

Problems with CleanBC roadmap

By **Robert McCullough**

Law360 Canada (May 9, 2025, 11:50 AM EDT) -- British Columbia's CleanBC program was initiated in 2018. It has spawned innumerable websites, reports, studies, and communiques. In February 2023, it was updated with the Roadmap to 2030 plan.

The Roadmap is plainly aspirational. It is, as it says, a roadmap. However, 60 per cent of the way to the objective, it is unclear whether real progress is present.

We are entering the final five years of the Roadmap without a clear sense of how many emissions — MtCO₂e, or millions of tonnes of CO₂ — have been reduced. The Roadmap indicates achievements in eight different areas: low carbon energy, transportation, buildings, communities, industry, forests, agriculture and "negative emissions technology." The most recent materials are from early 2024 — the 2023 Climate Change Accountability Report and its supporting material — which describe a myriad of small programs (92 in fact) but very little actual detail on achievements. MtCO₂e, the all-important measure of progress, is mentioned very infrequently in these reports.



Robert McCullough

Successful programs report data. Unsuccessful programs recount aspirations. CleanBC, so far, mainly reports aspirations. With only five years left in the Roadmap, there is little time left to deliver the CO₂.

There are two significant sources of CO₂ missing from this chart and its 92 programs. First, the burgeoning natural gas export market to the United States and soon, with the completion of two liquefied natural gas (LNG) terminals in



PeterHermesFurian: ISTOCKPHOTO.COM

British Columbia, exports of LNG to Asia. Exports are very likely to continue increasing. British Columbia does not add the emissions from fossil fuel exports to its greenhouse gas (GHG) scorecard.

In the chart above, the years from 2025 through 2030 have been forecasted from historical data starting in 2000. The critical question is not whether the acreage lost to fire is increasing year to year, but whether the rate of change is also increasing.

Emissions from natural gas exports

The argument for not including combustion of fossil fuel exports is that the cleaner and less expensive natural gas will displace existing coal- and oil-based units elsewhere. The problem with this theory is that the delivered price of LNG in Asia is greater than the marginal cost of coal.

Landed prices in Japan, for example were US\$12.33/metric million British thermal unit (MMBtu) for January 2025. Mine mouth coal marginal costs are usually a fraction of landed LNG marginal cost.

There is enormous overhead in both liquefaction and transportation of LNG. While natural gas is inexpensive in North America, the North American price plus LNG liquefaction and ocean transport makes delivered LNG very expensive.

While low natural gas prices have driven widespread retirements of coal units in the United States, this is not true in Asia.

At current LNG delivery prices, the fuel is basically a peaking resource. Baseload units still continue to favour coal. When the LNG market saturates, as it did a decade ago, LNG terminals are delayed or cancelled. British Columbia had 20 proposed LNG terminals before the fall in price. At today's prices, the two existing projects are likely to be completed, but the outcomes of President Donald Trump's "drill, baby, drill" and fast-track approvals of U.S. LNG terminals are very likely to reduce those prices in the years to come.

Wildfire emissions

The combination of higher temperatures, high winds and a prolonged drought have caused the number of wildfires to spike in recent years. There are many reasons to be concerned about wildfires, but one of the most pertinent to CleanBC is that this is the major source of MCO₂e in the province.

Emissions from British Columbia's wildfires basically dwarf all other sources of CO₂.

The most recent version of the Climate Change Accountability Report is from November 2023. Quite a bit has changed since. The disastrous November 2024 U.S. election is about to lead to dramatic changes for our economy. North American droughts, storms and wildfires continue to increase, and the data indicates that progress to date on reducing total emissions in B.C. has faltered.

Adding the two missing sources of CO₂ to the Roadmap chart gives an entirely different picture of the CleanBC program's future.

The blue line climbing off the top of the chart represents the MtCO₂e (metric tons of carbon dioxide equivalent) over the next five years. The emissions from British Columbia wildfires in 2023 reached 310.6 MtCO₂e — roughly five times the total level of B.C. MtCO₂e estimated in the Roadmap.

What has gone wrong?

Clearly, the current CleanBC program will not help meet the challenges of global warming if MtCO₂e is greater in 2030 than it is today.

The bottom line is that CleanBC's success requires ignoring major CO₂ increases simultaneously taking place in British Columbia. The many small programs need to be redirected to areas with much greater CO₂ emissions.

A program-by-program review is below:

1. Low-carbon energy: 13.6 MtCO₂e savings by 2030

CleanBC addresses only three possibilities: changes in existing fuels, hydrogen, and replacement of diesel generators in Indigenous communities. These are all possibilities. Unfortunately, they have proved either difficult or insignificant. A major development by 2030 seems unlikely.

The final item, replacing diesel in Indigenous communities, is *de minimis* considering the scale of the emissions challenge.

2. Transportation: 7.5 MtCO₂e savings by 2030

Estimated savings: .038 MtCO₂e (heavy trucks)

Light-duty vehicles such as cars and light trucks, heavy trucks and railroads have always been the low-hanging fruit of emissions savings. Unfortunately, the most recent accountability report provides little actual data.

The lowest of low-hanging fruit — replacement of obsolete diesel trucks used for short hauls from terminals to warehouses and factories — is not mentioned.

There is an area of confusion that appears several times in the report, which confuses renewable fuels with reduction in emissions. While renewable fuels do provide less carbon, the savings are not large — the detailed study on UPS vans and semis indicated only a 4.2 per cent savings.

3. Buildings: 0.6 MtCO₂e savings by 2030

The buildings section reprises programs that have been in place for many, many years. There is nothing innovative in this section of the plan.

4. Communities: 0.4 MtCO₂e savings by 2030

Like the previous section, the community programs are hardly new or likely to make major changes.

5. Industry (including oil and gas): 11.1 MtCO₂e savings by 2030

Estimated achieved savings: .02 MtCO₂e (heavy trucks)

Another area of low-hanging fruit is industry. Unfortunately, most heavy industry finds marginal adjustments difficult to implement. For chemicals, metals and refining, significant savings are very possible, but often only at the cost of rebuilding the entire facility.

6. Forest bioeconomy: 0.3 MtCO₂e savings by 2030

Obviously, this is the major issue to be addressed by CleanBC. British Columbia is a vast area. Wildfire risk is increasing, but prevention and proactive response has lagged behind. New technologies are now being implemented across North America.

However, the creation of a comprehensive program is not remotely addressed in CleanBC.

7. Agriculture, aquaculture and fisheries

As with the sections on buildings and communities, there is little new or substantive in the short discussion on page 31.

8. Negative emission technologies

The Getting Results narrative simply skips discussing negative emissions technologies.

Conclusion

There are many, many programs in CleanBC. As of the most recent 2023 Climate Change Accountability Report, very little substantive progress has been reported. Studies are being studied, plans are being planned and meetings met. Sadly, MtCO₂e are not being reduced — or if they are, the successes are not being reported.

CleanBC is on a limited timeline with little focus on actually achieving the stated objective. Moreover, it has omitted addressing the two most important greenhouse gas sources in British Columbia — natural gas exports and wildfires.

Robert McCullough is principal of McCullough Research in Portland, Ore., and advises governments, utilities and Indigenous groups from California to Quebec on energy issues.

The opinions expressed are those of the author(s) and do not necessarily reflect the views of the author's firm, its clients, Law360 Canada, LexisNexis Canada or any of its or their respective affiliates. This article is for general information purposes and is not intended to be and should not be taken as legal advice.

Interested in writing for us? To learn more about how you can add your voice to Law360 Canada contact Analysis Editor Peter Carter at peter.carter@lexisnexis.ca or call 647-776-6740.