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Positioning British Columbia's Energy System for Decarbonization and Increased Competitiveness

Authors

Mark Zacharias and Evan Pivnick

Clean Energy Canada Morris J. Wosk Centre for Dialogue Simon Fraser University

Foreword

The Pacific Institute for Climate Solutions (PICS) was created in 2008 with an endowment from the Government of British Columbia to support evidence-based climate policy. This investment in our university-based network was groundbreaking and remains a core strength of the organization.

In fulfilment of PICS' mandate, this Insights Series elevates leading evidence at a pivotal moment for climate policy in B.C. Drawing on academic expertise from across the province, the series is designed to inform the 2025 independent review of CleanBC, British Columbia's plan to reduce greenhouse gas emissions and combat climate change.

When CleanBC was launched in 2018, climate action was a public and political priority. While concern about climate change remains widespread, it has increasingly been overshadowed by more immediate pressures, such as rising costs of living, strained public services, and growing geopolitical instability. Intensifying climate impacts exacerbate each of these challenges, which increases the complexity and opportunity for bold climate solutions. Now is not a time to retreat from ambition. Rather, it is a time for integrated solutions and public policy that unlock energy transformation, reduce climate risk, and increase prosperity at local, regional, and global scales.

The Insights Series highlights the deep connections between climate action and other top issues facing British Columbians: housing, affordability, economic competitiveness, Indigenous reconciliation, regional economic development, and fiscal efficiency.

B.C.'s climate leadership can be renewed—not by repeating the strategies of the past, but by evolving CleanBC to meet the realities of today.

Territory acknowledgement: At the University of Victoria, where the Pacific Institute for Climate Solutions (PICS) is hosted, we acknowledge and respect the Ləkwəŋən (Songhees and Esquimalt) Peoples on whose territory the university stands, and the Ləkwəŋən and WSÁNEĆ Peoples whose historical relationships with the land continue to this day

PICS and its university network have campuses across the province known as British Columbia. We respect and acknowledge the many unceded traditional territories and Nations where PICS universities stand including: xwməθkwəýəm (Musqueam) • Skwxwú7mesh Úxwumixw (Squamish) • səĺilẃətaʔ⁴ (Tsleil-Waututh) • qíćəý (Katzie) • kwikwəλəm (Kwikwetlem) • Qayqayt • Kwantlen • Semiahmoo • Tsawwassen •

- Kwantlen Semiahmoo Tsawwassen Stó:lō Syilx (Okanagan) Dakelh (Carrier) territory: Lheidli T'enneh, Lhtako, Nazko, Lhoosk'uz ?Esdilagh, a Tsilhqot'in Nation
- Dane-zaa territory: Doig River, Blueberry River, and Halfway River • Tsimshian territory: Kitsumkalum, Kitselas, Lax Kw'alaams, and Metlakatla • and Gitwinksihlkw, a Nisga'a Village.

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Vancouver at night. *iStock*

Executive summary

CleanBC's emissions-centric focus has been disconnected from the build out and modernization of British Columbia's electricity system. Additionally, B.C.'s various energy systems are currently planned and regulated separately from one another. To maintain an affordable, reliable, and growth-driving energy system, more must be done to align B.C.'s net-zero goals, electricity system strategy, and energy planning. This will require new tools to plan, regulate, and operate the province's energy systems, along with new governance systems.

