

Will Canada Join the Rail And Nuclear Renaissance?

by Rob Ainsworth, Canadian LaRouche Youth Movement

With Russia's recent proposal that Canada and the United States join it in building a tunnel across the Bering Strait, a question of great historical importance has been set before the Canadian people: Will Canada join the growing chorus of nations that are denouncing the neo-liberal ideology of free trade and globalization, or will Canadians blindly follow the dictates of lunatic environmentalists such as David Suzuki and Al Gore?

Around the world, nations are moving in a new direction: towards what is now being universally heralded as the "nuclear renaissance." Russia and China are leading the way, with plans to build dozens of plants each, both domestically and internationally. What these nations and others are implementing is the vision of Lyndon LaRouche: of continental corridors of development and infrastructure, connecting and uplifting all mankind. These international shifts have also released the potential for great changes in Canada, centered upon plans to build as many as 12 new reactors in the next 10-15 years. At the same time, with the Bering Strait project, with rising clamor over the miserable state of Canada's rail infrastructure, and with the inability of North America's West Coast port facilities to deal with the massive volume of Pacific trade, Canada is being presented with new opportunities to revolutionize its railways.

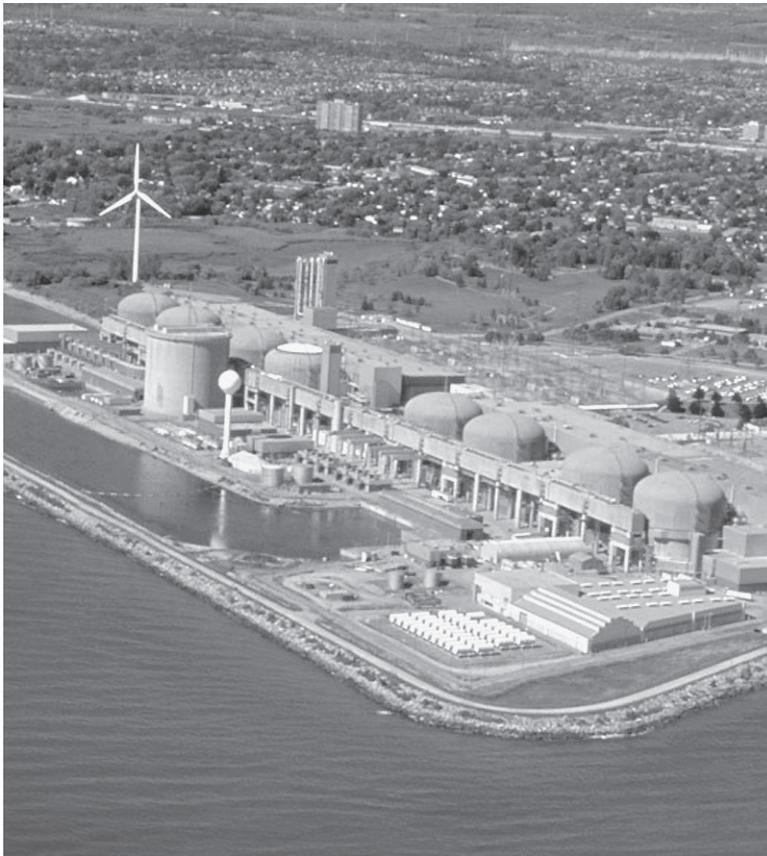
Nuclear Redux

After more than 25 years of domestic neglect, the Canadian nuclear power industry, now operating 20 facilities, 18 of which are in Ontario, is gearing up to take part in the global nuclear renaissance. While the Atomic Energy of Canada Limited (AECL) has completed construction of a second reactor in Cernavoda, Romania, the latest in a string of overseas projects that recently included two reactors in China, on-budget and ahead of schedule, the company is now looking to do business in Canada itself. General Electric is planning to expand its production and research center in Peterborough, Ontario, a facility which has been in operation since 1955, but has never before experienced such growth rates in sales of nuclear technology; the management claims that orders are up 600% over recent years. The expanded GE facility will include an R&D lab, both for developing new methods of manufacturing fuel and a production line for

