CLEAN ENERGY CANADA

SUBMISSION

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Submission to the CleanBC Review

Clean Energy Canada is a climate and clean energy program within the Morris J. Wosk Centre for Dialogue at Simon Fraser University.

We are pleased to provide this submission in response to the Ministry of Energy and Climate Solutions' independent review of CleanBC policies and programs.

Summary

When CleanBC was first launched in 2018, it was among a wave of climate plans that followed the 2015 Paris Agreement. This era of climate action was characterized by a high-level of international alignment and cooperation on climate ambition, a central role for top-down government policy, and an emphasis on greenhouse gas (GHG) emissions reductions as the principal objective. Since its launch, the plan has been successful in starting to decouple economic growth and greenhouse gas emissions.

However, B.C. — like much of the rest of the world — finds itself at an inflection point. A climate plan focused solely on GHG reductions is no longer appropriate given the realities we're facing in 2025.

In B.C., new challenges in the form of geopolitical conflicts, trade tensions with our largest trading partner, a tight fiscal situation in government and a worsening cost of living crisis have moved climate down the list of concerns for many British Columbians.[1]

On the other hand, the global energy transition continues to accelerate. Key clean technologies—including renewable energy, heat pumps and EVs—have achieved or are approaching cost parity with their fossil fuel equivalents. As Canada seeks to diversify its trading partners away from the U.S., this has direct implications: among Canada's 10 largest non-U.S. trade partners, all of them have net-zero commitments and carbon pricing systems, and roughly

[1] Despite this shift in priorities, polling consistently shows that British Columbians expect their government to maintain climate action and reward governments who advance it. As of June 2025, Only 10% of B.C. residents feel the government should take *less* action on climate change, while 90% feel the government should do as much or more. Furthermore, a post-mortem analysis of the 2025 election showed that voters prefer parties and politicians who treat climate change as a serious threat, with significant political returns for politicians who support industrial carbon pricing and clean energy development.

half apply carbon border adjustments on imports and have domestic EV requirements reshaping their car markets.

Creating a renewed plan that meets these realities — both addressing the new challenges and seizing new opportunities from the energy transition — will require B.C. to reorient its approach on climate action in the following ways:

From 2017... Siloed	To 2025... Systemic
Target centric - how much do we have to cut emissions	Action centric - what and how much can we do to cut emissions AND achieve other benefits
Emphasis on GHG reductions	Emphasis on clean competitiveness, energy security, affordability and climate protection
Climate action as an environmental issue	Solving for multiple challenges, seizing opportunities with multiple benefits in order to win public and stakeholder support
Top-down, model driven policy design to achieve GHG targets	Bottom-up, integrated policy design to create enabling conditions, deliver institutional/regulatory modernization, secure investment and support clean technology deployment

Under this renewed approach, climate action in B.C. would still be anchored in the overarching goal of achieving a net-zero economy by 2050. However, Clean Energy Canada recommends that **the next phase of CleanBC should focus on identifying and implementing measures that support an effective path to achieving the most ambitious climate action possible over the next five years, in a manner that advances other priority objectives — specifically affordability, energy security and economic competitiveness.**

In summary, modernizing B.C.'s approach to climate action will require acknowledging that 2025 requires a more systematic approach, and a focus on a suite of new objectives:

- **Connect the dots between climate action and affordability.** Identify and prioritize climate policies that enhance energy security and bring down costs of living for British Columbians.
- **Support clean economic growth, investment and enhanced competitiveness.** Leverage the build out of B.C.'s clean electricity grid to stimulate economic growth, investment and job creation.
- **Maximize cost-effective emission reductions.** Ensure that climate action remains ambitious but grounded in the current fiscal, economic and political challenges B.C. faces.
- **Create momentum by updating how we measure success.** De-emphasize short term greenhouse gas emission targets in favour of new metrics that guide approaches and

measure progress in ways British Columbians can better understand and experience direct benefits from. This could include clean technology deployment targets, clean investment attraction and clean electricity deployment, all of which are the essential building blocks to achieving our long term emission reduction goals.

Responses to specific questions

With respect to CleanBC's policies—inclusive of legislation, regulation and government direction—that directly reduces or enables emission reductions:

What is working well?

There are a number of key policies that play a critical role in helping the province seize economic opportunities, support access to cost saving clean technologies and drive emissions reductions across the province, including:

- **Low carbon fuel standard** - The LCFS is one of the most effective climate policies B.C. has deployed, driving significant reductions in transportation largely, stimulating clean innovation, and spurring growth in some sectors, all while remaining largely invisible to the consumer.
- **Other regulations -** B.C. has put in place a variety of effective regulations — including the energy step code and methane emission regulations — that tackle some of the key sources of emissions in a manner that is predictable and cost-effective. The energy STEP code is a great model for cost-effective policy that takes into account regional differences and ensures new builds are comfortable, efficient and affordable for households, without increasing costs for developers.

