

GREEN BONDS

Creating a landmark Green Bond in Canada was not an easy task.



PHOTO: Alex Lamey

by Tom Rand

WITH MY ARMS GESTICULATING WILDLY at a B&B in Canmore, Alberta, I told my Action Canada colleagues about the sort of geeky vision that haunts the dreams of a Cleantech engineer and financier like myself. Eyes wide open, they heard how windmills circling Hudson's Bay might power the North American grid, how the Bay of Fundy holds more power than a fistful of nuclear reactors, and how geothermal could transform the way we heat and cool our buildings. Canada is uniquely positioned—our geography speaks not just to our being an energy superpower but a renewable energy superpower!

How do we get there, I asked, and more importantly, how do we engage Canadians in this vision? "Green Bonds!", shouted my colleague Andrew Sniderman. A public policy project was born.

If I want to build a coal plant today, I can borrow from the bank at a super-low rate. Why? Because commercial banks are comfortable with coal.

Indeed, the Government of Canada has committed itself to deep, long-term greenhouse gas and air pollutant reductions. Outlined in the Turning the Corner regulatory framework, we're committed to a 60 to 70 per cent reduction below current levels by 2050. We ain't gonna get there with

compact fluorescents and hybrid cars—we need massive renewable energy infrastructure, and we need to start building it now.

The only long-term solution to the carbon crisis is a strong, market-wide pricing signal—preferably a global pricing signal (for more, see the 2007 Cleantech Issue)—but that signal will come only slowly and incrementally. No one wants to shock the economy. The National Roundtable on the Environment and the Economy (NRTEE) has concluded that a price on carbon of around \$270 a tonne will get us to that commitment, but that price level won't be reached for years. In the meantime, energy producers are investing in energy infrastructure that will last a lifetime. How to change their behaviour today, before that pricing signal really hits?

Here's where Green Bonds comes in—a government-backed financial instrument designed to engage the public by raising capital to accelerate renewable energy production. The idea is to lend this capital at low rates to energy producers who choose renewable methods of production.

The Europeans issued their Climate Awareness Bond in June 2007. The idea has been tested, and it works.

If I want to build a coal plant today, I can borrow from the bank at a super-low rate. Why? Because commercial banks are comfortable with coal; it's been around a long time. It's safe. If I want to build a commercial-size bio-gas plant, or an industrial-scale tidal plant, the rate at which I have to borrow is really high. That means renewables face a significant disadvantage—and we propose to address that market gap by supplying cheap debt to qualified companies for qualified technologies.

What we call a "threshold technology" is one that has been proven from an engineering perspective and would become price-competitive given cheap capital. Most

renewables have high capital costs and low operating costs—perfect for a low-cost debt solution. There are proven pilot projects funded by Sustainable Development Technology Canada that cry out for commercial-size funding.

We can't wait for the stodgy commercial banks. Let's face it—that's why we like them, they're safe. But that cozy, safe feeling comes at a price—they cannot play an enabling role for large-scale, massive roll-outs of renewable energy production.

Why a bond? Why not just have the Feds issue a Treasury Bill? Don't underestimate the importance of engaging the public in a positive way on the climate change issue. Canadians are biting at the bit to do something other than change a light bulb. We conducted a poll through SES Research: 81.8 per cent of Canadians support Green Bonds, and 62.2 per cent say they would purchase them.

Green Bonds is neither a magic bullet nor a permanent solution. It's designed to fill a temporary market gap until a carbon pricing signal can take over—Green Bonds will accelerate the rate at which we build our renewable infrastructure.

We'll release all the nitty-gritty details of our proposal on June 2 at the Action Canada conference in Toronto. Glen Hodgson, Chief Economist of the Conference Board of Canada will be there to keep us honest.

Next issue I'll give you the real goods. What are the bond mechanics? How are the funds disbursed? How is the risk of defaulted loans mitigated? Most importantly—why is this policy more efficient at accelerating the adoption of low-carbon technology than tax credits, or other direct subsidies? Stay tuned. **CK**

Tom Rand, B.A.Sc., M.Sc., M.A, P.Eng., is an Action Canada Fellow and Cleantech venture capitalist.