new fuel bundles. Meanwhile, the Ontario government plans to begin construction of two new plants and to refurbish others; and the two Ontario-based nuclear power providers, Bruce Power and Ontario Power Generation (OPG), are seeking permission to build four new reactors each. Add to this list a project in the Alberta tar sands to construct two 1,100-megawatt reactors, providing power to the area, as well as heat and steam for industrial purposes. Finally, MDS Nordion, the world's largest producer of medical isotopes, is building two reactors in Chalk River, Ontario, which will be dedicated solely to the production of medical isotopes, such as Cobalt-60, used for cancer treatment and the sterilization of medical supplies.

In a recent poll by Ipsos Reid, available at the website of the Canadian Nuclear Association, it was found that support for nuclear power in Canada is now at 44% nationally, compared to 35% only two years ago. Support in Alberta is 47%, and 38% in British Columbia, up 16% and 18% respectively, in the past year alone. In Ontario, the province with the vast majority of Canada's reactors, support runs at 63%. As late as 1988, more than half the nation supported the commercial use of nuclear power; however, with the overwhelming propaganda campaign launched by the lying environmental lobby after the 1986 Chernobyl accident in Ukraine, public support collapsed. It has been a long road back for the nuclear industry; and, with an immaculate record of safety and reliability, it is ever more difficult for the greens to maintain their fanatical opposition. Ironically, with the current hysteria over climate change, many greens are also changing their tune. Who would have imagined that nuclear power could be the white knight of the environmental movement! Even Prime Minister Steven Harper is turning towards nuclear energy as a necessary part of any viable, long-term energy strategy, although he is not overly vocal for fear of being harassed by the environmentalists.

As the nuclear renaissance gains momentum, the anti-nuclear lobby continues to regurgitate the same tired and baseless complaints, such as AECL's inability to complete projects on time. Claudia Lemieux, spokeswoman for the Canadian Nuclear Association, debunked this claim in discussion with this writer. "They use that excuse because it scares people. AECL has been a very active nuclear reactor



Ontario Power Generation

The Pickering Nuclear Generating Station east of Toronto on the shores of Lake Ontario is one of the world's largest nuclear facilities. Its six CANDU reactors supply 3,100 megawatts of electricity, enough to serve a city of 1.5 million. Now Canada's nuclear industry is getting ready to launch a new generation of CANDU reactors—if the nation chooses to join the nuclear renaissance.

builder. Their Cernavoda II is actually being fuelled now, and it's going to be providing electricity to the grid in September. They are doing the refurbishment of the reactor in Argentina, and they are doing refurbishment in South Korea; so they are not getting these contracts because they aren't delivering. They are delivering. So these are old arguments, primarily due to Darlington [a nuclear plant near Toronto, where significant cost overruns were incurred during construction], which was primarily due to a lot of political interference [by environmentalists]. They are holding onto those old arguments because people just don't know, they have no idea how [nuclear power] works."

By 2020, more than two-thirds of Canada's coal-fired power plants will reach the end of their useful lives, and their replacement will require approximately \$150 billion in capital investments. Despite the calls from environmentalists for increased spending on "renewable" energies, governments are turning to nuclear as the cheapest, most reliable source of energy to replace whatever capacity is to be decommissioned. Under current conditions, Canada's nuclear plants are pro-

ducing power at approximately five cents per kilowatt hour, while the most competitive wind farms come in at more than eight cents per kilowatt hour; solar power is not even close to these numbers. Other forms of power, such as oil and gas, are cheap as long as oil and gas prices are cheap, which, as everyone knows, is no longer the case.

