

ENGAGEMENT RESULTS

Toward a Clean Growth Future

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ENGAGING WITH BRITISH COLUMBIANS

What We Heard from Individuals

British Columbia's new CleanBC Strategy brings together our action on climate change and clean energy to drive sustainable economies and healthy communities across the province.

To begin developing the strategy, we created the first of a broad series of intentions papers. These initial papers were developed to gather input on proposed policy actions in the following three areas:

- ▶ Clean transportation
- ▶ Clean, efficient buildings, and
- ▶ A clean growth program for industry

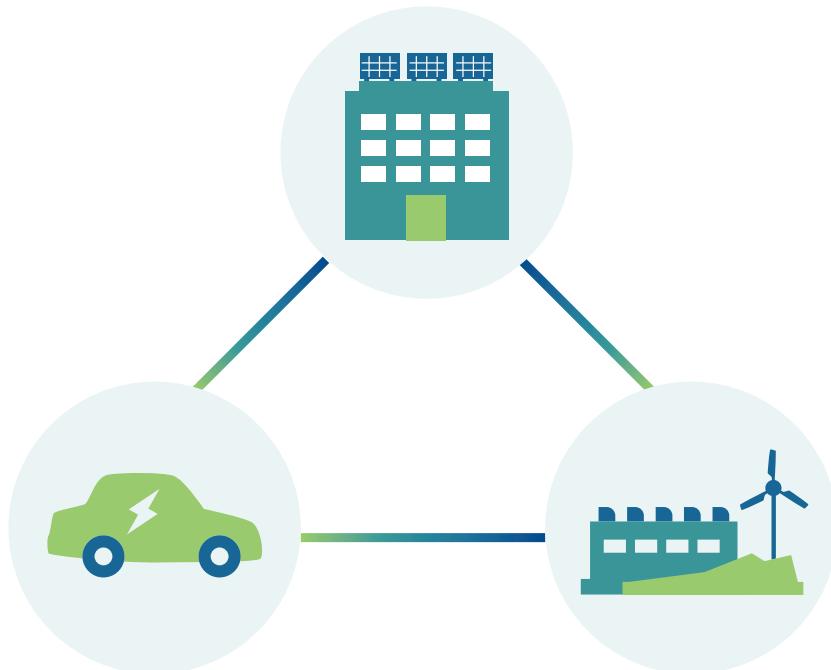
The public was invited to provide feedback from July 20 to August 27, 2018. Public input opportunities included participating in online discussion forums and submitting feedback via email.

In addition to the public feedback covered in this report, over 150 organizations provided input through submissions.

View their direct input [online](#).

This report summarizes the feedback we heard from individuals. **It does not include views of organizations that submitted separate submissions.** The [organizational submissions](#) as well as [archived discussions](#) are available online.

The feedback we received was an important part to developing our strategy, and was balanced against other critical factors – such as technical feasibility, government costs, timing considerations and desired outcomes. There will be more opportunities for public engagement in the coming year as we continue our work to build a cleaner economy in B.C.



Imagining the Future

What will a clean growth future look like? Over time, we imagine a province where all British Columbians:

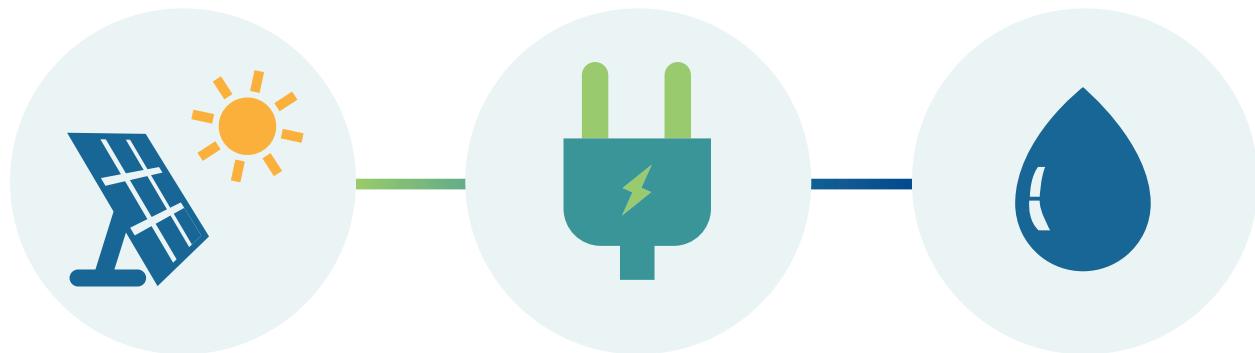
- ▶ use energy more efficiently
- ▶ use clean energy to power homes, workplaces and vehicles
- ▶ move easily between home, work and other destinations
- ▶ live in healthier, more comfortable and energy efficient buildings
- ▶ live in communities with cleaner air, more resilient infrastructure and more resilient ecosystems
- ▶ benefit from industries using efficient transportation systems that run on cleaner fuels
- ▶ have new job opportunities as we leverage technology and innovation to expand trade
- ▶ produce natural resources and products in the cleanest way possible to support sustainable development around the world, and
- ▶ benefit from industries that embrace clean growth and serve as the engines of economic prosperity.