  The output based pricing system in particular is a key regulation, and research has shown that large emitter trading systems provide both meaningful emission reductions, and support the competitiveness of industries.
- **ZEV Act and related light-duty vehicle policies** - B.C. is a North American leader on electric vehicle uptake. Supported by smart policies and programs such as the Go Electric rebate, there are now more than 160,000 EVs on B.C. roads and the province nearly reached its 2026 EV sales target of 26% two years ahead of schedule. Beyond simply emission reductions, EVs help support a variety of benefits, including:
  - **Affordability**: When considering the full cost of ownership over a decade, from a car's purchase price to fuel and maintenance, a typical EV saves a family nearly $2,800 a year.
  - **Supporting B.C.'s burgeoning ZEV industry**: B.C.'s ZEV sector delivers jobs and significant economic opportunities across the province with some 400

companies that directly provide over 8,000 full-time jobs and contribute more than $900 million to the provincial gross domestic product.

- Air quality: A recent Health Canada study of air pollution-related health impacts found on-road transportation contributes 160 premature deaths annually in B.C. The monetized value attributed to the total health impacts from on-road transportation in B.C. amounts to an estimated $1.3 billion per year.

What are the challenges and/or areas for improvement?

- **E.V. adoption.** While B.C. has been a leader in E.V. deployment in North America, its trajectory—and the significant cost savings B.C drivers are reaping as a result—are at risk with the pause of sales incentives and the potential rollback of EV sales mandate.

  B.C. should reorient its EV policy package to focus on delivering British Columbians a selection of affordable (sub $40K) EVs by 2030. Clean Energy Canada polling shows that this is the price the vast majority of British Columbians wish to pay for a new car, electric or gas-powered. The key elements of this package should include:

  - Modernizing the ZEV mandate by slightly lowering the 2030 target to help automakers weather this temporary storm and lowering the 2035 requirement from 100% to 95% to ensure this is not a total ban on gas-powered vehicles. Any additional flexibility added in the regulation should be designed to achieve other EV-related goals, such as by offering carmakers extra credit for delivering more affordable EVs or investing inB.C.'s charging network.
  - Restarting Go Electric rebates of up to $2,500 for new EVs to reignite EV sales. Incentivize companies to bring affordable EVs to the Canadian market through existing low price caps (i.e. $50,000 for sedans and SUVs and $70,000 for vans and pickup trucks). Remove income caps altogether or apply one simple income cap of $130,000. The current income cap excludes many working class families from accessing the funding.
  - Developing an EV charging strategy that sets clear deployment targets for both public and private charging infrastructure that are aligned with the updated ZEV sales targets.
  - Working with the federal government to reconsider tariffs on Chinese-made EVs and allowing EU-approved vehicles into the Canadian market to fill affordable vehicle gaps, drive innovation and make our auto sector more competitive.

What gaps exist, and how could they best be filled?

- **Establish a net-zero 2050 GHG reduction target**
    - The B.C. government should update the *Climate Change Accountability Act* to include a net-zero 2050 GHG reduction target, modelled on the approach taken in the Canadian federal government's *Canadian Net-Zero Emissions Accountability Act*.
- **Implement a Clean Heat and Cooling Action Plan**
    - The government should build on existing policies and rebates to develop an action plan that proactively and cost-effectively supports the electrification of B.C. heating systems. This plan should be anchored in ensuring households can benefit from greater energy efficiency, affordability, security and comfort, similar to the proposed plan in Manitoba. This approach should consider regional differences and bring together key policies, which could include:
        - Highest Efficiency Equipment Standards that ensures all newly installed heating and water heating systems are efficient and electrified where possible, which will avoid costly retrofits in the future.
        - A Clean Heat Standard for utilities in lieu of the utility emissions cap, modelled on the standards implemented or under development in Colorado, Vermont and Massachusetts.
        - Introducing a maximum temperature requirement in the *Residential Tenancy Act*. Landlords and tenants should be encouraged to install a heat pump for cooling needs, thereby also providing efficient and low-emissions heating, such as through the suite rebate the government introduced in July.
        - Supporting BCUC to conduct a "future of gas proceeding" investigating the pathways to achieving net zero in heating and electricity systems and exploring the steps being taken to plan and manage the transition in other jurisdictions.

With respect to CleanBC's programs and other government spending that directly reduces or enables emission reductions:

What is working well?

- **Household clean technology incentives**.
    - B.C.'s household technology incentives have helped make B.C. a leader among Canadian provinces in household clean technology adoption such as EVs and heat

pumps. B.C.'s electric vehicle rebate program has helped put nearly 195,000 electric and fuel cell vehicles on B.C.'s roads. The number of households in B.C. with heat pumps increased by approximately 80% from 2017 to 2022, from an estimated 142,000 to 254,000. Incentives played a vital role in driving this adoption, and remain a vital government program to drive further adoption.

