

MINISTRY OF ENERGY, MINES AND LOW CARBON INNOVATION



ESTIMATES 2024/25

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2024/25 Estimates Note Advice to the Minister

Ministry: Ministry of Energy, Mines and Low Carbon Innovation
Minister Responsible: Josie Osborne

Title: Cap on Natural Gas Utility Emissions

Drafted/Revised: February 13, 2024

Issue: Progress to date on implementing a cap on natural gas utility emissions.

Response:

- The CleanBC Roadmap to 2030 committed to reducing emissions in buildings and industry by capping emissions from natural gas utilities at 6 megatonnes by 2030 (a 47% reduction from 2018). The proposed cap is aligned with CleanBC modelling of sectoral GHG targets.
- Reducing natural gas related emissions in the buildings and industry sector is a complex challenge and will require collaboration across many sectors, including energy utilities, governments, and regulatory agencies like the BC Utilities Commission (BCUC).
- Government is committed to working with the BCUC, public utilities and key stakeholders to map out a pathway that achieves our energy transition and emission reduction goals at the least cost to ratepayers.
- Advice from the BC Hydro Task Force, created in March 2023 to provide strategic advice to government on reliable, affordable, and emissions-free energy, is expected to inform the approach.

Background/Status:

- Under the CleanBC Roadmap to 2030, Government committed to capping emissions from natural gas utility customers in buildings and industry (excluding Liquified Natural gas and upstream oil and gas) at 6 megatonnes by 2030 (a 47 per cent reduction from the 2018 baseline).¹ The proposed emissions cap is aligned with climate modelling for BC's sectoral GHG targets.
- The Premier's mandate letter directed that the Minister of Energy, Mines and Low Carbon Innovation to "work with the British Columbia Utilities Commission (BCUC) to identify an appropriate role for the BCUC in supporting British Columbia's clean energy transition, in alignment with our province's climate goals to achieve net zero by 2050 and affordability objectives."

¹ The natural gas grid currently provides 50 per cent of the energy used by buildings and 31 per cent used by industry (excluding the upstream oil and gas sector and LNG production).

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Ministry: Ministry of Energy, Mines and Low Carbon Innovation
Minister Responsible: Josie Osborne

- Work is currently ongoing with the BC Utilities Commission, strategic partners including provincial government ministries, energy utilities like FortisBC and BC Hydro, and the BC Hydro Task Force to develop an effective approach to decarbonize the gas system in an orderly fashion that is affordable for British Columbians.
- The Ministry of Energy, Mines and Low Carbon Innovation is committed to mapping out an effective pathway to reduce GHG emissions from the natural gas system while ensuring reliable and affordable energy for British Columbians.

Attachments: N/A

Cross Reference: #2 RNG, GGRR, National RNG Registry
#3 Climate Aligned Energy Framework
#4 Evolving Role of the BCUC
#5 Energy Affordability

Contact:

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2023/24 Estimates Note Advice to the Minister

Ministry: Ministry of Energy, Mines and Low Carbon Innovation
Minister Responsible: Josie Osborne

Title: Using RNG to decarbonize BC's Natural Gas Grid

Drafted/Revised: February 13, 2024

Issue: Renewable Natural Gas the Greenhouse Reduction Regulation, and National RNG Registry

Response:

- To dramatically lower carbon emissions and drive the transition from fossil natural gas, gas utilities have been acquiring renewable natural gas (RNG) for use by their customers.
- Gas utilities are expecting to displace conventional natural gas with lower carbon alternatives, such as RNG produced from organic sources, and hydrogen.
- Increasing the supply of RNG and hydrogen could potentially create new business and job opportunities in other sectors of the provincial economy, including the agriculture and forest sectors.
- As a result, EMLI is contemplating regulatory changes to the Greenhouse Gas Reduction (Clean Energy) Regulation to increase the supply of renewable gases for use by BC consumers.
- The amendments to the GGRR are intended to transform the market to renewable gas and hydrogen alternatives and encourage alternative and flexible solutions that will complement existing opportunities in different sectors of the economy, including the forest sector.
- Business Information

Background/Status:

- Currently, the natural gas grid plays an important role in providing capacity to meet BC's demand during cold weather peaks, supplying around two-thirds of the energy needed for buildings, industry, and transportation during those periods. The other one-third is provided through BC Hydro's system, operating at its maximum existing capacity (about 11,000 megawatts [MW]).
- While enhanced electrification will be critical to meeting BC's climate targets, low carbon gases will be needed to ensure peak demand can be met in a cost-effective manner.