About the Strategy

The new CleanBC strategy outlines our vision for sustainable growth across the province, using our clean energy to power the economy while driving down greenhouse gas emissions (GHG).

By working together to integrate economic, climate, and energy solutions, we can protect BC's unique environment, meet our climate commitments, and generate benefits for more people as we build a cleaner economy.

Visit [Clean BC](#) to learn more.

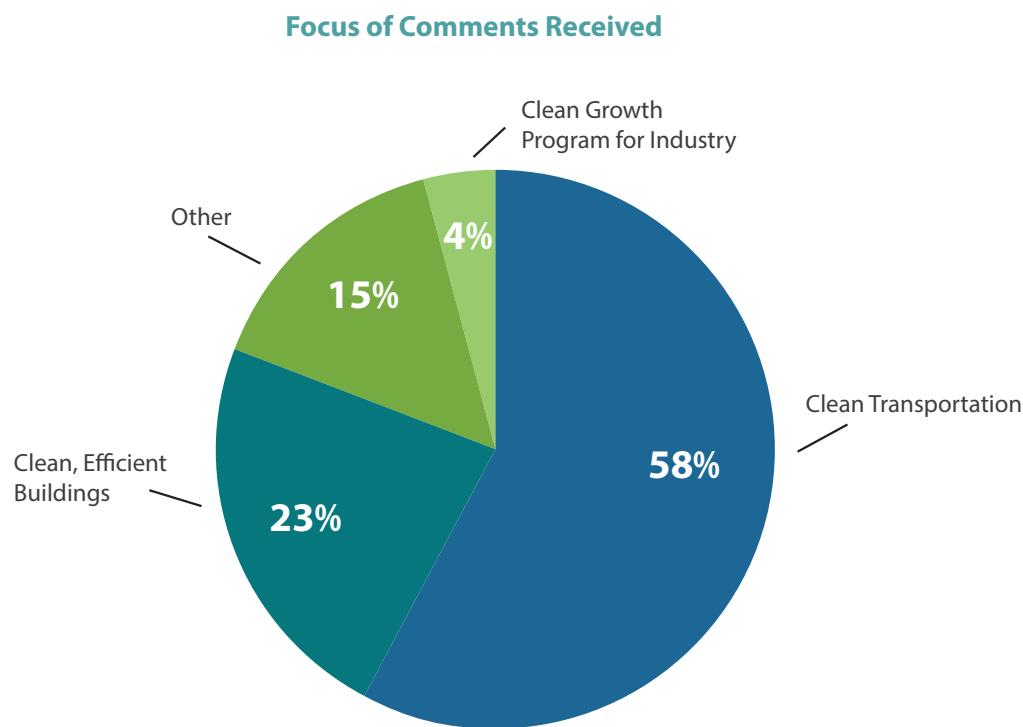


WHAT WE HEARD

THE BIG PICTURE

In total, 607 people provided feedback on the action ideas outlined in the discussion papers for our clean growth strategy. We received 840 online comments from 393 people, and 219 email submissions from 214 people. Feedback came from across the province, and from people of all ages.

Of the three discussion areas (Clean Transportation; Clean, Efficient Buildings; A Clean Growth Program for Industry), Clean Transportation was the most popular topic, followed by Clean, Efficient Buildings. The chart below shows this breakdown as a percentage of total comments.