66 More must be done to align B.C.'s net-zero goals, electricity system strategy, and energy planning."

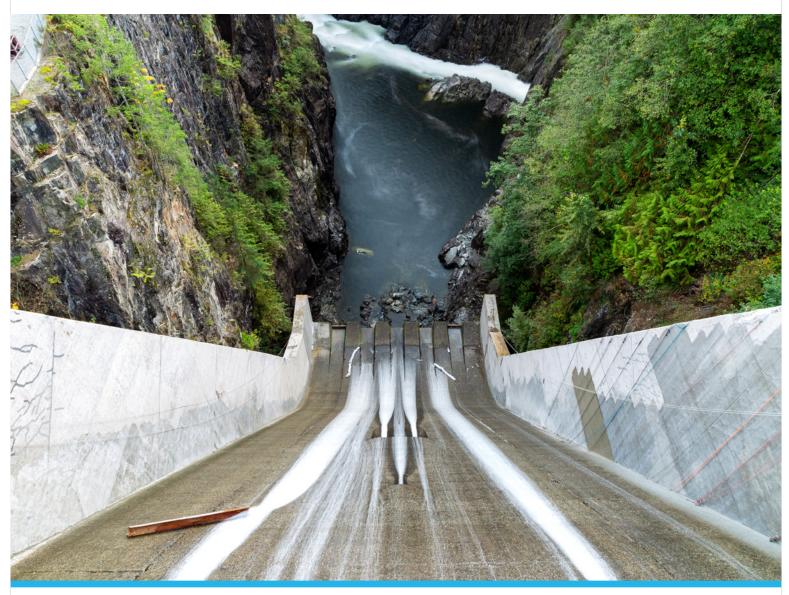
Like other jurisdictions around the world, British Columbia is grappling with what is required to simultaneously grow and decarbonize its economy. While B.C. benefits from a clean electricity grid, approximately 63 per cent of the total energy used in 2021 came from refined petroleum products or natural gas. To achieve the provincial target of net-zero emissions by 2050, these fossil fuels must be replaced with non-emitting energy sources. While plans to double the electricity grid's capacity by 2050 have begun, the ability to provide certainty about the reliable supply of clean electricity will determine whether B.C. can attract investments in new sectors as well as support existing sectors to remain competitive in a world increasingly prioritizing low-carbon goods and services.

This paper outlines key actions for the B.C. Government to integrate into a renewed CleanBC plan to create a climate-aligned energy system. These aim to maintain B.C.'s path to decarbonization and net zero while ensuring affordability and

reliability, improving economic competitiveness, contributing to reconciliation, and building a resilient electricity system prepared for a changing climate. These actions fall under four categories and include:

- 1. Integrate and modernize the planning and regulation of an energy system.
 - B.C. must commission a pathways assessment to inform the development of an integrated energy plan. Additionally, it should create a new British Columbia Utilities Commission (BCUC) process to enable integrated utility planning and support the implementation of regulatory reforms to help modernize the energy system. Furthermore, it could establish a BC Hydro-led local energy planning process, empower BCUC to authorize "innovation sandboxes" for technologies and regulation, expand BCUC's capacity to conduct independent analysis of utility proposals, and update (electric vehicle EV) charging infrastructure assessment and targets.
- 2. Diversify B.C.'s supply of clean, reliable, and affordable electricity. B.C. must develop interprovincial and regional transmission plans. Additionally, it should establish long-term renewable energy targets and procurement schedules, and BC Hydro should regularly publish transmission and distribution capacity maps. Furthermore, B.C. should develop a long-term energy storage strategy and explore the creation of "renewable energy zones" to support the rapid and cost-effective deployment of renewables.

- 3. Achieve sustainable economic growth that supports
 First Nations rights, ownership, and equity participation.
 B.C. must build on existing efforts and enhance the
 comprehensive and permanent funding available to
 support First Nations capacity to evaluate, partner on,
 develop, and own clean energy projects. Additionally, B.C.
 should develop a clean energy labour market outlook
 aligned with its integrated energy plan. Furthermore, B.C.
 should establish a framework to determine the "highest
 and best use" of electricity resources, anchored by its
 net-zero objectives and develop a policy to support First
 Nations retail access and wheeling.
- 4. Improve affordability.
 - British Columbia must implement a clean heat and cooling action plan, develop an affordable zero emission vehicle action plan, and adopt household clean technology deployment targets. This should include maintaining incentives and streamlining the consumer experience in technology adoption. Additionally, the province should conduct a study on the potential of Distributed Energy Resources (DERs) in British Columbia and develop a public roadmap to maximize their deployment.