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Ministry: Ministry of Energy, Mines and Low Carbon Innovation
Minister Responsible: Josie Osborne

- Amendments to the GGRR made in early 2017 enabled the use of RNG in transportation and established a Renewable Portfolio Allowance (RPA) to allow natural gas distribution utilities to increase the supply of RNG. An RPA allows a utility to provide a voluntary RNG program with regulated rates while the cost is borne across all utility customers, not just those receiving RNG service. By establishing an RPA, utilities and producers have market certainty, including an incentive to adopt new technology and lower the cost of production.
- Further amendments to the GGRR made in 2021 enabled utilities to further increase their acquisition of renewable gas, and created new prescribed undertakings for hydrogen, synthesis gas and lignin.
- Decarbonizing industrial processing for natural-gas intensive industries through fuel-switching to lower carbon fuels is one of the biggest opportunities for GHG reductions under the CleanBC Roadmap to 2030. These amendments to the GGRR will allow for the utility to provide capital incentives to help lower the financing costs of its customers who want to convert their industrial systems in order to produce and consume synthesis gas or lignin.
- When gas utilities acquire renewable natural gas, hydrogen, synthesis gas and lignin, they will usually acquire all the “environmental attributes” along with the gas molecules as a term in their supply contract. Commonly known attributes are associated with fair trade coffee and Forest Stewardship Council certified lumber.
- The Ministry is participating in a national working group, sponsored by the Canadian Gas Association, to investigate the feasibility of setting up or designating a low carbon gas registry. This, alongside a third-party audit component, would allow for the environmental attributes of low carbon gases to be tracked and retired so they cannot be double counted across jurisdictions or resold to other users.
- Together these requirements will mitigate carbon accounting risks for the Provincial inventory and increase the certainty that GHG emissions reductions are occurring through displacement of conventional natural gas.
- There are many mechanisms that the Province is considering under the CleanBC Roadmap to help reduce emissions from the natural gas sector, and Ministry staff are working closely with our colleagues across government to determine the best course of action. The GGRR is a good transitional measure which enables the utilities to plan for and implement emission reductions activities while limiting the ratepayer impact under the price and volumetric caps.

Attachments: N/A

2023/24 Estimates Note Advice to the Minister

Ministry: Ministry of Energy, Mines and Low Carbon Innovation
Minister Responsible: Josie Osborne

Cross Reference:

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2024/25 Estimates Note Advice to the Minister

Ministry: Ministry of Energy, Mines and Low Carbon Innovation
Minister Responsible: Josie Osborne

Title: Climate Aligned Energy Framework

Drafted/Revised: April 9, 2024

Issue: Development of a Climate Aligned Energy Framework

Response:

- The Framework will articulate the Province's overall vision, principles, goals, and priority actions and ensure that our energy system will be there to support a clean, competitive, and inclusive British Columbia (B.C.).
- Our government will ensure our future prosperity will be enabled by an energy system that is powered by our world leading low carbon energy resources.
- This vision will demonstrate that we are planning for a clean future and that B.C.'s energy systems will continue to be reliable and affordable while they evolve to support our climate and economic growth objectives.
- Development of the Framework is grounded in the Province's other key priorities and initiatives, such as CleanBC and StrongerBC.
- I look forward to releasing the Climate Aligned Energy Framework later this spring. In addition to the work of the BC Hydro Task Force, this work will put the Province on the path to a clean and prosperous future for all British Columbians.
- This framework will set the stage for future work and inform a go-forward energy plan. I look forward to continued partnership with industry, stakeholders, First Nations and Indigenous groups and others moving forward.

