

February 12, 2024

Energy Efficiency Branch (c/o Sean LeRoy)
B.C. Ministry of Energy, Mines and Low-Carbon Innovation
P.O. Box 9314 Stn Prov Govt
Victoria, B.C. V8W 9N1

Re: Highest Efficiency Equipment Standards Regulatory Consultation

Dear Mr. LeRoy,

Thank you for the opportunity to provide input on the development of the point-of-sale standards for space and water heating under the new Highest Efficiency Equipment Standards (HEES). The creation of standards for the purchase and replacement of water and heating equipment is an important tool in ensuring that homes in B.C. are meeting emissions reductions and climate resiliency goals.

We believe the proposed timeframe, of an effective date of January 1, 2030, is an appropriate amount of lead time for industry members and building owners to understand and prepare for future requirements. The effective date of 2030 combined with the expected annual turnover of 4-5% and the current policies for new construction should allow B.C. to meet net-zero by 2050 targets, if financial incentives and subsidies continue to drive demand until regulations and market forces take over.

The proposal recognizes the skills training and industry capacity building that will be required, and we are pleased to see the connection to the Future Ready Skills Plan. We encourage continued direct connection with a wide range of industry members, from all regions of the province, to ensure workforce support is developed based on local needs.

Complementary Policies

As noted in the HEES consultation materials, the success of the HEES and CleanBC relies on the interaction and implementation of a number of policies. B.C. continues to show leadership in the performance of new buildings and the advancement of the building code. To ensure new construction is helping drive market readiness while providing highly efficient and climate ready homes the province must support local governments in adopting the Zero Carbon Step

Code. In September, Pembina sent a [letter to local governments across B.C.](#) with over thirty industry signatories calling for the adopting of the ZCSC at the highest tier prior to 2030. In climate zone 4 and most of climate zone 5, new homes are already performing well above code thresholds, helping ensure air-source heat pumps are successfully providing heating and cooling. The ZCSC should be used as a tool to limit new gas connections in regions where high performance construction and clean electricity can fully decarbonize space and water heating.

The finalization of the GHG reduction standard (GHGRS) is a key mechanism for ensuring emissions targets from the building sector are met. The required energy mix between electricity and natural gas for residential heating and cooling requirements is not yet clear but we anticipate that gas will remain a part of the system over the next couple of decades. The portion of renewable natural gas (RNG), hydrogen and other biofuels that will be available for different uses also remains unclear. As described in our [primer on the role of RNG in the ZCSC](#), these limited resources should be allocated to the sectors that are most challenging to electrify. The GHGRS will ensure that the gas delivered to homes is low-carbon and will work in tandem with electrification to the extent possible.

The incentives, rebates and loan mechanisms from all levels of government have proven to be effective methods of increasing heat pump installations. Equipment and efficiency improvements are costly and remain out of reach for many low-income homeowners and those living with energy poverty, and public funding is still required to support those who need it most. The CleanBC Better Homes program is vital in supporting homeowners while the market scales up and cost compression makes decarbonization more affordable. To prevent the program from disproportionately impacting low-income households and those living with energy poverty, the size of incentives available should be increased, the eligible housing stock needs to be broadened to include the full residential sector and grants for zero-cost deep retrofits should be given to low-income households living with energy poverty.

Recommendations

Regional Considerations

There have been widespread concerns, expressed by industry members and homeowners, on technical feasibilities, costs, and energy supply requirements of CleanBC policies and how they uniquely impact different regions of the province.

Specific consideration needs to be given to the electrical production and transmission capacity in rural, remote, and northern areas, especially where the transition off propane, oil and diesel fuels could be more challenging. Remote communities have unique building improvement needs, energy supply mixes and workforce challenges.

Rural and northern communities that are grid-connected or have independent grids also have unique needs related to the availability of electricity supply, seasonal temperatures, equipment availability, and local industry capacity. The proposed effective date of 2030 could provide enough time to address any regional barriers or challenges if direct effort is made to accommodate local contexts.

Plans for implementation of HEES in rural, remote and northern communities should be made through direct consultation and co-development with community members.

Dual-Fuel Systems

We recognize that dual-fuel systems will be required in some communities to provide backup heating due to seasonal temperatures and/or peak load requirements. The complementary policies discussed should be used to restrict the installation of dual-fuel systems in regions where they are not needed, for example in climate zone 4.

We look forward to hearing more details on the planned system controls to ensure that electricity remains the primary heating source once installed. We recommend reviewing the success of the Hydro Quebec model where a temperature sensor automatically switches between the systems, used in conjunction with two electricity rate levels which ensures affordable heating while reducing carbon emissions and ensuring electricity is the default energy source.

Education and Communication

The HEES and other CleanBC policies designed to mitigate climate change also present opportunities for B.C. to incorporate adaptation measures and support affordability and they need robust education and communication plans. Industry members and the public must understand what the changes are, why they are happening, and how they fit into the overall CleanBC plan but also how they benefit from envelope and equipment upgrades.

The provincial government also has an important role to play in providing reassuring messaging and information on the anticipated requirements and availability of electricity, natural gas, and low-carbon gases between now and 2050. The government must work closely with utilities to require long-term energy plans that provide clarity on the supply levels of electricity that be expected at what time frames. Supply uncertainties are resulting in delayed fuel switching in regions where it is viable and creating space for misinformation where peak energy loads can be met. These long-term energy plans must also incorporate rate structures that will support and incentivize increased electrification.

Summary

- The HEES is an important tool for decarbonization and climate readiness of existing buildings and the proposed effective date provides sufficient time for industry and building owners to prepare.
- The complementary CleanBC policies and actions under the current political mandate must be aligned in supporting the industry capacity to meet changing standards while prioritizing the most vulnerable homeowners and tenants.
- Regional differences must be given careful consideration with localized support and engagement plans, especially in remote, rural and Indigenous communities.
- Dual-fuel systems may be necessary in some regions of the province, but careful consideration should be given to where they are implemented and how controls will balance decarbonization with affordability objectives.
- The success of the HEES and complementary CleanBC and buildings policies relies on robust communications plans that provide support and clarity to industry members and homeowners while addressing any anticipated potential unintended consequences.
- Industry members and homeowners need reassurance that fuel switching will be supported by reliable electricity and fair utility rates.

Thank you again for the opportunity to provide input into the development of the HEES. We look forward to future opportunities to engage.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Betsy Agar', with a long horizontal flourish extending to the right.

Betsy Agar
Director, Buildings Program
Pembina Institute