Looking down Cleveland Dam and the Capilano River in North Vancouver. iStock

British Columbia's electricity system: an overview

Cheap clean electricity has been the backbone of B.C.'s economy for many decades. While Canada has the lowest electricity rates among G7 countries, B.C. does even better, with the third-lowest electricity bills in North America (after Quebec and Manitoba, two other hydro-rich provinces).¹

B.C.'s grid is also among Canada's most reliable systems when compared to those in other provinces, even accounting for increased wildfires and service disruptions in recent years.² The province's clean electricity is an economic advantage in a number of ways. The first is the ability for B.C. to use its large hydro reservoirs to provide power when it's needed and when prices outside the province are high. This flexibility has allowed B.C. to benefit from a net gain from electricity trade of more

than \$1.5 billion since 2019, reducing residential electricity bills by 10 per cent from what they would otherwise be this year. Electricity exports exceed imports on average across these years, and trading keeps rates lower for ratepayers.³

Affordable electricity also keeps costs low for B.C. households and businesses. An average B.C. household (assuming 1,000 kWh used) spends \$114 per month on electricity.⁴ In contrast, the same family in Alberta would spend \$258 per month for the same amount of electricity.⁵

And lastly, low-cost, reliable electricity is B.C.'s competitive advantage. Foreign investors are increasingly looking to locate in jurisdictions with an electricity system that is reliable, affordable, predictable, and clean. British Columbia is particularly well-positioned to participate in the net-zero transition. With an electricity grid that is 97 per cent non-emitting, B.C.'s grid is

among the world's cleanest.⁶ The province also has 16 of the 34 critical minerals on Canada's critical minerals list, and 18 proposed critical mineral mines with an investment estimated at \$37 billion if all mines were built.^{2,8} And five of the Global Cleantech 100 companies, an annual list of the world's most promising cleantech companies, are B.C.-based, including Ionomr Innovations, Mangrove Lithium, Pani, pH7 Technologies, and Svante.²

66 About 63% of the energy used in B.C. in 2021 must be replaced (or offset) by non-emitting energy to reach net zero in 2050."

The ongoing electrification of the global economy, however, has necessitated that governments and electrical utilities reassess their energy systems, and B.C. has had to do likewise. BC Hydro's 2021 20-year Integrated Resource Plan was amended in 2023, in part to account for new load growth as a result of climate policies and the consumer and business shift from fossil-fuel to electric transportation and building cooling/ heat. The provincial government and electrical utilities have also recently made major capital investments, announced new calls for power, and articulated an energy vision.

As the province grows its economy in the coming decades, affordable clean electricity will continue to be a key competitive advantage if the province makes the right moves now.

British Columbia's electricity system's role in broader energy system decarbonization

CleanBC was launched in 2018 as part of a wave of climate plans following the 2015 Paris Agreement. This era was premised on a high level of international alignment and cooperation on climate ambition, a central role for top-down government policy, and an emissions-centric focus. The CleanBC plan, however, did not adequately integrate an electricity system strategy, which has led to a disconnect between the province's net-zero goals and its energy planning.

For the province to maintain an energy system that remains affordable, reliable, and drives economic growth, more must be done to plan for the coming decades to ensure that future generations of British Columbians will continue to benefit. For context, about 63 per cent of the energy used in B.C. in 2021 was supplied by either refined petroleum products or natural gas that must be replaced (or offset) by non-emitting energy for B.C. to reach net zero in 2050 (Table 1).

This paper outlines the actions the B.C. Government needs to take and integrate into a revised CleanBC plan for the province to maintain a path to decarbonization and net-zero that improves economic competitiveness, protects the ratepayer, contributes to reconciliation, and builds an electricity system ready for a changing climate.

TABLE 1: BRITISH COLUMBIA TOTAL FINAL ENERGY USE		
Energy type	Overall use (PJ)	Breakdown by sector
Refined petroleum	394 PJ (33%)	74% transportation 24% industrial 2% buildings
Natural gas	366 PJ (30%)	60% industrial 40% buildings
Biofuels and decarbonized gas	229 PJ (19%)	81% industrial 13% transportation 6% buildings
Electricity	208 PJ (17%)	57% buildings 43% industrial
Other	8 PJ (1%)	100% industrial

Source: Canada Energy Regulator, Canada's Energy Future Data Appendices [Internet]. Canada Energy Regulator; 2017 Oct 25. Available here.