Background/Status:

- The Climate Aligned Energy Framework mandate letter item.
- Our work is focused on the release of a public vision document by the end of spring 2024. The Framework is not intended to be a full energy plan with detailed actions and planning at this point of its development, rather it will set the stage for for engagement with the public on an energy plan in the next mandate.

2024/25 Estimates Note Advice to the Minister

Ministry: Ministry of Energy, Mines and Low Carbon Innovation
Minister Responsible: Josie Osborne

- The Ministry is taking a principle-based approach to develop the Framework:
 - Aligns with CleanBC, StrongerBC, and supports B.C.'s climate targets.
 - Enables market transformation to meet B.C.'s climate targets.
 - Emphazises the importance of energy efficiency now and into the future.
 - Maintains energy reliability and security.
 - Protects affordability and competitiveness of energy for people and businesses.
 - Is inclusive of partnership opportunities with First Nations.
 - Informs the highest value and best use of energy resources in the mid to long term.
 - Considers all energy types and embraces new technologies.
 - Supportive of clean growth economic opportunities and jobs.
- As part of the development of the Framework, the Ministry facilitated a working group for B.C.'s large gas and electric utilities and government to collaboratively discuss possible future clean energy scenarios for B.C.
- The Minister hosted five roundtable engagement sessions with over fifty stakeholders representing a broad variety of sectors including industry, municipalities, First Nations organizations and environmental non-government organizations as part of developing the Framework.
- Key themes heard at the Ministerial roundtables included:
 - The importance of taking a regional approach to the energy transition and clean energy development, where we recognize the different opportunities and needs of different regions of B.C.
 - The need for the Framework to prioritize energy affordability and reliability alongside climate objectives. The Framework should be clear that there will be costs and trade-offs.
- In collaboration with the First Nation Energy and Mining Council (FNEMC), the Ministry also conducted broad engagement with First Nations in B.C. as part of developing the Framework.
- Key themes heard from engagement with First Nations included:
 - The Framework is an opportunity to fundamentally incorporate the economic interests of First Nations in a new way of approaching development and energy systems in B.C.
 - The importance of early and meaningful inclusion of First Nations within the planning and decision-making process for the development of clean energy resources and infrastructure.

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- A common theme emerging from the Ministerial roundtables and engagement with First Nations is a desire for enhanced skills training and educational and awareness opportunities related to clean energy resources, resource development options, and jobs.

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2024/25 Estimates Note Advice to the Minister

Ministry: Ministry of Energy, Mines and Low Carbon Innovation
Minister Responsible: Josie Osborne

Title: Evolving the Role of the British Columbia Utilities Commission (BCUC)

Drafted/Revised: February 12, 2024

Issue: Adapting the role of the BCUC to support BC's clean energy transition.

Response:

- In the same way we are taking active steps to align British Columbia's (BC) energy system with our climate targets and other key priorities, the Province is committed to working with the BC Utilities Commission (BCUC) in determining their role in the clean energy transition.
- As an independent agency, the BCUC serves as an economic regulator of public energy utilities, with a focus on the benefits and costs to ratepayers.
- In February 2024, we updated the energy objectives in the Clean Energy Act, providing a clear signal to the commission regarding the Province's climate and affordability goals.
- As we move forward, Government will be working closely with the BCUC and others to determine how its powers and mandate can be adapted to incorporate new responsibilities to support the energy transition.

Background/Status:

- The Minister's Mandate letter includes the priority to "Work with the BC Utilities Commission in supporting BC's clean energy transition, in alignment with our province's climate goals to achieve net zero by 2050, and affordability objectives."
- The Climate Solutions Council (CSC) supports this and recommends Government consider a fundamental transformation of the BCUC to align decision-making with decarbonizing the energy system.
- As an economic regulator, the BCUC ensures that customers have access to safe, reliable energy service rates, while allowing the utility the opportunity to earn a fair rate of return on its investment. The BCUC conducts public, open and transparent review processes of energy utility applications.
- Additionally, the BCUC was designated as the administrator of the Fuel Transparency Act to promote market competitiveness and to support public confidence in the fair and transparent functioning of the market.

