate average fuel efficiency) improvements. Second, there's the promise of substantial funding for plug-in hybrid cars, and weatherization of homes of the poor. Third, there are tough proposed regulatory changes to building codes, and to 'flipping the profit model' to make it more profitable for utilities to cut usage rather than selling more power. Finally, the promised expansion of renewable energy is fairly ambitious.

Since taking office, Obama has started to move on some of this agenda. His 2009 budget proposals to put a cap on emissions and require that all pollution credits will be auctioned is, in effect, a carbon tax. There is more money for renewable energy. It's too early to determine how much of this will get through Congress.

But, Obama has made some backtracking comments. In his interview with Peter Mansbridge on CBC in February 2009, Obama brushed off concerns about massive carbon emissions from coal and the tarsands with a comment that technology would take care of the problem. This is doubtful, and dashed hopes among many Canadian environmentalists that Obama would hinder or block 'dirty' oil imports from the tarsands. Carbon sequestration is an unproven technology. Even if becomes commercial, it can, according to some, capture only about 10% of carbon emissions from the tarsands, compared to a potential 90% from coal-fired utilities[33].

Then there was Obama's campaign promise that he would renegotiate NAFTA. That raised hopes among progressive Canadians that Canada could put its own issues on the table, especially getting out of the proportionality exporting clause. Two roadblocks have since appeared regarding that possibility. First, Obama has watered down his original tough language on 'using the hammer of NAFTA's six month pull out' provision to win on renegotiation. Second, and more fatally, at least for now, is that Harper's

Conservatives won re-election in October and the December-January showdown against the Coalition government. Even if NAFTA is opened up, there is zero chance that Harper would add pulling out of the proportionality clause to the agenda. His government is very committed to a continental energy policy which favours oil transnationals and the Calgary oil patch. The only chance for the NAFTA renegotiation scenario to include rescinding proportionality, would come if Harper is defeated in an election and replaced by either a Liberal minority government or a Liberal-NDP coalition. Even then, given Michael Ignatieff's latest pronouncements supporting the development of the tarsands, it is far from certain that a government led by him would insist on removing the proportionality clause and adopt a Canada-first energy strategy.

Back to the Future

How relevant is this history today? I described bold and creative ways the US and Canada dealt with the last oil shock. The US moved toward conservation, which if continued, could have eliminated their perceived need for imperial adventures over oil. Just as boldly, Canada moved toward energy independence and cut oil consumption. However, the 1980s oil glut, combined with the rise of right-wing ideology that lionized monetarism and high interest rates, deregulated environmental safeguards, and the globalism ideology of a borderless world, sent us back to fossil fuel use with a vengeance.

Globalization myths were particularly harmful, promising a world where it is as cheap to import goods from half way round the world as from next door. It went largely unnoticed that the 'death of distance' was based less on wondrous new technologies, than on humans rapaciously, within a span of 150 years, burning through the most accessible part of earth's inheritance of fossil fuels, which took millions of years to build up. The death of distance was mainly based on finite supplies of cheap transportation fuels. That era is ending.

When oil prices rise 5 or 10 times within the next decade, distance will matter a lot again, as it has in most of human history. We are unlikely to find alternative energy sources in the same abundance and at low prices. The future will be a lower energy society. Powerdown. These changes will spark a renationalization and relocalization of economies. In some ways it will be a return to the middle ages of localized economies, living off nearby surroundings. But, we will have the Internet and much better telecommunications technologies than today.

Conclusion

We are all faced with huge new challenges and the need for a paradigm shift to think about, and deal with them. In the 1990s, few citizens had deeply thought about climate change. As George H.W. Bush famously said at Rio's Earth Summit in 1992, "the American way of life is not negotiable[34]". Similarly, it was assumed that the world had plentiful supplies of cheap oil and there were no physical limits to ever-increasing energy consumption. More broadly, many assumed that growth could go on forever and that economic prosperity depended on the speculative financialization of the economy[35].

Finally, many assumed that globalization would eclipse nations and states, and that we were inevitably moving toward a borderless world. None of these assumptions hold.

Several epoch-changing jolts have challenged those dominant premises. Recognition of the calamity of climate change is growing. The response to S-11 led to the era-shifting idea that 'security trumps trade'. The world has been re-bordered in most places more effectively than ever. The Great Recession has undermined the legitimacy and confidence in the neoliberal paradigm. While the rise of resource nationalisms in petroleum-rich countries are temporarily in the dumps due to current low oil prices, their fortunes will soon rise again as the effects of peak oil hit. They will resume their challenge to U.S. imperial power and continue to weaken the hold of private oil transnationals.