Actions for British Columbia to maintain a path to decarbonization/net zero

The fortunate situation British Columbians find themselves in now, with some of the world's cheapest electricity, was a result of decades of thoughtful planning and the build-out of our electricity system.

Now is the time to plan for the coming decades to ensure that future generations of British Columbians will continue to benefit. To that end, there are a number of actions the provincial government should take to lock in our clean power advantage while charting an affordable and reliable path to a net-zero 2050.

Modernize the planning and regulation of the energy 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. If implemented decisively and proactively, these reforms offer opportunities to strengthen B.C.'s competitiveness for new economic investments, enhance energy security for households, and secure new opportunities to reduce household energy bills.

66 B.C.'s various energy systems are currently planned and regulated separately from one another."

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.

A key issue is B.C.'s various energy systems are currently planned and regulated separately from one another, with electricity and natural gas falling under the British Columbia



A trio of wind turbines in northern B.C. iStock

Utilities Commission (BCUC) and fuels like hydrogen falling under the BC Energy Regulator. As B.C. seeks to rapidly scale up clean energy production, as well as electrify and decarbonize sectors across the economy, it will be necessary to fully integrate the planning and build-out of these different systems. Failing to do so will see growing costs placed on ratepayers with a growing risk of locking in emitting infrastructure or stranding fossil fuel assets.

In order to modernize the planning and regulation of the energy system, B.C. must:

- Conduct a pathways assessment. Following the lead of other jurisdictions who are trying to secure a clean electricity advantage, B.C. needs to commission a pathways assessment to help inform the development of an energy plan.¹² This type of assessment helps identify the most realistic 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 conduct an effective pathways assessment.¹³
- Create a new BCUC process to enable integrated utility planning. Leveraging other actions, the pathways assessment and recent efforts that the B.C. Government and BCUC have made on requiring utilities to produce

long-term resource plans, can establish a process that coordinates the investments across energy systems in line with our climate and energy objectives. ¹⁴ Jurisdictions across North America are piloting different approaches, and B.C. will need to conduct its own consultations to establish a made-in-B.C. approach. ¹⁵

Support the implementation of key regulatory reforms. In the last several years, both BCUC and BC Hydro have initiated or brought forward a variety of key regulatory reforms that help modernize our energy system. It is critical the government is an active partner in supporting the development and implementation of key initiatives.

In addition, B.C. should consider the following actions:

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—a growing practice in energy planning in the EU—helps ensure that energy planning is grounded in the local context, building community support and buy-in and matching investments to the unique needs of the region.¹⁶

- Empower BCUC to authorize "innovation sandboxes" for technologies and regulation. Innovation sandboxes are an increasingly important tool to support the integration of new clean energy technologies and to pilot new approaches to regulation. Allowing for experimentation outside of traditional rate-basing and benefit-cost analysis frameworks, this approach is seeing growing use in jurisdictions like Ontario, but has not been widely embraced in B.C.¹⁷
- Expand BCUC's capacity to conduct independent analysis of utility proposals. One key element in supporting integrated planning will be to adequately resource BCUC to conduct its own analysis of the proposal put forward by both electricity and natural gas utilities. Currently, the regulator is heavily reliant on the analysis advanced by utilities, with limited ability to conduct its own assessments of the underlying requirements.
- ** Update EV charging infrastructure assessment and targets. As the uptake of electric vehicles continues to grow, and commercial vehicles increasingly look to electrification, it will be essential that B.C.'s charging infrastructure is proactively built out. This includes incorporating updated forecasts about the scale of infrastructure required and expanded programs to support both public and private deployment.



Building out B.C.'s charging infrastructure is an essential step. iStock

Diversify our supply of reliable and affordable clean electricity

The ability to attract adequate interest at competitive pricing, ensure First Nations' participation, streamline permitting processes, and build grid capacity are at the core of a successful and timely build-out of renewables capacity. In addition, complementing flexibility with cost-effective grid energy storage will be critical.