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Minister Responsible: Josie Osborne

- Achieving BC’s greenhouse gas (GHG) reduction targets will require a fundamental realigning of BC’s energy system, including a re-think of the roles of electricity, gas, and other public utilities. This includes opportunities to leverage utility spending, and utilities’ close relationship with their customers, to implement GHG reduction initiatives and influence customer behaviour.
- The BCUC is a critical partner in the energy transition. As such, a revaluation of their role is required to support the Province’s climate ambitions while also protecting ratepayers from rising costs and ensuring reliable access to energy.
- The Province has taken initial steps by prioritizing emission reduction and affordability among the *Clean Energy Act* energy objectives the BCUC must consider in making decision on utility resource plans, capital projects, expenditure schedules and supply contracts.
- Modernizing the BCUC will be informed by the direction set under the Climate Aligned Energy Framework (CAEF), which will articulate the Province’s overall vision and priority areas for an energy plan next mandate.

Cross Reference: #22 Decarbonizing BC’s Gas Grid (GRR)
#25 Climate Aligned Energy Framework (CAEF)

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2023/24 Estimates Note Advice to the Minister

Ministry: Ministry of Energy, Mines and Low Carbon Innovation
Minister Responsible: Josie Osborne

Title: Role of the Natural Gas System

Drafted: February 13, 2024

Issue: Role of the Natural Gas System to Meet Demand During Extreme Weather Conditions

Response:

- All residents benefit from the characteristics of the natural gas system, particularly the ability of the gas system to deliver a large quantity of reliable energy throughout the Province and during periods of peak demand.
- Currently, natural gas distribution utilities (FortisBC and Pacific Northern Gas) meet about two-thirds of the province's peak winter energy demand.
- Natural gas pipeline and storage infrastructure are critical in supporting the Province's overall energy resilience by reliably delivering natural gas, during short and long-term duration needs, such as extreme weather or drought conditions.
- Natural gas is transported through an extensive pipeline network, which is typically built underground. This infrastructure minimizes the risk of weather-related damage that may affect the above-ground transmission and distribution lines of other energy sources.
- Natural gas can be conveniently stored in large quantities, ensuring fuel availability during inclement weather when other energy sources may face disruptions. This storage capacity serves as a reliable backup and safeguard against sudden energy supply interruptions.
- The ability of the gas system to meet seasonal and peak day demands is a key resource that must be considered when designing future energy systems and building pathways to a low-carbon future.

Background/Status:

Advice/Recommendations

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Minister Responsible: Josie Osborne

Advice/Recommendations

- Gas distribution pipelines can continuously transport a significant amount of energy to market centres like Vancouver on a daily basis. The pipeline infrastructure is underground and has multiple redundancies, making it extremely reliable and resilient to extreme weather.
- Further, natural gas can be compressed, liquefied, or stored to provide resiliency for BC's energy system during unforeseen events such as heat domes and wildfires. Liquefied natural gas (LNG) facilities such as FortisBC's Tilbury facility in Delta or Mount Hayes in Ladysmith provide extra storage to help meet peak demand.
- To meet CleanBC targets, some sectors, such as building equipment and transportation, will need to transition away from traditional natural gas to electricity, hydrogen and RNG in the medium term. Utilizing and coordinating both the electricity and gas systems in BC will play a crucial role in meeting Provincial climate objectives while also maintaining energy reliability and affordability.

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2023/24 Estimates Note Advice to the Minister

Ministry: Ministry of Energy, Mines and Low Carbon Innovation
Minister Responsible: Josie Osborne

Title: The Fuel Price Transparency Act

Drafted: February 13, 2024

Issue: An update on the Fuel Price Transparency Act in British Columbia.