- In CEC's recent market research in Metro Vancouver, three-quarters of respondents, across housing types and income levels, found the upfront cost of EVs and heat pumps to be a barrier.
- Sustained incentives also provide certainty for car dealers and HVAC contractors, enabling a shift in supply and training for newer technologies.

Are there different ways to fund CleanBC programs beyond government grants, rebates, and incentives? Are there examples from other jurisdictions that could be applied in B.C.?

- There are a variety of different ways government can support CleanBC programs beyond direct spending, including:
  - Enable Property Assessed Clean Energy (PACE) programs through provincial legislation.[2]
  - Utility purchase and installation of household clean technologies that contribute to grid management.[3]
  - Lease arrangements for consumer technology adoption.[4]
  - Inclusion of household clean tech into residential mortgages[5]
  - Government bulk purchasing of clean technologies.[6]

With respect to the role of B.C.'s electricity and gas utilities in CleanBC and the B.C. Utilities Commission as their regulator:

What is working well?

- **Clean electricity generation buildout**
  - The 2024 and 2025 Calls for Power, as well as the release of the Clean Power Action Plan are no-regret actions that will help ensure the province can attract

[2] Alberta, Ontario and Nova Scotia have all passed PACE legislation that could be a model for B.C.
[3] Vermont's Green Mountain Power utility has installed over 2,000 batteries in customers homes, reducing bills by $3M during periods of peak demand.
[4] B.C. could look to France, which offers 'social leases', which are subsidized leases for lower income families to own an EV, or provinces like Ontario and Quebec, which offer rental and lease-to-own options for HVAC equipment including heat pumps.
[5] Energy Efficient Mortgages (EEMs) are financial products available in many jurisdictions, including the U.S. and Europe (driven by the Energy Efficient Mortgage Initiative, which launched in 2015).
[6] Governments can take different roles in this space, acting to directly purchase technologies, or by acting as a facilitator, providing programs that aggregate homeowner demand, driving down costs.

new clean investment and support the growing consumer demand for clean electricity.

- **Environmental assessment reforms**
  - Recent changes to the environmental assessment process for renewable energy projects, including the shift to the B.C. Energy Regulator will help streamline the approval of critical projects.

What are the challenges and/or areas for improvement?

- **Lack of coordination between climate planning and energy planning**
  - While B.C. has long had a continent-leading climate plan, its energy planning has been falling behind. Over the last few years this has begun to change, with major capital investments, new calls for power, and the articulation of an energy vision. However, meeting the growing demand for clean electricity will require a greater integration and ongoing coordination between energy and climate objectives.
- **Modernization of B.C. electricity system**
  - Like other jurisdictions around the world, B.C. is grappling with what is required to rapidly grow its electricity system — intending to double it by 2050 — while simultaneously replacing fossil fuel use with electricity. These twin challenges must be tackled in parallel and will require new tools to plan, regulate, and operate our energy systems, along with new governance systems. B.C. has been less public than many jurisdictions about the reforms under consideration, and the public perception is an energy system that risks falling behind.

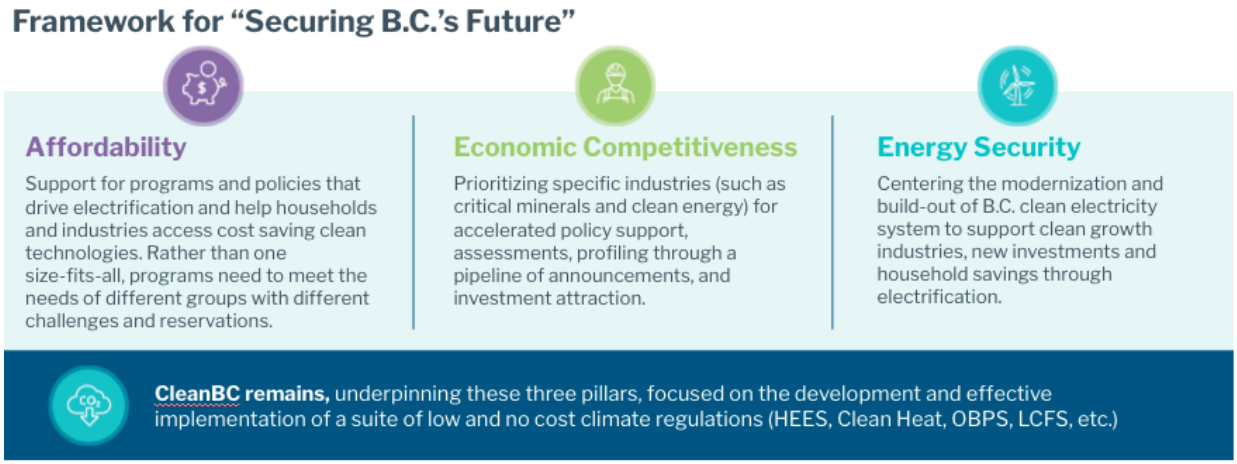
What gaps exist, and how could they best be filled?