British Columbia has considerable renewable energy potential. Recent calls for power have received proposals for more than three times the amount of energy required. However, bringing these resources online in a timely and cost-effective manner is essential. Existing permitting processes are time consuming and inefficient, often lacking coordination between the different permitting departments.

In addition, doubling B.C.'s electricity grid over the next 25 years will require a proactive approach to resource planning, with both BC Hydro and the B.C. Government providing certainty regarding the frequency, size, and type of energy procurements they intend to conduct. It will also be essential that the government is proactive in engaging stakeholders in communities that may be impacted by new clean energy projects.

66 As a greater share of electricity comes from renewables, customers will need to have confidence in the reliability of the electricity system."

As the grid grows, and a greater share of our electricity comes from renewables, the B.C. Government will need to ensure both industrial and residential customers have confidence in the reliability of the electricity system. Achieving higher shares of variable renewables offers a considerable opportunity for reduced energy costs but will require proactive strategies for managing the different peaks and seasonal variability from these resources. Proactive communication that focuses on the actions being taken to ensure reliability and the development of reliability focused policies will be vital.

In order to diversify our supply of reliable and affordable clean electricity, B.C. must in the short-term:

- Develop interprovincial and regional transmission plans. Expanded transmission with both Alberta and the U.S. is both an economic opportunity and an opportunity to maintain and enhance the reliability of B.C.'s electricity system. Dedicated resources should be allocated to working with the Alberta government on conducting a Benefit Accrual Study as Electricity Canada has recommended,²⁰ as well as to support conversations with other Western Electricity Coordination Council (WECC) jurisdictions about multi-jurisdiction resource planning.
- Establish long-term renewable energy targets and procurement schedules. While the government and BC Hydro have announced two new calls for power, the government (with BC Hydro) should outline the expected schedule for future energy procurements, providing

both the timelines and scale of energy demand expected. This could take the form of dedicated targets informed by BC Hydro's planning and should be updated on a regular basis.

Publish regular transmission and distribution capacity maps. As B.C. develops its schedule for future calls for power, it will be essential that BC Hydro proactively publish and update transmission capacity maps that help project proponents understand which regions have the necessary transmission capacity to support new projects, and which will require infrastructure investments to unlock them. Similarly, B.C. should publish distribution capacity maps on a distribution level, like those published in Ontario.²¹

In addition, B.C. should consider the following actions in the medium-term:

- Develop a long-term energy storage strategy. To help provide market and customer certainty, as well as combat misinformation about B.C.'s electricity system, the government should develop a dedicated energy storage strategy. This should encompass the integration of grid scale battery storage, consideration of vehicle-to-grid (V2G) opportunities, and the optimal role of B.C.'s legacy hydro resources in a system with a growing share of variable renewables.
- Develop renewable energy zones. Leveraging experiences in the EU and in Texas, B.C. should explore the creation of "renewable energy zones" (REZ) to support the rapid deployment of variable renewables.²²A REZ is a geographic area that features high-quality renewable resources and can be proactively developed to build community support, ensure infrastructure is in place, and bring interested developers together. It can help lower costs, shorten timelines, and provide greater certainty for project proponents. As an example, the B.C. Environmental Assessment Act enables class assessments to inform regulatory processes and their requirements by project type and/or geographic region.



A dedicated energy storage strategy will help provide market and customer certainty. $\underline{\textbf{Source}}$

Power sustainable economic growth that enables First Nations rights, ownership, and equity participation

From mining to AI, B.C. is experiencing rapidly growing demand for clean electricity from industrial and economic projects in every region of the province. The ability to provide certainty about the reliable supply of clean electricity will determine whether B.C. can attract investments in new sectors, like the battery industry, as well as support existing sectors to remain competitive in a world increasingly prioritizing low-carbon goods and services.

The B.C. Government has taken a number of important steps, including anchoring clean electricity as a key element of its economic strategy and starting to plan for the doubling of the electricity grid by 2050. Modern industrial policy, however, increasingly requires governments to make strategic decisions about which economic sectors are the priority. With finite resources, capacity, and energy, the B.C. Government must be willing to prioritize sectors that offer the greatest growth opportunities for the province that will remain relevant in a world increasingly electrifying. Helping support these priority sectors to adopt clean technologies, connect to the electricity system, and ensure a reliable and clean source of energy will be vital in securing new investments.