Response:

- Since 2019, Government has taken a series of proactive steps to provide a greater level of transparency to how fuel prices are set around the province.
- The *Fuel Price Transparency Act* (FPTA) aims to “look behind the curtain” of the market for gasoline and diesel by collecting information and publishing from companies selling fuel in the province.
- As administrator of the FPTA, the British Columbia Utilities Commission (BCUC) has launched and maintains an open and transparent website that provides insights into the various components that make up our fuel prices (the price of crude oil, wholesale margins, retail margins and taxes).
- We believe information behind fuel pricing should be available to British Columbians. By pulling back the curtain, companies will be publicly accountable for unexplained markups and cost increases.
- If the BCUC identifies any egregious market behaviour, Government will review the evidence and take appropriate action to protect British Columbians.
 - The BCUC’s report to government in December 2023 concluded from 2019 to 2022, the unexplained retail price difference between a litre of gasoline in BC and Western Canada declined from 9.2 ¢/L to 3.5 ¢/L, a decrease of approximately 62%.

- Advice/Recommendations

Background/Status:

- Except for a national emergency, the Canadian government has no jurisdiction over the direct regulation of retail fuel prices. Under the Constitution, the provinces have that authority. The Province of BC does not regulate the retail price of gasoline or diesel. This means that prices can fluctuate as BC relies on market mechanisms to determine the price consumers pay for fuels. There are

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Minister Responsible: Josie Osborne

currently no mechanisms in place in BC through which Government could regulate the price of gasoline or diesel.

- In the spring of 2019, the price of fuel at the pump jumped by over \$0.40 per litre, costing British Columbians an extra \$62 million each day and impacting overall affordability. The rapid rise in prices and growing disconnect from prices in other areas of Canada became a subject of significant interest to British Columbians. Government responded by directing the BCUC to undertake an inquiry, exploring factors that may be influencing gasoline and diesel prices in BC.
- On August 13, 2019, the BCUC issued its Gasoline and Diesel Inquiry Final Report (Inquiry) which found that there was an unexplained price differential of approximately \$0.13 per litre between the United States Pacific Northwest and Vancouver wholesale price for gasoline as well as a BC-wide average differential of \$0.10 per litre.
- The Inquiry found that the BC fuel market was oligopolistic (i.e., a few companies exert control over the market). The BCUC estimated that BC consumers paid approximately \$490 million more per year for gasoline because of this differential.
- In response, Government enacted the Fuel Price Transparency Act (FPTA) in Fall 2019 and brought it into force on March 9, 2020. On that date the BCUC was named Administrator of the FPTA, allowing the BCUC to collect information on the market conditions involved in setting prices for gasoline and diesel. The BCUC is required to recover its costs as Administrator of the FPTA from Government.
- The BCUC's work as Administrator of the FPTA is ongoing, and it provides transparent information about BC's fuel market. To date, the BCUC has:
 - (1) launched GasPricesBC.ca as the informative and public-facing website for the FPTA;
 - (2) developed and implemented a system for data collection from fuel market wholesalers and retailers; and
 - (3) completed four special projects in response to public requests for information about fuel prices:
 - **Exploration Project #1:** Monitoring Fuel Price Behaviours in 11 cities (Kamloops, Kelowna, West Kelowna, Port Alberni, Powell River, Revelstoke, Squamish, Vernon, Langley, Nanaimo, and Metro Vancouver):
 - Fuel prices in some cities are less dependent on the cost of components such as wholesale price, crude oil price, taxation.
 - Some regions like Squamish exhibit similar fuel pricing to Vancouver despite having lower fuel taxes and levies.
 - **Exploration Project #2:** Monitoring Fuel Price Behaviours in 12 cities (Campbell River, Chetwynd, Chilliwack, Cranbrook, Duncan, Gibsons, Hope, Merritt, Penticton, Salmon Arm, Terrace, and Williams Lake)

2023/24 Estimates Note Advice to the Minister

Ministry: Ministry of Energy, Mines and Low Carbon Innovation
Minister Responsible: Josie Osborne