- **Commission a Pathways Assessment.** B.C. should commission a pathways assessment to identify the most cost-effective pathways for achieving net-zero objectives, informing energy planning, bringing stakeholders together around a common set of assumptions for the build-out of our clean energy system and helping to avoid stranded assets that risk driving up rates. B.C. should look to Ontario, Western Australia, and other jurisdictions on how to design an effective pathways assessment.
- **Conduct a study on the potential of DERs in B.C. and develop a public roadmap to maximize their deployment.** B.C. is falling behind other jurisdictions that are moving quickly to expand the role of demand-side resources to meet growing clean electricity demand. Following the lead of jurisdictions like Ontario, B.C. should commission a DER potential study and create a roadmap that ensures B.C.'s electricity system is modernizing to take advantage of these cost-effective resources.
- **Modernize energy planning in B.C.**

- **Create a new BCUC process to enable integrated utility planning.** In order to coordinate investments across energy systems in line with our climate and energy objectives, B.C. should follow the lead of other jurisdictions across North America that are piloting different approaches to integrating electricity and gas planning.
- **Establish a BC Hydro-led local energy planning process.** Different regions across B.C. will have vastly different challenges and opportunities when it comes to the decarbonization of existing energy systems and the required growth to support the electrification of households and industry. Bottom-up local planning at the distributions level is a growing practice in energy planning in the EU.

How could CleanBC's policies and programs be better aligned or integrated with other provincial priorities? These include (but are not limited to) improving affordability, enhancing economic competitiveness, protecting health, and ensuring energy security.

- Clean Energy Canada proposes a new framework for climate action, where climate action is embedded into three specific objectives to help rebuild support for more ambitious climate action in the long run. This approach allows for a more strategic use of public dollars that works to achieve multiple pressing objectives, while leveraging a suite of impactful and cost-effective climate regulations that operate behind the scenes.



- Implementation of this framework will require changing the way we measure the success of climate action in the medium term.

Are there other innovative and effective approaches—including those that account for or align/integrate with other priorities—from other jurisdictions that B.C. should consider adopting?

- See comments in response to "integration" and "potential indicators of success".

With regards to B.C.'s approach to establishing targets (2025, 2030, 2040 and 2050; and sectoral targets), public reporting and accountability: What is working well? What are the challenges and/or areas for improvement? What gaps exist, and how could they best be filled?

- See comments in response to "integration" and "potential indicators of success".

Are there other potential indicators of progress (e.g. investment, behavioural change, energy production and use, deployment of key technologies etc.) that should be considered for tracking and reporting?

- Establishing new indicators for successful climate action should be a priority in a renewed CleanBC. These indicators should be publicized and centered as the primary way the province is measuring the success of its climate action over the next several years. Accountability will be vital, and the indicators should be used to set public targets that catalyze action and provide a clear market signal, and/or integrated into the relevant service plans of ministries and crown corporations.
- There are at least three categories of potential indicators that should be considered:

    1. **Clean technology deployment targets**

        - The deployment of clean energy technologies representing the electrification of households and industry — are a tangible way to marry affordability, energy security and emissions reductions.[7]

    2. **Clean energy deployment and electricity system modernization**

        - The deployment of clean electricity infrastructure and the modernization of our electricity system has significant implications on all aspects of B.C. — from the affordability of power, to the ability to attract investment to enhancing energy security. This also addresses one of CleanBC's major gaps — the disconnect between electricity system planning and the achievement of B.C.'s climate objectives.[8]

[7] Example indicators include: EV adoption (LDV and MHDV), public and private EV chargers, household and industrial heat pumps, smart thermostats and building retrofits.
[8] Example indicators include: Renewable energy targets, energy efficiency targets, relative growth of specific technologies (i.e. tripling the share of B.C.'s electricity that comes from wind), domestic clean fuel production, kilometers of transmission built, share of capacity met by virtual power plants and other demand-side solutions, distribution system upgrades and targets.

3. Clean economy indicators

- Integrating climate action into economic prosperity requires the use of indicators that can embed clean objectives into the industrial policy of the province. This can be best achieved through indicators related to both the electrification or decarbonization of industry, as well as concrete metrics related to priority growth sectors.[9]

[9] Example indicators include: export of clean goods, rates of industrial electrification across different sectors, investments leveraging B.C.'s clean electricity grid, specific sector targets (i.e. "X" number of new critical mineral mines in operation by 2030, etc.), production of specific goods or services (i.e. "X" tonnes of copper produced in B.C.), employment in "clean"