We also received a number of comments, suggestions and concerns about climate change and the Province's approach to clean growth generally, including several comments relating to subjects that were beyond the scope of the three discussion areas that were the focus of this consultation period. These and other comments are available in the archived [online discussions](#).

In the remainder of this report, we review the comments from each of the discussion areas in more detail, with an emphasis on exploring key trends, common suggestions, and frequently mentioned concerns.

CLEAN TRANSPORTATION

In the Clean Transportation intentions paper, we highlighted three key discussion topics:

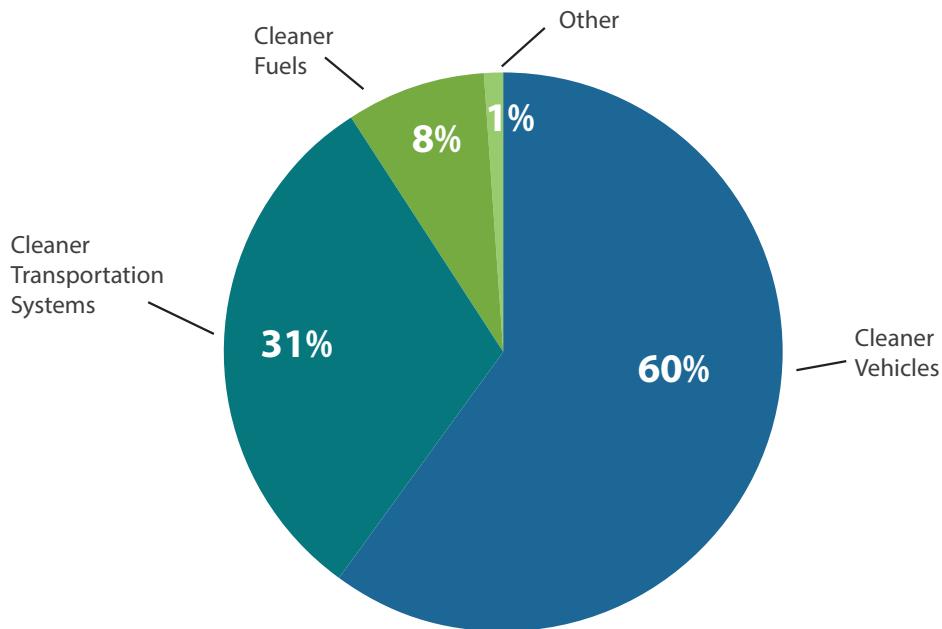
- ▶ Cleaner vehicles
- ▶ Cleaner transportation systems, and
- ▶ Cleaner fuels

Within each of these areas, we found that people were most interested in discussing ideas and actions related to cleaner vehicles, though many were also interested in talking about ideas and actions for cleaner transportation systems.

In addition to the public feedback covered in this report, over 150 organizations provided input through submissions.

View their direct input [online](#).

Focus of Comments Received



Overall, we found that policy actions that support the uptake of zero-emission vehicles (ZEVs) were very popular, as were actions that would help to reduce our reliance on single occupancy vehicles. There was significant support for policy actions relating to public transit and cycling infrastructure improvements.¹

Many people also commented that the intentions paper did not adequately capture the urgency of the issues at stake. There was a lot of support for the notion that we need to move faster than the Province's proposed timelines.

¹ The Province intends to release a second, more comprehensive intentions paper on transportation systems for input in 2019. This second intentions paper will incorporate and build off the input that was received during this initial round of consultation.

Cleaner Vehicles

Overall, we found that the comments we received were highly supportive of the Province taking action to support greater uptake of ZEVs on BC's roads. Those who participated in the discussion specifically indicated strong support for the following action ideas:

- ▶ Expanding incentive programs to help consumers purchase ZEVs, including both expanding existing incentive programs such as the Clean Energy Vehicle Program for BC, and offering additional incentives (e.g., PST exemptions and non-financial incentives such as preferential parking)
- ▶ Expanding the infrastructure needed to support ZEV use (e.g., by establishing provincial standards for electric vehicle charging infrastructure in new multi-unit buildings and expanding the province's fast-charging network)
- ▶ Requiring automakers to supply a certain percentage of ZEVs for the light duty market (e.g., 10% of sales by 2025)
- ▶ Implementing a future ban on the sale of new diesel and gasoline vehicles, and disincentivizing the use of such vehicles in the meantime (e.g., by increasing carbon taxes and insurance costs)
- ▶ Transitioning municipal bus fleets and other government vehicles to ZEVs as soon as possible
- ▶ Using incentives, mandates, and other means to encourage commercial and other specialty vehicles to switch to ZEVs