- **Exploration Project #3:** Monitoring Retail Margins and Price Factors for Select Cities
 - Sampled gas stations along the Sea-to-Sky Highway, Highway 1, and in Powell River appeared to earn higher margins on each litre of gasoline sold than the sampled retail stations in Metro Vancouver and the BC average.
- **Exploration Project #4: Monitoring Fuel Pricing Behaviours**
 - Concluded that retailers were not taking advantage of the market volatility resulting from the war in the Ukraine to set higher prices and earn higher margins than would be expected under normal conditions.
- In December 2023, the BCUC presented its update on the unexplained price differential to the Minister. The BCUC, among other things:
 - From 2019 to 2022, the unexplained retail price difference between a litre of gasoline in BC and Western Canada declined from 9.2 ¢/L to 3.5 ¢/L, a decrease of approximately 62%.
 - The greatest reduction was observed in Vancouver where the unexplained difference in the price consumers pay at the pump declined by approximately 84%.
 - Since 2019, there has been an improvement in transparency for fuel pricing, coinciding with the introduction of the FPTA. BCUC staff have recommended continuing to monitor BC's fuel market to ensure transparency of fuel pricing.

Attachments:

Contact:

Les MacLaren	Assistant Deputy Minister	Electricity Utility Regulation Division	778-698-7183
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2024/25 Estimates Note Advice to the Minister

Ministry: Ministry of Energy, Mines and Low Carbon Innovation
Minister Responsible: Josie Osborne

Title: ICE Fund & Partnerships

Drafted/Revised: February 13, 2024

Issue: Innovative Clean Energy (ICE) Fund is a Special Account supporting the B.C. clean energy sector through partnerships

Response:

- Established in 2007, the Innovative Clean Energy (ICE) Fund is a legislated Special Account designed to support Government's energy and environmental priorities and advance British Columbia (BC)'s clean energy sector.
- Funding for the Special Account comes via a 0.4% levy applied to the final sale of specified "energy products" (primarily natural gas). The levy is forecast to generate approximately \$9 million (M) in 2024/25.
- Through Partnerships, the ICE Fund is well positioned to advance the CleanBC Roadmap to 2030 by supporting clean energy technologies that reduce greenhouse gas emissions.
- Partnerships with private, academic, and federal agencies are an effective way to secure investments in B.C.'s energy innovation ecosystem. The ICE Fund continues to seek projects and build partnerships to support the development of pre-commercial clean-energy projects and technologies.
- From Budget 2023, \$2.0M funding for Partnerships is allocated to various initiatives that are scheduled to be announced in 2024. These initiatives include existing partnerships with Sustainable Development Technology Canada and PacifiCan.

Background/Status:

Current Status:

- Since 2008, approximately \$112M has been allocated to support pre-commercial clean energy and technology projects and various programs and initiatives.
- Over the last 15 years, ICE Fund investments have leveraged projects worth \$508M, creating or sustaining more than 950 direct jobs and more than 650 jobs in project construction.
- The ICE Fund publishes performance reports on the Ministry's website. The most recent report (2017/18 to 2022/23) outlines the 67 different projects funded and \$62M administered through the ICE Fund, contributing to a project value of over \$386M.

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- From Budget 2023, multiple initiatives have been approved and will be announced in 2024.

Partnerships:

