



**Esquimalt**  
**Community Climate Mitigation Plan**

# **Climate Emergency Response**

**Prepared for Township of Esquimalt**  
**Report to Council – April 27, 2020**



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## About Community Energy Association

CEA is a non-profit society with charitable status, with over 25 years working as a trusted independent advisor for local governments. CEA supports planning and research, coaching and training, and implementation projects that provide climate and energy solutions. CEA's 40+ members, including local governments and utilities, can be viewed on our website: [www.communityenergy.bc.ca](http://www.communityenergy.bc.ca)



## Summary

Esquimalt Council declared a Climate Emergency in April 2019. Community Energy Association has been hired to help the Township complete the Community Climate Mitigation Plan portion of the Climate Action Planning Project, which will outline Esquimalt's 10-year plan to address the Climate Emergency.

However, the Township also asked CEA to respond much sooner in the process with a Climate Emergency Response. This response was to identify a minimum of 5 key actions that could be implemented within the 2020 budget cycle to address Council's climate emergency motion. No public engagement was required for this portion of the work.

Actions considered for the list include both corporate and community actions with strong reduction potential which can be implemented immediately. They also have minimal budgetary implications for this year, are aligned with best practices from municipal climate leaders, and set the Township up for future climate leadership success. CEA met with Township staff from several departments to confirm that the list is appropriate for this year's work plans.

This report outlines eight key priority actions for Council to consider for investigation or implementation this year. The actions selected for this report can be undertaken immediately with minimal impacts on operating budgets but will enable substantial GHG reductions in the future. The actions include:

- **Operations:** Integrate climate action with internal processes and across all service areas, and increase cross-department collaboration on climate action.
- **Leadership:** Set Esquimalt up for carbon-neutral operations and future infrastructure funding opportunities.
- **Policy:** Start to investigate and implement policy updates for EV-ready building requirements and Energy Step Code that are consistent with other municipalities leading on climate action.
- **Outreach:** Ramp up energy retrofit outreach and incentive programs that emphasise fuel-switching from fossil fuel heating to air source heat pumps.

## Introduction

Following Council’s declaration of a Climate Emergency in April 2019, the Township of Esquimalt is undertaking a Climate Action Planning Project consisting of a Community Climate Mitigation Plan, Corporate Energy and Emissions Plan, and a Climate Adaptation Plan. The project also includes a Climate Emergency Response Plan (this report), which outlines several key actions for implementation in 2020. The overall Climate Action Plan will provide a path towards achieving a 38% reduction in community greenhouse gas (GHG) emissions from 2007 levels by 2030 and 100% reduction by 2050.

Community Energy Association (CEA) was engaged to lead the development of the Community Climate Mitigation Plan and to provide a report guiding the Climate Emergency Response. The following section of this report outlines eight key priority actions for Council to consider for investigation or implementation this year.

Following completion of the Climate Emergency Response, CEA will begin work on the Community Climate Mitigation Plan, which includes the development of GHG forecasts and modelling, further staff consultation, public engagement, and action planning. The final Plan will outline a ten-year implementation plan for actions that will enable the Township to substantively meet its 2030 GHG reduction targets.

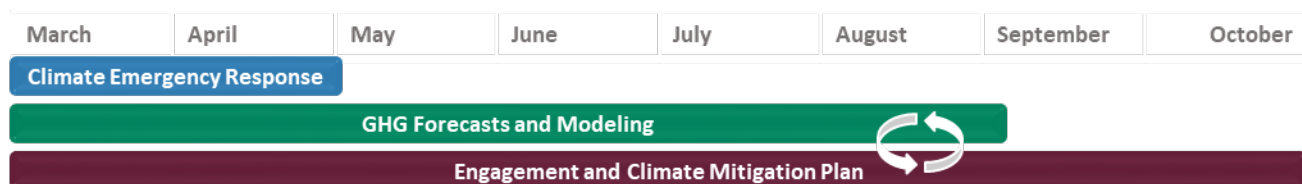
The Community Climate Mitigation Plan will address the three key sources of emissions: transportation (including electrification, mode-shift and land-use), buildings (including energy efficiency and fuel switching) and solid waste. The Plan will also address impacts of senior levels of government, and new technology. The Plan will identify co-benefits that align with other community priorities, including economic development, health, adapting to climate impacts and improving social equity and livability for all residents. The plan will highlight how investing in a low carbon future helps ensure a vibrant, livable community for people of all ages.