We also heard that:

- ▶ The phase out of ZEVs incentives should continue past the 5% threshold, either until the price gap between ZEVs and gasoline vehicles has closed, or until ZEVs make up a much larger percentage of vehicles sold
- ▶ Incentives for installing charging infrastructure in homes and other buildings should be revived and expanded
- ▶ The target dates for supply mandates and a phase out of diesel and gasoline vehicles should be moved up
- ▶ Bicycles and electric bikes should be included in incentive programs for cleaner vehicles

"Please increase incentives and reduce all taxes on the 20 most fuel efficient on the market – this will push the auto makers and car dealerships to provide better vehicles."

"I'd love to see the continuation of the CEV for BC rebate to help encourage people (like myself) to take advantage and get an EV. If it wasn't for the discount, I would not have considered the capital expense of getting an EV. I would also encourage you to advertise the rebate as I was only made aware of it by word of mouth."

[View more comments online.](#)

"Use carbon tax revenue to subsidize public charging stations and public education about clean energy cost savings."

"A ZEV mandate is essential – from conventional automakers wait times can be up to a year for an EV as supply is limited."

"Educate the general public on the cost of charging or the impact to their hydro bill if they charge at home. Many people are afraid that gas is ultimately cheaper!"

Cleaner Transportation Systems

Our transportation systems encompass everything from the design of our streets and communities to our interconnected network of highways, ports, railways, airports, ferries, transit routes, and active transportation infrastructure. With this in mind, it's not surprising that we received a lot of comments about potential policy actions for cleaner transportation systems. Some of the potential actions that received considerable support include:

- ▶ Investing more in public transit, and specifically, investing in ZEV infrastructure and electric trains (e.g., high speed rail)
- ▶ Investing in clean transportation infrastructure that is interconnected, provides easy access to cleaner options, and reduces demand for vehicles (with a focus on improving active transportation infrastructure in both urban and rural areas)
- ▶ Phasing out existing combustion engine ferries and replacing them with electric and/or electric hybrid models as soon as possible
- ▶ Creating cleaner and more efficient shipping corridors (e.g., by improving rail infrastructure for freight transport)

We also heard that:

- ▶ Active transportation, investments in new transit infrastructure and mode shift initiatives did not receive enough attention in the Clean Transportation intentions paper²

"[We need] city infrastructure that flips the current transportation model on its head: put walking and biking at the top, transit in the middle, and individual driving on the bottom, to guide funding and design decisions."

² The Province intends to release a second, more comprehensive intentions paper on transportation systems for input in 2019. This second intentions paper will incorporate and build off the input that was received during this initial round of consultation.

[View more comments online.](#)

- ▶ More interconnected infrastructure (public transit, parking for vehicle co-ops, etc.) is needed at key transportation hubs such as ferry terminals and airports
- ▶ More explicit goals and policies with respect to air, freight and industrial transportation are also needed
- ▶ Demand management programs should include supports for car co-ops/car sharing and more disincentives for single occupancy vehicles (SOVs) (e.g., taxes, limited parking opportunities)

"We need very significant changes in public transit. On my recent trip to Europe, everywhere I went (mainly in France and Spain) I was astonished and delighted to see that the cities I visited are really doing the job. Moving about the cities is easy with frequent, affordable and totally electric trains, buses, trams and metro. Limiting the numbers of personal cars within a city should be seen as essential and much healthier for everyone."

"This province needs to fund an integrated transportation infrastructure that efficiently moves people and goods around without a heavy reliance on cars, an infrastructure that includes robust and safe (separated) cycling and walking trails and far more use of railways for transporting people and goods."

"The push for policy and infrastructure should be on modal shift, modal share and road safety for people who walk, people who bike and mass public transit capacity expansion all over the province (everywhere covered by BC Transit)."

[View more comments online.](#)

Cleaner Fuels

Eight per cent of the transportation-related comments from individuals were about cleaner fuels. This input adds to the considerable feedback already gathered during stakeholder consultations from fuel suppliers and other industry, responsible for meeting low carbon fuel standards in B.C.

