Canada's Carbon Offset Projects Probably Don't Offset Carbon. What Could Replace Them?

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Canadian Conservative Party leader Pierre Poilievre made contesting the federal consumer "carbon tax" (really a self-contained system of rebates) a central part of his public position in the run up to this year's election, and prime minister Mark Carney eventually abolished the individual program. With strong cross-party support for a radical overhaul of Canada' carbon pricing, other elements of carbon trading, including carbon offsets, could be the next to face scrutiny.

Carbon offsetting is the practice of offsetting carbon emissions through funding equivalent emissions avoidance or reductions elsewhere via carbon credits. Whether as part of national or regional cap-and-trade systems or voluntary markets, carbon offsets are a key part of climate finance. However, their use remains controversial, with 80 civil society organizations signing a letter last year citing their failure to effectively reduce total emissions, their potential for abuse, and possible harms to

communities and wildlife. Largescale and well-publicized studies have cast doubt on the ability of the majority of carbon offset projects to effectively reduce emissions, with one study finding that only 12% of global projects constitute real emissions reductions. Carbon offsets have been part of Canada's climate transition strategy since 2016. British Columbia alone logs 23 projects on the BC Carbon Registry, offsetting carbon through forest management, fuel switching and energy efficiency. On the eve of the election of the next Leader of Canada's Liberal Party, let's take a look at what could replace this oft maligned and poorly understood part of climate change policy to better serve all Canadians and effectively reduce carbon emissions.

Most suggestions of how to improve carbon offsets hinge on the specifics of improving oversight and rigor of accepted protocols. Specific reforms for Canada's carbon offset projects could start with increasing transparency and oversight of the carbon offset process, reducing the red tape needed to launch projects. Mandatory publication of industrial carbon offset transactions would allow for greater transparency and aid public understanding of how offsets are used. Another suggestion is the introduction of some measure of harmonization between the nine provincial systems, each of which currently operates more or less independently, creating a patchwork of confusing regulation and conflicting methodologies. Key benchmarks, limits and allowances are different across jurisdictions and across different sectors.

Most carbon offset projects in Canada are forest-based.

Still more suggestions for reform include extending the rights of Canada's Indigenous Peoples to profits from the value of carbon offsets on their ancestral lands, even when Aboriginal Title has not been proven. Courts have affirmed that certain other rights, such as commercial logging rights, can extend to Indigenous People.

To be considered "permanent" and eligible for inclusion in many Canadian carbon trading systems, including British Columbia's, carbon projects must prove emissions avoidance, storage or reduction for 100 years. Extending this practice to proven emissions reductions of 1000 years, or indeed indefinitely, would radically change the nature of carbon project management across the globe. Many forest-based

carbon offsets, which form the basis of British Columbia's carbon projects, would no longer be eligible. Burning fossil fuels, which releases carbon locked away for millennia, could theoretically be offset only by geological or technological credits with a similar timeframe. Some nature-based solutions such as coastal wetland restoration, which theoretically could lock carbon into marine ecosystems for thousands of years, could still make the cut under reformed permanence rules for carbon trading, but forest-based offsets projects such as BC's Great Bear rainforest would probably not.

Some experts have suggested replacing the equivalent carbon credit, in which one ton of CO2 emitted by large polluters is offset by one ton of CO2 avoided elsewhere, with another measure that takes some of the system's flaws into account. How exactly to calculate an alternative measure remains up for debate, with various proposals including combining carbon and biodiversity indicators into a single figure, discounting future or temporary emissions reductions. One study suggests giving a ton of carbon sequestered for 50 years a credit value of 0.3–0.5 tons relative to a ton of carbon emitted by an industrial polluter.

The mechanics behind such systems could complicate an already overloaded system even further, and any system is likely to be open to the same abuse and exploitation as the current one. Reforming existing systems may be an intuitive place to start, but critics comment that identifying and eliminating specific loopholes that weaken the

equivalency of carbon offset projects to their industrial counterparts could never be truly effective. They point instead to a wider systemic issue: tying carbon projects to market mechanisms inherently incentivizes a race-to-the-bottom approach, with even well-meaning managers of carbon offsets incentivized to find workarounds to whatever regulatory system they are presented with.

If these projects can't effectively reduce total carbon emissions, then taking away the option for industrial polluters to offset their emissions could force them to take the climate transition more seriously. However, carbon management projects and land stewards could be left without a viable profit-making mechanism. Another option is to scrap the concept of using carbon offsets to ensure regulatory compliance, but retain voluntary credit schemes which allow companies or individuals to purchase carbon credits independently of regulatory frameworks.

It's true that carbon markets are not the only way that climate-friendly projects can be funded. Governments, companies and non-governmental organizations can and do include carbon emissions reduction as a key criterion in selecting where and how to invest funds from other sources. But as it currently stands, carbon credits are a key lifeline for many climate-friendly projects in Canada and across the world, and alternate funding pathways are inadequate and incomplete. Removing the unwieldy, costly, and often ineffective focus on quantifying and monitoring exact amounts of carbon sequestered or

emissions avoided with carbon credits could free up resources for financing climate-friendly projects with broader social and environmental benefits.

The current conversation around Canada's carbon pricing structures provides an opportunity for the country to rethink how and if carbon offsets are used in climate policy. Existing alternate funding mechanisms aren't yet ready to meet this challenge; but without bold new proposals for funding climate change, carbon trading may be here to stay.