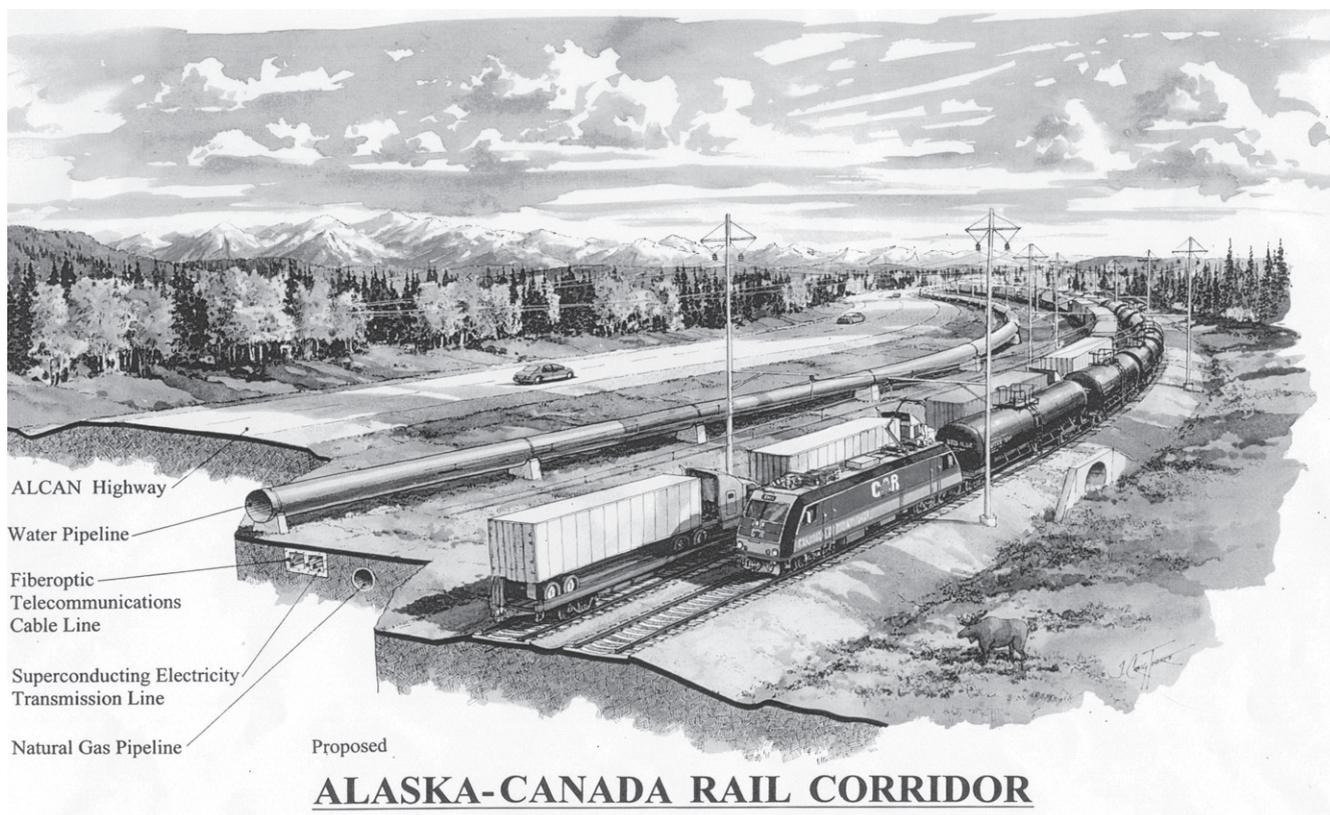
Within several years, AECL will be ready to produce its new generation of advanced CANDU (CANada Deuterium Uranium) reactors (ACR). These ACR units will use enriched uranium, with 2.5-3% fissionable material, as opposed to the current CANDU reactors, which use natural uranium containing approximately 0.7% fissionable material. Using enriched uranium will increase the operating efficiency of the reactors as well as their total energy output. The ACR will have a lifetime of 60 years.

Other fascinating prospects for the Canadian nuclear industry include the development of thorium-based power systems. Currently India is engaged in research to take advantage of its vast thorium reserves. Canada, also having reserves sufficient to power Canada's economy for many hundreds of years, could engage India in joint projects to more rapidly develop this area of knowledge. As reported by P.G. Boczar, P.S.W. Chan, et al., to the International Atomic Energy Agency (IAEA): "The high neutron economy of the CANDU reactor, its ability to be refuelled while operating at full power, its fuel channel design, and its simple fuel bundle provide an evolutionary path for allowing full exploitation of the energy potential of thorium fuel cycles in existing reactors....