- Partnerships are developed and managed to support the following objectives: leveraging other funding sources (e.g., federal); accessing resources, expertise, and project referrals; supporting efficient program administration such as conducting due diligence and expert reviews during the project evaluation process while maintaining independent decision-making authority and governance requirements; developing B.C.'s clean technology ecosystem; and providing an improved program funding experience.
- In March 2017, Canada and BC signed a memorandum of understanding (MOU) effective to March 2022 and executed a three-year, \$40M Joint-Call Partnership for the development of pre-commercial clean energy projects and technologies. Each party committed \$20M and are represented by Sustainable Development Technology Canada (SDTC) and the ICE Fund, respectively. In March 2022, BC met its \$20M commitment with 16 approved projects to date. BC and SDTC continue to collaborate to jointly fund projects. The partnership with SDTC has demonstrated the value of leveraging significant federal and private investments into BC's clean energy technology innovation sector. SDTC's operations are currently paused temporarily as a result of a review by the Honourable François-Philippe Champagne, Minister of Innovation, Science and Industry's department Innovation, Science and Economic Development Canada (ISED). Operations are anticipated to resume in the coming months once this matter is resolved.
- In 2022/23, one-time contingency funding of \$23.6M supported five initiatives. These initiatives included partnerships with SDTC and PacifiCan. One of these initiatives recently announced was:
 - On November 16, 2023, Josie Osborne, Minister of Energy, Mines and Low Carbon Innovation was joined by George Heyman, Minister of Environment and Climate Change Strategy to announce \$16.5 million in provincial funding for a pilot project for B.C.-based hydrogen-energy company HTEC to procure six different heavy-duty fuel-cell trucks to begin the use of hydrogen in the commercial transportation sector.
- The Province is interested in developing further partnerships to undertake investments in clean energy and GHG reduction projects that advance CleanBC goals, including fostering existing and new partnerships with organizations such as SDTC, PacifiCan, Natural Resources Canada (NRCan), the Innovation, Science and Economic Development (ISED) Strategic Innovation Fund (SIF), Centre for Innovation and Clean Energy (CICE), and academic institutions.

2024/25 Estimates Note Advice to the Minister

Ministry: Ministry of Energy, Mines and Low Carbon Innovation
Minister Responsible: Josie Osborne

Cross Reference: 08_ICE Fund 3-year Spending Plan (EURD)

Contact:

Les MacLaren	Assistant Deputy Minister	Electricity Utility Regulation Division	778 698-7183
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2024/2025 Estimates Note Advice to the Minister

Ministry: Ministry of Energy, Mines and Low Carbon Innovation
Minister Responsible: Honourable Josie Osborne

Title: ICE Fund 3-year Spending Plan

Revised: February 13, 2024

Issue: Innovative Clean Energy (ICE) Fund plans to support the development of pre-commercial clean-energy projects and technologies

Response:

- Funding for the Special Account comes via a 0.4% levy applied to the final sale of specified “energy products” (primarily natural gas). The levy is forecast to generate approximately \$9 million (M) in 2024/25.

s.12; s.13

- In Budget 2023, the ICE Fund had \$11.128M in operating expenses allocated for 2023/24.

s.12; s.13

Background/Status:

- The ICE Fund is a Special Account designed to accelerate the development and commercialization of emerging clean energy technologies with funds collected and disbursed in accordance with statutory funding authority.
- The ICE Fund must meet the requirements set out in Section 9.5(3) (a)(ii) of the *Special Accounts Appropriation and Control Act*. It currently receives funds through a 0.4% levy on the final sale of specified energy products: natural gas; fuel oil; and grid-delivered propane. ICE Fund revenue fluctuates based on energy sales revenue which is affected by natural gas commodity prices, sales volumes and utility service costs influenced by infrastructure maintenance and upgrades.
- In Budget 2023 (Attachment 1), the ICE Fund allocated funding to:
 - Project partnerships in pre commercial clean-energy technologies (\$2M),
 - Implementation of actions in support of BC’s Hydrogen Strategy (\$1M),
 - CleanBC Go Electric - Hydrogen Fuelling (\$5.2M), and;
 - CleanBC Go Electric – Advanced Research and Commercialization (\$2M) programs.