Individuals' comments on lower carbon fuel policies indicated mixed reactions, including support for higher standards, additional suggestions and some concerns.

Those who were supportive of ideas related to cleaner fuels also offered the following suggestions:

- ▶ Carbon taxes on biofuels created from waste products are counterintuitive, and should be removed as they present a barrier to uptake
- ▶ Incentives such as tax exemptions could be helpful (particularly incentives that specifically target higher percentage blends)
- ▶ Ensure focus is on developing cleaner fuels from waste products (e.g., methane from landfills and sewage), rather than from sources that may encourage waste or negatively impact natural cycles
- ▶ There is some interest in policy actions that would support commercial production and fuelling infrastructure (e.g., several people mentioned the need for a BC refinery)
- ▶ The target percentage for decreasing the average carbon intensity of fuels should be increased and implemented sooner rather than later; and
- ▶ Availability is an issue

Among those who had concerns about cleaner fuels, we heard that:

- ▶ It is important to look at the life cycle emissions of various biofuels to address any unintended consequences
- ▶ Investing in commercial production, related fueling infrastructure and the continued use of internal combustion engines is a waste of time and resources given that ZEVs are the future

"In the long term, we can't have vehicles that are still burning fuels, regardless of their percentage content of 'low carbon' fuels. Why, then, would we want to build a new industry that will, by necessity, become obsolete within a decade or two?"

"Yes, have government incentivize/encourage investment in renewable biofuels. They are part of the multi-pronged answer to getting rid of carbon diesel vehicles – including those 70% of commercial vehicles that are running on petroleum diesel today."

"Renewable or green diesel is a biofuel that can absolutely replace petroleum diesel, but needs an oil refinery to be produced. Possible incentives could be made available for these larger scale projects so that standard vehicles can use this fuel."

[View more comments online.](#)

CLEAN, EFFICIENT BUILDINGS

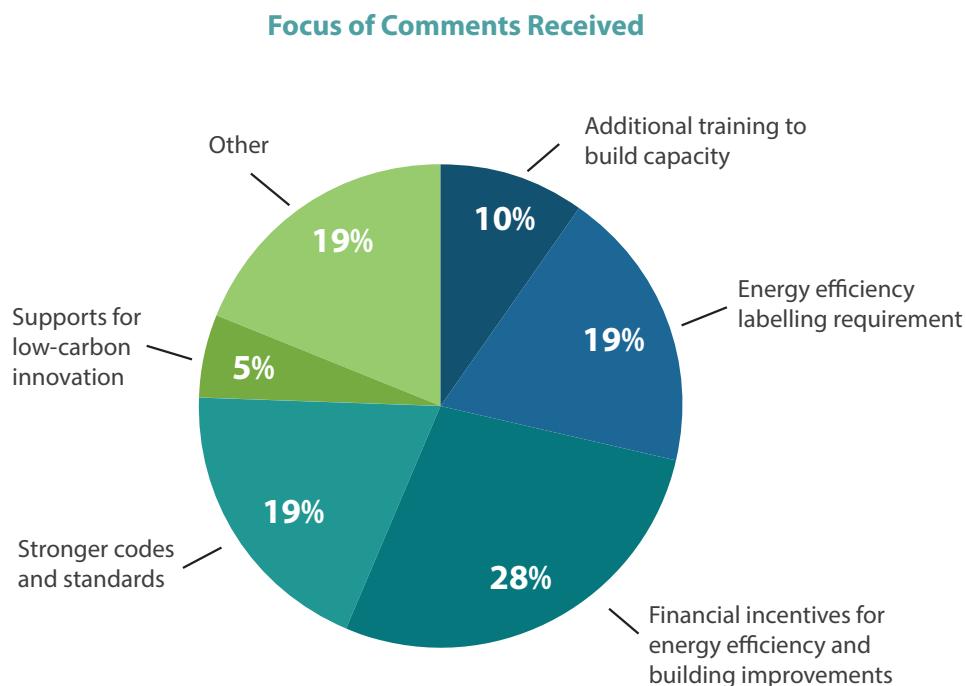
In the Clean, Efficient Buildings intentions paper, we highlighted five key potential action areas:

- ▶ An energy efficiency labelling requirement
- ▶ Financial incentives for energy efficiency and building improvements
- ▶ Stronger codes and standards
- ▶ Additional training to build capacity, and
- ▶ Supports for low-carbon innovation

In addition to the public feedback covered in this report, over 150 organizations provided input through submissions.