In B.C., the increasing electrification of our economy will rely on lands and resources where Indigenous nations are

title- and rights-holders. From partnerships to Indigenousowned and operated initiatives, First Nations expect to be full economic partners in these projects. In order to achieve the required clean energy build-out while delivering on the commitments outlined in the Declaration on the Rights of Indigenous Peoples Act (DRIPA), First Nations must have the resources and ability to explore, develop, own, and operate clean energy projects.

Certainty about the reliable supply of clean electricity will determine whether B.C. sectors will remain competitive."

Underpinning the doubling of B.C.'s electricity grid and the installation of clean technologies in millions of homes across the province is the workforce that makes it happen. Without decisive action, labour and skill shortages will become a limiting factor that undermines B.C.'s ability to build the resources it needs.

In order to power sustainable economic growth, B.C. must:

- **Pirst Nations capacity. From making informed decisions about proposed projects to directly participating in project design to negotiating deals, First Nations require access to resources (both financial and expertise) that can support their capacity to evaluate, partner on, develop, and own clean energy projects. This is a critical gap highlighted by the First Nations Major Project Coalition (FNMPC) in the National Electrification Strategy, which could include both a dedicated funding stream and support for an Indigenous-led institution that supports capacity development on the ground. 23
- Develop a clean energy labour market outlook aligned with B.C.'s energy plan. Ensuring B.C. has the skilled workers available to install, build, and operate clean energy projects of all sizes will require deliberate planning and an understanding of different needs. With the goal of doubling the grid over the next 25 years and supporting the adoption of clean technologies across the province, a new labour market outlook informed by B.C.'s energy plan is essential.

In addition, B.C. should consider the following actions:

- Establish a framework to determine the "highest and best use" of electricity resources. As B.C. takes steps to bring online new resources, it will be necessary to develop a framework that helps guide how B.C. allocates its energy resources and prioritizes the capital investments to expand the grid. In addition to choices between sectors or projects, the province will also need to balance the pursuit of economic projects with the need to achieve decarbonization objectives and the grid investments required to ensure households can secure the benefits from clean energy technologies.
- » Develop a policy to support First Nations retail access/ wheeling. As more and more First Nations develop their own clean energy projects to meet the growing demand for electricity across the province, it will be critical that the B.C. Government establish a policy that enables First Nations to leverage existing BC Hydro infrastructure to negotiate directly with projects.²⁴

Improving affordability through household electrification

Electrification is one of the biggest opportunities to drive down costs for homeowners across the province. From how we heat and cool our homes to how we power our vehicles, it is essential that British Columbians are provided with the choice and opportunity to reduce their costs through electrification.

Energy efficiency is one of the best ways that British Columbians can save money. Adopting an efficiency-first approach will help reduce the need to expand our electricity grid, reducing pressure on electricity rates. According to BC Hydro, the updated energy efficiency plan will help customers save \$80 million per year by 2026.²⁵

66 B.C. lacks an overarching framework for driving deployment of distributed energy resources or managing their integration as a resource to defer or avoid new grid assets."



For many British Columbians, the electrification of heating and cooling presents a major opportunity to reduce their energy bills. *iStock*

Recognizing this potential, the B.C. Government made "efficiency-first" one of the guiding principles moving forward. Actioning this principle must be a priority for both securing savings and reducing GHG emissions.

For many British Columbians, the electrification of heating and cooling presents a major opportunity to reduce their energy bills. However, as more and more families electrify by taking advantage of technologies like heat pumps, there will be increasing pressure on natural gas utilities to maintain the existing system even as the consumer base shrinks, with the potential for both rate increases and a growing threat to energy security for many households. And this won't be felt equally: low-income families and underserved communities may be left holding the tab on an increasingly expensive natural gas system. Without clear direction from the provincial government, natural gas utilities have been continuing to make status quo investments, seeking to expand the natural gas grid and pushing back on municipal government efforts to accelerate the electrification of heating and cooling.