2024/2025 Estimates Note Advice to the Minister

Ministry: Ministry of Energy, Mines and Low Carbon Innovation
Minister Responsible: Honourable Josie Osborne

Cross Reference: 07 – ICE Fund & Partnerships (EURD)
07 – BC Hydrogen Strategy (ERD)
03 – CleanBC Go Electric Vehicle Industry (EDD)
04 – CleanBC Go Electric Infrastructure Training (EDD)

Contact:

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2024/2025 Estimates Note Advice to the Minister

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ATTACHMENT 1:

Budget 2023 Approved Spending

ICE Projected Annual Spending Outflows	Approved in Budget 2022
Hydrogen Strategy	\$ 1,000,000.00
CleanBC Go Electric Hydrogen Fueling	\$ 5,200,000.00
CleanBC Go Electric Advanced Research and Commercialization	\$ 2,500,000.00
Partnership	\$ 2,000,000.00

2024/25 Estimates Note Advice to the Minister

Ministry: Ministry of Energy, Mines and Low Carbon Innovation
Minister Responsible: Honourable Josie Osborne

Title: Centre for Innovation and Clean Energy (CICE)

Drafted/Revised: February 12, 2024

Issue: Government established the CICE to support innovation and commercialization of clean energy technologies to meet CleanBC targets.

Response:

- In September 2021, as part of StrongerBC, the British Columbia (B.C) Centre for Innovation and Clean Energy (CICE) was announced and became operational on October 25, 2021.
- CICE establishment and operations were funded by \$35 million from B.C., \$35 million from Natural Resources Canada, and \$35 million from Shell Canada, for a total of \$105 million.
- CICE's focus is on initiating new technology to accelerate the path to net-zero emissions by 2050.
- CICE's mandate is aligned with the B.C. Hydrogen Strategy and the CleanBC Roadmap to 2030 objectives to build B.C.'s low carbon economy.
- As of January 2024, CICE reports:
 - Over \$22 million invested into 34 BC-based projects, with a combined valuation exceeding \$141 million.
 - Investments are on track to have a projected annual reduction of 1.74 million metric tons in greenhouse gas emissions.
 - Indigenous participation was 28% for 2023 funded companies.
 - 64% of funded 2023 projects were led by BC-based startups.

Background:

Centre for Innovation and Clean Energy Activities - 2021/22:

- In February 2022, the CICE and the Ministry of Energy, Mines and Low Carbon Innovation (EMLI) established a five-year Trusted Partnership and Shared Cost Arrangement to collaborate on the implementation of the B.C. Hydrogen Strategy.
- As part of the Hydrogen Strategy implementation, EMLI transferred \$998,000 during the fiscal year 2021/22 to CICE to complete studies on EMLI's behalf.

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Centre for Innovation and Clean Energy Activities - 2022/23:

- CICE committed over \$4.83M for 10 Clean Energy Innovation projects valued at \$22.05M, supporting sectors such as mining, forestry, marine, oil and gas, aviation, transportation, and industrial manufacturing.
- The following studies were published on EMLI's behalf:
 - Northeast B.C. Carbon Capture and Storage (CCS) Atlas (Released January 2023)
 - Carbon Intensity of Hydrogen Production Methods Study (Released March 2023)
 - BC Hydrogen Regulatory Mapping Study (Released June 2023)
- In March 2023, CICE released a B.C. Carbon Management Blueprint that provides an understanding of existing carbon management approaches, the value chain, and the market participants that drive the supply and demand of these solutions.

Centre for Innovation and Clean Energy Activities - 2023/24:

- In 2023 overall, CICE allocated \$19.7 million in non-dilutive funding to 23 BC-based innovators supporting focus areas such as: battery and energy storage; carbon management; low carbon fuels; and low carbon intensity hydrogen.
- In April of 2023, CICE was chosen as the Ecosystem Supporter of the Year at Foresight Canada's 2023 BC Cleantech Awards.
- In June of 2023, CICE and FortisBC announced an Innovation Call for Forestry Residue Management to provide up to \$6 million in non-dilutive funding to be awarded for innovation that increases resilience in British Columbia's forests.
- EMLI and CICE will continue to collaborate on joint priorities identified in the Trusted Partnership Agreement in support of achieving objectives in the B.C. Hydrogen Strategy and the CleanBC Roadmap to 2030.

Cross Reference: 07 - ICE Fund & Partnerships (EURD)

Contact:

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