View their direct input [online](#).

Across these areas, we found that people were most interested in financial incentives tied to energy efficiency and building improvements, followed by the energy efficiency labelling requirement and stronger codes and standards. The chart below offers a picture of the focus of the comments received.



Overall, public feedback indicates that there is substantial support for policies that will help make energy efficient and low-carbon building solutions more available, accepted and affordable. Many respondents also suggested that the Province should lead by example by undertaking an aggressive program to retrofit existing public buildings.

Financial Incentives for Energy Efficiency and Building Improvements

Buildings that are more energy efficient reduce GHG emissions and offer long-term cost savings. However, the upfront costs associated with retrofitting an existing building or constructing a more efficient new build can be a deterrent for owners and property developers. Financial incentives help to offset some of those costs, which may explain why this was such a popular topic among those who participated in the Clean, Efficient Buildings discussion.

Overall, there is considerable support for the continuation and expansion of financial incentives for building owners (individuals and businesses) to take steps towards improving energy efficiency in the buildings they own. Here are some of the suggestions we heard:

- ▶ Increase incentives (e.g., rebates) and eliminate sales tax on all energy installations and equipment purchases
- ▶ Extend incentives to new builds
- ▶ Include windows, doors, furnaces, hot water heaters, insulation, solar panels, ground and air-source heat pumps and home battery technology among the incentives offered
- ▶ Tie incentives and rebates to carbon emission reductions (e.g., better incentives for retrofits that significantly cut carbon emissions)
- ▶ Offer interest-free loans to help people retrofit their homes
- ▶ Use carbon tax revenues for home improvement incentives
- ▶ Don't incentivize non-renewable energy sources (e.g., natural gas)

Some barriers and concerns were also mentioned:

- ▶ It is a mistake to offer incentives to people who are exchanging an old wood stove for a new one. Instead, incentives should be focused on encouraging people to switch to cleaner options such as heat pumps
- ▶ BC Hydro's 2-tier pricing model is a disincentive for people who are thinking about making the switch to low carbon electricity from non-renewable energy sources, as they are then penalized for higher electricity usage
- ▶ BC Hydro should not cancel the net metering program, this too will discourage investment in clean energy investments in the building sector

"Please increase incentives and eliminate sales tax on all alternative energy installations and equipment purchases."

"I strongly support an incentive program to improve energy efficiency through retrofits as long as that program also includes training for energy auditors about adaptation to climate change and the program is designed to offer incentives that make buildings more resilient to future climate impacts in addition to more energy efficient."

[View more comments online.](#)

"Incentives are great but high electricity costs are a huge barrier to going all-electric. Force BC Hydro and Fortis to stabilize electricity prices, make sure there's adequate (and green) supply in place so that people can switch from gas without being penalized by high rates."

View more comments [online](#).

"Financial incentives make sense but there needs to be policies put in place to have people work to phase out use of natural gas instead of switching from clean electricity to natural gas. These swaps have happened in our community and the results have been an increase in overall GHG emissions."

An Energy Efficiency Labelling Requirement

Implementing an energy efficiency labelling requirement for homes and other buildings is an idea that received a lot of support, with many people suggesting that this policy action should be implemented as soon as possible. Here's what we heard:

- ▶ Energy labelling would help to increase awareness about, and demand for, good building design and construction
- ▶ It would be wise to implement an energy labelling requirement in tandem with other policy actions, such as increasing the carbon tax
- ▶ An energy labelling requirement should be supported by an investment in the employment of energy assessors, either through a new branch of the public service or through long-term contracts that provide stable employment
- ▶ Labelling should include a carbon intensity/GHG emissions metric to ensure that carbon emissions are treated explicitly (rather than as an implicit co-benefit of energy efficiency)
- ▶ Energy labelling for homes should be simple to understand
- ▶ The information included in energy labelling should also be included in real estate listings (this would likely require provincial regulation)
- ▶ People have different opinions about whether there should be separate labelling requirements for homes and large buildings, though several people suggested that it would make sense to require more information for large buildings
- ▶ People have different opinions about what information should be included on the label (some think that labels should include information about what the costs associated with running the building, while others think that labels should focus on the building components alone as utility costs and consumption data are too dependent on occupant behaviour)

Some barriers and concerns were also mentioned:

- ▶ Monitoring and enforcement is likely to be an issue, particularly in hot housing markets
- ▶ There will need to be a sufficient number of energy assessors available to do the necessary assessments within a reasonable timeframe, otherwise, the requirement could negatively impact people who are trying to sell their homes
- ▶ The current fee-for-service energy assessment model incentivizes shortcuts
- ▶ There's a risk that energy labelling will cost a lot and not be effective. Why not focus on strengthening our building codes and standards instead?