The B.C. Government needs to join the growing number of jurisdictions taking decisive action to chart a path for the electrification of building heat, seizing the opportunity to protect and enhance the affordability and security of the province's heating systems.²⁶

One of the most profound transformations being driven by electrification is the rise of distributed energy resources (DERs)



Incentive programs play a critical role in supporting the adoption of clean technologies, helping address their often-higher capital costs. *iStock*

and the growing importance of demand-side solutions. While B.C. is consistently a provincial leader in energy-efficiency programs, its demand-side management and capacity savings programs consistently underperform compared to other provinces. Furthermore, as other provinces accelerate the frameworks needed to integrate DERs, B.C. is being left behind without any overarching framework driving their deployment or managing their integration as a resource to defer or avoid new grid assets.

In order to protect choice and affordability through household electrification, B.C. must:

- 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.^{27, 28} This approach should consider regional differences and bring together key policies, which could include:
 - The Highest Efficiency Equipment Standards (HEES)
 can be an effective regulatory instrument to ensure all
 newly installed heating and water heating systems are
 efficient and electrified where possible, which will avoid
 costly retrofits in the future.
 - Develop 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. A clean heat standard typically establishes clear targets for emissions intensity or technology deployment. These approaches allow for incremental steps with a clear, predictable trajectory, but must be designed to avoid the lock-in of unnecessary gas assets.
- The Province took an important step for health and safety by introducing a maximum temperature requirement for new dwellings in the B.C. Building Code. This effort should be extended by 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 expanded suite rebate the government introduced in July.²⁹
- 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.
- **Adopt household clean technology deployment targets and build a coalition to help drive adoption.

 Establishing clear targets for clean technologies (e.g., heat pumps, EVs, chargers) can help catalyze the actions required to drive their deployment. The California Heat Pump Partnership brings together government and private sector actors to tackle regulatory, financing, labour, supply chain and other related challenges. This approach would complement the government's intention to use their buying power to bring down costs, ensuring partners are in place to help achieve deployment and identify the policies and regulations required.
- » Maintain incentives and streamline the consumer experience in technology adoption. Incentive programs play a critical role in supporting the adoption of clean technologies, helping address their often-higher capital costs. In addition to continued support for incentive programs, the government should continue to refine program delivery to ensure they remain accessible to a greater number of British Columbians regardless of income or housing situation, ensure they are addressing

the barriers faced by those most likely to adopt clean technologies, and ensure a streamlined consumer experience in accessing incentives. (See companion Insights Series paper, Pathways to accelerating household clean technology adoption across British Columbia)

- Conduct a study on the potential of DERs in B.C. and develop a public roadmap to maximize their deployment. Following the lead of jurisdictions like Ontario, a DER potential study and roadmap will help ensure B.C. is leveraging the clean energy technologies being deployed in homes and businesses across the province to maximize household benefits and help bring down electricity system costs by offsetting larger capital investments.
- Develop an affordable vehicle action plan. B.C. should reorient its EV policy package around the headline objective of delivering British Columbians a selection of affordable EVs under the price point of \$40K by 2030. The package should include modernizing the ZEV mandate with small adjustments to targets and compliance pathways, restarting Go Electric rebates, developing and EV charging strategy, and working with the federal government to reconsider Canada's EV trade approach and open up Canada's car market. (See companion Insights Series paper, Pathways to accelerating household clean technology adoption across British Columbia, for more detail)

Conclusion

Cheap clean electricity has been the backbone of B.C.'s economy for many decades. B.C.'s grid is also among Canada's most reliable systems when compared against those in other provinces, even accounting for increased wildfires and service disruptions in recent years. 32

As the province grows its economy in the coming decades, affordable clean electricity can continue to be a key competitive advantage if the Province makes the right moves now.

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PO Box 1700 STN CSC Victoria, B.C. V8W 2Y2 Canada **T** 250-853-3595 **F** 250-853-3597

pics@uvic.ca climatesolutions.ca