AECL has done considerable work on many aspects of thorium fuel cycles.... Use of the thorium fuel cycle in CANDU reactors ensures long-term supplies of nuclear fuel, using a proven, reliable reactor technology. Those same CANDU features that provide fuel-cycle flexibility also make possible many thorium fuel-cycle options (www.iaea.org/inis/aw/fnss/fulltext/te_1319_4.pdf)."

The Future Is Rail

In a January interview with *EIR*, Canadian Wheat Board (CWB) director Ian McCreary voiced his frustration over the miserable state of Canada's rail infrastructure, describing how, for example, many farmers are being compelled to truck their produce sometimes 50 miles to a rail depot, while the service even then has been abysmal—that is, if the trains show up at all! Since the 1960s, Canada has ripped up thousands of miles of track, mostly branch lines that served outlying farm districts, while investment in what remains has been meager at best. Incredibly, as Brian Morris, transportation analyst for the CWB, reports, it currently takes 9-10



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Were Canada to take part in the Bering Strait tunnel project, it would lay the basis for the long-delayed development of northern Canada. The plans already exist. This artist's drawing of the Proposed Alaska-Canada Railroad near Lake Kluane, Yukon, was commissioned for the Canadian Arctic Railway Co. Shown are the railroad tracks, the ALCAN highway, and lines for water, fiberoptic telecommunications cable, superconducting electricity transmission, and natural gas.

days for freight trains to travel from the mid-prairies to Vancouver, a trip of less than 2,000 kilometers!

The policy of the rail companies has been to shift their costs onto the backs of farmers and manufacturers; however, this policy is fast approaching its end. Derailments are increasing; the system is over-taxed; and the total amount of track continues to shrink. Last Summer, when the water level in the Great Lakes was significantly lower than usual, the fragility of the system became apparent as the additional freight could scarcely be managed. The extent of the crisis also becomes clear in the raw fact that Canada has zero capability to produce its own tracking; any new rail tracking must be imported. Although it is true that Canadian Pacific is engaged in certain projects along its main Vancouver-Winnipeg corridor, these are simply not sufficient for the future needs of the country.

The belief of some, particularly in the deindustrialized East, that Canada can function without a comprehensive, advanced rail network, is an absolute fantasy; there is little future for the country should it not make high-speed, electrified rail a primary mode for the transportation of goods and people, while also preparing to leap into magnetic levitation

technologies, which will eventually replace high-speed rail. One option for maglev development would be a transportation corridor from Montreal to Windsor, which is the most heavily populated and industrialized region of Canada, to serve as a test case for future maglev systems. This system could also tie into similar systems being examined in the United States.

One of the great economic benefits of such projects, apart from the massive savings that would accrue from reduced transportation costs, would be the stimulation of the productive, physical economy. The government, by financing great infrastructure projects, can create the demand for increased production of goods, while at the same time increasing the productivity of the population, per capita and per square kilometer.

Recently the Chinese shipping firm COSCO announced that it will begin shipping to Prince Rupert in northern British Columbia, as the facilities in Vancouver, like most major ports on the West Coast, are experiencing great congestion. This will require an upgrade of current port facilities as well as local rail infrastructure to handle the expected increase of goods. This type of project, and the obvious need for it, demonstrates

the viability of the Bering Strait project.

Thus it is most propitious that Russia has stepped forward with exactly the type of great project required to uplift mankind. Were Canada to participate in building this transportation link, the basis would be laid for the long-delayed development of northern Canada, and for expanded collaboration with Russia to overcome the many difficulties posed by the North. Furthermore, the demand for hundreds of thousands of tons of steel, concrete, and rail tracking, as well as for massive investments in capital goods and jobs, would give Canada's failing industries a new birth; as the economic benefits accrue, the entirety of Canada's existing rail infrastructure can be upgraded and expanded to the benefit of the entire nation and its neighbors.