A new paradigm based on a conserver, post-carbon society is emerging, in which economies will be re-embedded in society under the sovereign control of citizens, with international orientations, to save the future of humanity and all life forms.

Since Walton Ferris in 1941, U.S. policy has usually been about aggression to get other peoples oil, rather than conservation. Ironically the Empire option chooses dependence. No matter how powerful the US, it is still hostage to the House of Saud, to insurgents blowing up pipelines, to the quagmire of spilling blood for oil.

There were hopeful deviations in the US and Canada in late 1970s and early 1980s. The US gained partial energy independence through conservation, while Canada gained independence with conservation as a byproduct. What's the answer today? Go back to those forks in the road and head down those paths – this time with the end of the path, being a transition to post-carbon societies. Canada and the U.S. have become two great environmental laggards. With a combined 5% of the world's people, they irresponsibly burn up 27% of the world's fossil fuels. It is high time that both countries clean up their acts. But, their routes to getting to a conserver society where production is for use-value rather than profits, differ. Their divergence reflects wider realities in the transition to post-carbon societies – the contrast between resource-rich, but weak countries versus resource-depleted, but strong countries.

The US will have to stop acting like an empire and go deeply green if it wants energy independence and security, and that Canada will have to stop acting like the dutiful resource colony it is, and regain sovereignty, so it can go truly green.

