There's a gap in public policy between the reality of global climatic change and responses to it. Science shows that it's real and it's serious, but this isn't about debating the reality of global climatic change. It's part of the nascent discussion on a transition to a green economy that our politicians need to hear.

While Justin Trudeau has acknowledged global climatic change, in action, he is Stephen Harper in Elizabeth May's clothing. He's offering Harper's Paris carbon emission targets and a ridiculously low carbon tax that won't come into effect until after the next election. Trudeau hasn't ruled out more pipelines, given the fossil fuel industry a deadline or discussed cuts to fossil fuel industry subsidies. Contrary to campaign innuendo, he's approved a massive fracked natural gas project in BC.

Fossil fuel combustion is the primary cause of global climatic change. Fossil fuels are rapidly depleting. Fossil fuel combustion is the primary cause of air pollution, a major cause of human disease and death. These are reasons to initiate an aggressive plan to support energy conservation and rapid transition to renewable energy, the hallmarks of a green economy.

While some deny global climatic change, our politicians deny that energy conservation and renewable energy lower energy costs, increase energy security, cut health care costs, and reduce the threat of catastrophic global climatic change. We can save money and protect the environment!

A transition to a fossil fuel independent economy will require change. Change is frightening. Will the change achieve its goals, be on budget, and be on time? What will be the human and economic costs?

Nobody can guarantee goals will be met on time or on budget. However, the certainty is high that inaction will precipitate more climate warming; ongoing species extinctions; continued ocean and forest degradation; more frequent, more powerful, more costly tropical storms; melting glaciers, rising oceans, devastating flooding.

We don't have a choice. We either plan a smooth transition or accept the perils of our unsustainable economy.

There will be costs. Capital will need to be invested to build or modify infrastructure. Where will we find the capital? A carbon tax or by reallocating the \$2.9 billion in public subsidies currently given to the fossil fuel sector.

Could we perform the magic used to save the banks during the Global Financial Crisis of 2008? Six central banks including the Bank of Canada conjured \$17 trillion. A transition to a green economy would cost far less, the benefits would be far greater, and the money would be an investment not a gift.

The larger question is not about money, but jobs or the human cost of the transition.

There will be job losses as coal mines, oil wells, gas plants, tar sands, and fossil fuel transport, refining, and processing positions are eliminated. The transition must be carefully planned, humane, and backed by strong public support.

We need to understand that a healthy economy and a health society are only possible within a healthy environment.

We need to accept the need to change and structure the change benignly to create a more sustainable economy and a healthier society.

We need to be humane and guarantee jobs for everyone who loses their job with new jobs in the green economy. What will those new jobs be?

Wind energy is a mature technology for generating electricity at a lower cost than coal. Every province has abundant wind resources. Given Canadian expertise in manufacturing aircraft wings, could we design and manufacture wind turbine blades suited for wind regimes across Canada? Can we commit to generating 25% of Canada's electricity using Canadian manufactured wind technology within 25 years?

Solar photo-voltaic technology converts sunlight into electricity and promises low cost, long-life electricity generating capacity. Could we convert redundant manufacturing facilities throughout Ontario and Quebec into solar PV manufacturing plants? Could co-operatives profitably lease the flat rooftops of commercial buildings, install solar PV arrays, and sell the power to utilities? Could we commit to generating 15% of Canada's electricity using Canadian manufactured solar PV technology within 25 years?

Given Canadian expertise in deep drilling, could we apply that expertise to developing geothermal energy? A geothermal power plant injects water into the ground through a closed loop and recovers steam to drive turbines. Could we reallocate some of the \$2.9 billion annual handout to the fossil fuel industry to the owners of coal-fired power plants to convert their facilities to geothermal? Could we commit to generating 10% of Canada's electricity using Canadian manufactured geothermal technology within 25 years?

A cornerstone of a transition to a green economy is a commitment to full employment. Another cornerstone could be to work with Canadian fossil fuel extracting companies and offer low interest loans, loan guarantees, grants, wind rights, drilling rights, or access to sites suitable for solar PV so Fort McMurry, Lloydminster, Estevan, Fernie, and Newfoundland become clean energy producers rather than industrial wastelands.

Even in Canada buildings can be constructed from conventional building materials that are energy neutral. While the capital cost of these buildings may be 20% higher than conventional buildings, energy costs are 90% lower. The additional capital costs can be recovered quickly in lower operating costs.

Beyond building new energy neutral buildings, existing buildings can be retrofitted affordably to near energy neutral standards. Apartment buildings can be given a second skin to increase their thermal efficiency. The Now House project demonstrated how a 60 year old single residential dwelling could be renovated affordably to energy neutrality.

Can we train former tar sands workers to build new energy neutral buildings or to renovate existing buildings to energy neutrality?

Can we electrify our national railroads, expand public transit with more light rapid transit, build dedicated bicycle lanes or widen sidewalks to add a lane for bicycles?

Beyond energy conservation, renewable energy, and transportation, can we do more to protect our surface and groundwater, our forests, parks, and greenbelts?

What I'm suggesting is reminiscent of FDR's New Deal, a program that positioned the USA first for decades. As FDR said, "One thing is sure. We have to do something. We have to do the best we know how at the moment... " and at the moment we know that business as usual is no longer an option.