Overcoming the Culture

While the Federal government has issued no response, that from the Canadian media to the Bering Strait project has been lukewarm at best; at worst, typified by the *Vancouver Sun* and the *National Post*, the coverage has been deliberately fraudulent. When energy economist Vince Lauerman was recently interviewed by the *National Post*, he demonstrated his and the paper's incompetence when he claimed, "You're sort of going from one fairly underdeveloped, underpopulated place to another that's somewhat underdeveloped and underpopulated and doing it in an extremely expensive way." Lauerman's stupidity is revealed with a simple reflection on how the once barren Canadian West was populated in the first place! That is, that the continental railway had, necessarily, to be built first. However, to those unversed in physical economy, and lacking a more rigorous understanding of history, his critique could perhaps seem plausible. Lauerman should consider that if humankind actually listened to his advice, we would still be living in caves.

Lauerman is only typical of the cultural deficiencies which plague Canada. Having never fully experimented with the American System of political-economy of Alexander Hamilton, President Abraham Lincoln, and his advisor Henry C. Carey, nor having taken measures equivalent to those of President Franklin D. Roosevelt during the Great Depression, Canada has yet to experience that unique progress which has occurred historically when American System methods are coupled with sovereign governance. Rather, our history reveals but piecemeal applications which, up to this point, have left the bulk of the nation's territory empty of human habitation. Canadians have forgotten that the primary issue of 19th-Century Canada, as for the United States, was the development of continental railways, industrialization, and the settlement of the Western territories.

At the same time, fools such as environmentalist media personality David Suzuki parade around attacking human progress as essentially evil! In April of this year, Suzuki and Al Gore spoke to a fawning mass of young Canadians in

Montreal. In his speech, Suzuki compared humanity to cancer, because, in his view, apart from man, only cancer can multiply exponentially. He also employed a metaphor of bacteria living in a jar, consuming their limited food supply at an escalating rate, as population increases, finally reaching the point at which the entire colony perishes: This, Suzuki said, was human nature. Suzuki also made the outrageous claim that the point at which humanity went wrong was the agricultural revolution!

Suzuki represents the fascist tendency within the so-called left: a man who hates humankind, yet is considered one of Canada's greatest icons. And yet, despite the operations of those openly against civilization, Canadians are picking themselves up once again, after so many decades of decadence and backwardness. Nuclear engineering is increasing in popularity in Canada's universities, with an entirely new technological institute in Oshawa, Ontario, the doors of which first opened in 2003—the University of Ontario Institute of Technology. The nuclear engineering program and similar programs at other universities receive generous grants from the nuclear industry to help meet the growing demand. Canada is also participating, in conjunction with other nuclear-powered nations, in the development of fourth-generation reactors; because, as Claudia Lemieux explains, "the thinking is shifting. [The AECL is] looking at developing in their next generation of reactors—they're looking at another kind of system—and then that changes the whole dynamic. They are looking at what are called 'non-proliferation technologies' which are proliferation resistant: You are using them to produce electricity, but they can't be used for other things—that's what they're working on now, because the thinking is that the only way used fuel is going to be acceptable to people is if it is used and used and used again."

Whether Canada joins the international rail and nuclear renaissance will be determined by the political battle now being waged by the patriotic forces of the nation. Therefore, Canadians should reflect upon the words of Germany's great poet Friedrich Schiller, who wrote of the failure of the French Revolution to establish true republican government, as in the United States: that a great moment had found a little people. Will Canadians fall victim to their worst cultural tendencies, or will they rise above their littleness, their regionalism, and their pessimism? Will Canada choose the path towards true sovereignty? In 1903, when Canada's population was a paltry 5.6 million, perhaps our greatest Prime Minister, Wilfrid Laurier, envisioned a Canada of 60 million citizens, one crisscrossed with railroads, factories, and farms, before the youth of his day had passed on. With a little under 33 million today, with collapsing infrastructure and industry, and with true Canadian patriotism (which simply means a passion for development) seemingly forgotten, it is clear that much is yet to be done; but if the Canadian LaRouche Youth Movement has its say, Canada will become the nation it has often promised to become.