[1] Shawn McCarthy, 'US on the offensive in bid to secure energy supplies' Globe and Mail. 14 Fe 2008. He got his info from PFC Energy.
[2] Carola Hoyos, 'The New Seven Sisters: oil and gas giants dwarf western rivals'. Financial Times, 11Mar 07. Businesswire. 'Exxon Mobil Corporation Announces 2007 Reserves Replacement'. 15Fe 08. http://www.businesswire.com/portal/site/exxonmobil/index.jsp?ndmViewId=news_view&ndmConfi...
[3] International Energy Agency, *2008 World Energy Outlook*. Paris. Pps. 37-8. http://www.worldenergyoutlook.org/docs/weo2008/WEO2008_es_english.pdf. Accessed 17 Dec, 2008.
[4] Proven reserves are those that can be extracted using current technology and economics. The *Oil and Gas Journal* asks governments to provide data on oil reserves. This data is as reliable as the governments which provide the information. Many governments consider proven reserve estimates to be state secrets. According to the *Oil and Gas Journal* (Dec 19, 2005), Saudi Arabia claims it has 264.3 billion barrels of proven reserves. Canada claims to have 178.8 billion barrels. Iran is third with 132.5 billion barrels (pp. 24-5). Most of the oil in Venezuela's huge Orinoco belt is excluded from these reserve calculations.
[5] There were 3 publicly-reported attempts to target Saudi oil facilities in 2006-7. Abqaiq processes almost 8% of the world's oil.
[6] They are reliable suppliers in that they fulfil their contracts, but for reasons discussed below, their supplies are subject to terrorist attacks. Thanks to Kjel Oslund for the 'reliable' vs. 'secure' distinction.
[7] R. Glenn Hubbard and Robert J. Weiner, 1985, 'Managing the Strategic Petroleum Reserve: Energy Policy in a Market Setting', *Annual Review Energy*, Vol 10, p. 528.
[8] Norway imports a small amount of specialty grade oil from Russia. E-mail communication from Ole Gunnar Austvik.
[9] The U.S. imported 8.32 million barrels of oil per day in 2005 and exported 1.05 million b/ day in 2004. The U.S. produced 490.1 billion cu ft of natural gas in 2005 and exported 19.8 b cu ft. that year (CIA, 2008). Thanks to Ryan Katz-Rozene for getting this information.
[10] EIA. U.S. Energy Administration. 2008. 'Weekly Imports and Exports'. http://tonto.eia.doe.gov/dnav/pet/pet_move_wkly_dc_NUS-Z00_mbblpd_w.htm. (Accessed 21 Jul, 2008).
[11] EIA, 2008. 'Canada Energy Profile'. http://tonto.eia.doe.gov/country/country_energy_data.cfm?fips=CA. (Accessed 15 Dec, 2008).
[12] US Census Bureau. 'U.S. and World Population Clocks'. The US had 303.76 million people in a world population of 6.659 billion. http://www.census.gov/main/www/popclock.html. Accessed 2Ap 08.
[13] US Energy Information Administration, 'International Petroleum' US oil production averaged 8.48 million barrels per day in 2007. Total world supply was 84.64 million b/day. US consumption averaged 20.7 million b/ day in the third quarter of 2007, compared to 85.25 m b/day. Oil is defined by the EIA as crude oil (including lease condensate) natural gas plant liquids, and other liquids and refinery processing gains and losses. http://www.eia.doe.gov/emeu/ipsr/t21.xls. Accessed 2Ap 08.
[14] EIA, 2006. 'Top World Oil Net Importers'. http://tonto.eia.doe.gov/country/index.cfm. (Accessed 15 Dec, 2008).
[15] Michael T. Klare, *Blood and Oil.* New York: Owl Books, 2004. pp 28-30.
[16] David S. Painter, *Oil and the American Century. The Political Economy of U.S. Foreign Oil Policy, 1941-1954.* Baltimore: The John Hopkins University Press, 1986 p. 16.
[17] Ibid., p. 17.
[18] James Laxer, *Oil and Gas*. Toronto: Lorimer, 1983: 8.
[19] The President's Proposed Energy Policy. Jimmy Carter April 18, 1977. Minnesotans For Sustainability© http://www.mnforsustain.org/energy_speech_president_carter.htm.
[20] Paul Roberts, *The End of Oil. On the edge of a Perilous New World*. Boston: Houghton Mifflin, 2004. p. 153.
[21] Roberts, *End of Oil.* pp 218-219. The Hirsch Report gives slightly different figures. A 13% drop from 1973 to 1983. *Peaking of World Oil Production: Impacts, Mitigation, & Risk Management*, US Dept of Energy, Feb 2005. p. 20.
[22] David L. Greene, CAFE OR PRICE?: An Analysis of the effects of federal fuel economy regulations and gasoline Price on New Car MPG, 1978-89," *The Energy Journal*, vol. 11, # 3, Sept. Retrieved 16Aug, 2007 from Academic Search Premier database.
[23] US. Energy Overview, 1949-2006. http://www.eia.doe.gov/emeu/aer/txt/ptb0101.html. Accessed 31Mar 08. Petroleum includes crude oil and petroleum products. Thanks to Ryan Katz-Rosene for getting me this table.
[24] Michael T. Klare, *Blood and Oil.* New York: Owl Books, 2004. pp 3-6, 45-6.
[25] Trudeau was briefly out of office for 9 months in 1979-80, when the minority Conservative government led by Joe Clark, was in office.
[26] James Laxer, *Oil and Gas*. Toronto: Lorimer, 1983: 7-8.
[27] Statistics Canada. *Historical Statistics of Canada*. Series Production and trade in crude petroleum 1868 to 1976. http://www.statscan.ca/english/freepub/11-516-XIE/sectionq//Q19_25.csv.
[28] J.M. Stopford, Susan George, and John S. Henley. 1991. *Rival States. Rival Firms*. Cambridge: Cambridge University Press p. 15.

[29] CAPP, 'Exports from Canada 1952-2006'. http://www.capp.ca/default.asp?V_DOC_ID=1072&SectionID=9&SortString=TableNo. Accessed 5 Apr 08. Thank you to Ryan Katz-Rosene for directing me to this table.
[30] Canada had 33.313 million people in a world population of 6.659 billion. http://www.census.gov/ipc/www/idb/country/caportal.html
[31] Numbers on Canadian production and consumption taken from Julian Darley, 'The New Energy Reality', Apr 22, 2006. Post Carbon Institute. www.postcarbon.org.
[32] Obama-Biden campaign. 'Barack Obama and Joe Biden: New Energy for America'. http://www.barackobama.com/page/content/newenergy_more. Accessed 3 Mar 09.
[33]
[34] Thomas Wheeler, 'It's the End of the World as We Know It'. Energy Bulletin. July 28, 2004. http://www.energybulletin.net/1246.html.
[35] John Bellamy Foster, Interview on the Great Financial Crisis. By Mike Whitney. Information Clearing House. http://informationclearinghouse.info/article22116.htm. Accessed 28 Feb 09.