[View more comments online.](#)

Stronger Codes and Standards

The implementation of stronger codes and standards was another idea that generated significant support from those who participated in the Clean, Efficient Buildings discussion. The Province's intention to apply higher standards to new construction received strong approval, with many respondents suggesting that this transition should take place on a more aggressive timeline.

"There is a need to integrate carbon emissions into the step code and ensure that gaps between what is designed and what is built are closed."

We also received a number of suggestions about what we should be working towards with respect to stronger codes and standards. Here are some of those ideas:

- ▶ Oil and gas-heated buildings should be phased out and renewable energy systems should be required (it's not enough to focus on improving energy efficiency)
- ▶ All new homes should be built to passive house standards
- ▶ All new buildings should be equipped for electric vehicle charging
- ▶ Wood stoves and fireplaces should not be permitted in new buildings

While many people indicated that they are supportive of actions intended to strengthen the BC Building Code, a number provided suggestions to improve the current BC Energy Step Code:

- ▶ There is a need for a supporting certification program for builders
- ▶ There is a need for a framework for renovations
- ▶ There is a need for provisions or requirements for building performance monitoring

"Having just recently completed a net-zero ready residential build (shortly before the BC Energy Step Code introduction), I see the ESC as a significantly positive initiative. Kudos to the wide range of people and organizations that have contributed to its development!"

Others provided specific concerns regarding the step code:

- ▶ It does not effectively address GHG emissions and climate change
- ▶ It is limited in scope to "net-zero ready" and should include net-zero and net-zero plus
- ▶ It's not robust enough to achieve the Province's goals
- ▶ It's missing important components such as water conservation
- ▶ It encourages municipalities to set standards that they may not be ready to enforce, which exposes them to potential liability

"Stronger codes and standards for existing building renewal projects should mandate improved energy and environmental standards. These need to be issued quickly. Our strata corporation's decisions, like those of many older strata buildings, will be made in the next few years. If this window of opportunity is missed, then it will be 25-30 years before the next opportunity for retrofits will arise for these aging buildings."

People also mentioned that for stronger codes and standards to be effective, substantial training will be required to upskill tradespeople, builders, engineers, and developers. Comments relating to this topic are further explored on page 15.

[View more comments online.](#)

Additional Training to Build Capacity

Everyone who commented on this topic was supportive of the Province taking steps to improve training and capacity building in the construction industry. Many respondents also highlighted that any lack of capacity must be addressed before higher standards can be implemented effectively. Here are some of the suggestions we heard:

- ▶ Update, expand and support trade school training programs in energy efficient envelope construction
- ▶ Develop certification programs for key trades (e.g., window installers, roofers, insulation installers, drywallers, HVAC system installers)
- ▶ Create online videos to support retrofit training for builders and tradespeople (e.g., on hydronic installation, air-source heat pump systems, and construction techniques for improved airtightness)
- ▶ Align training programs with broader international certification programs
- ▶ Educate contractors to make sure they are aware of retrofit upgrades, options for new builds, and related incentive programs (if they don't know about them they won't suggest them)

In addition, we also heard that it's not just people in the construction industry that need education and training, but also the general public. Specifically, there needs to be more awareness about greener options and the associated cost savings and other benefits.



[View more comments online.](#)

Support for Low-Carbon Innovation

While many people indicated that they support measures to accelerate low-carbon innovation and market transformation in BC's construction industry, there was very limited discussion about the Province's proposed program to support low-carbon innovation. Of those who did comment on this topic, most were in favour of the initiatives presented. We also heard the following suggestions:

- ▶ Engage research institutions and professionals on low carbon building innovation by sharing information about programs and opportunities at construction association meetings (e.g., AGMs) and training institutions (e.g., BCIT)
- ▶ Follow international examples (e.g., Brussels' BatEx program, Holland's Energiesprong program)
- ▶ Support energy efficient technologies such as solar power

Among those who were not in favour of the Province taking further action to support low-carbon innovation, it was suggested that instead of doing more research we should be focusing on supporting the uptake of existing technologies through education and standardization.



[View more comments online.](#)

CLEAN GROWTH PROGRAM FOR INDUSTRY

In the Clean Growth Program for Industry intentions paper, we proposed a program with two distinct, but related, initiatives:

- ▶ An Industrial Incentive that reduces carbon-tax costs from industrial operations that meet world leading emissions benchmarks; and
- ▶ A Clean Industry Fund that invests some revenue from industrial carbon taxes directly into emission reduction projects, making traditional industries cleaner and stronger.

These initiatives work together to reduce industrial emissions while avoiding carbon leakage – the movement of industry that competes internationally to places where there's little or no price on carbon pollution.

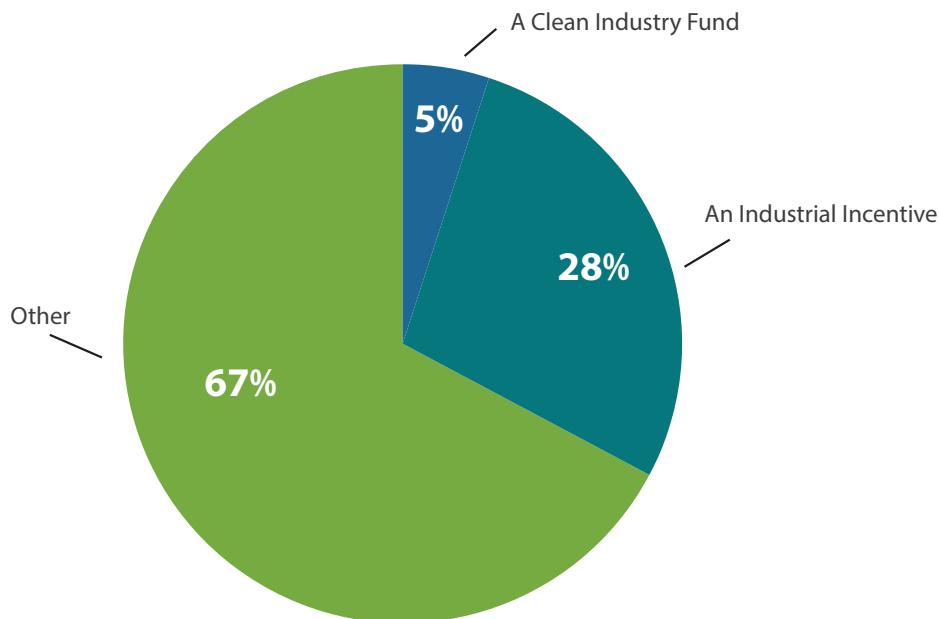
This section summarizes the feedback we heard from individuals only. It does not include views of industry and organizations, which provided most of the feedback on this subject through separate [submissions](#).

Based on input from individuals, we found that many people had comments about the climate impact of various industries (e.g., forestry, oil and gas). About one third discussed the initiatives directly. The chart below offers a breakdown of the focus of the comments received.

In addition to the public feedback covered in this report, over 150 organizations provided input through submissions.

View their direct input [online](#).

Focus of Comments Received



Among those who indicated support for the Industrial Incentive and Fund, respondents suggested that:

- ▶ Incentives should extend to smaller scale businesses
- ▶ Enforcement of standards is important
- ▶ The Clean Industry Fund should be linked to specific criteria that include phasing out the use of fossil fuels

From the respondents that expressed concern about the Incentive and Fund, we heard that:

- ▶ We should be focusing on fostering and supporting new, more sustainable industries
- ▶ Carbon tax money should not be used to support or subsidize fossil fuel extraction
- ▶ The intentions paper does not set long or short-term targets for industry



SUMMARY

The three intentions papers released in Summer 2018 were the first step in getting feedback for our CleanBC strategy. More measures to leverage B.C. advantages like our clean energy will be proposed in the future.

By integrating our work on economic, energy and climate issues – and engaging with British Columbians as we do so – we will maximize the benefits for all.

Visit [EngageBC](#) to learn more or obtain updates.