**Figure 1 - Esquimalt Climate Action Planning Project**

Source: *Esquimalt Community Climate Mitigation Plan RFP*



**Figure 1 - Community Climate Mitigation Plan and Climate Emergency Response Project Timeline**



The graphic on the following page summarizes the upcoming Community Climate Mitigation Plan.

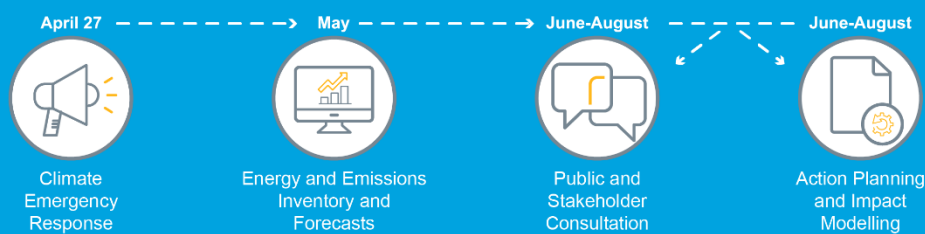
## Esquimalt is responding to the **climate emergency**: A new plan is in the works

The Plan will get us on the way to being a **100% renewable community** by 2050.

The Esquimalt **Community Climate Mitigation Plan** will carve a path towards a low carbon future: one where Esquimalt residents experience the benefits of a connected, healthy and economically prosperous community, while taking action on climate change.

Part of Esquimalt's overall Climate Action Planning Project, the Community Climate Mitigation Plan (CCMP) is an action-oriented plan focused on leveraging municipal powers to help residents, businesses and visitors save energy, emissions and money.

### The Process



### Action Plan

The Plan lays out actions using three main municipal levers:



Infrastructure

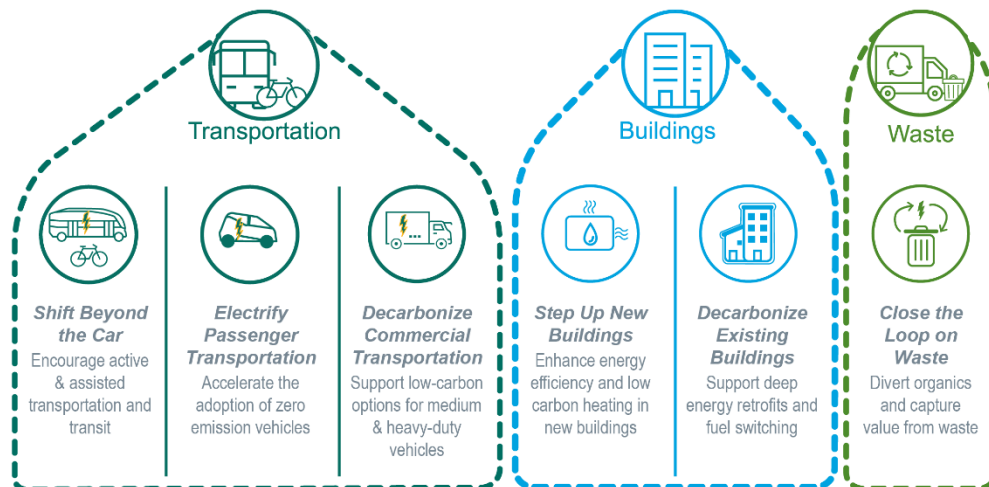


Policy and  
Regulations



Engagement  
and Outreach

The plan identifies actions to reduce community emissions from three primary sources, and considers 6 target areas:



## Key Priority Actions

The recommended key priority actions can be implemented immediately and result in significant GHG reduction between now and 2030. Also included are enabling actions that integrate a climate lens into all Township decisions, enable longer-term climate action, or show corporate leadership. The actions align with other local governments undertaking climate emergency response plans and help enable the “Big Moves” in CEA’s [BC Climate Leaders Playbook](#), which will be further explored in the Community Climate Mitigation Plan.

## Summary of Key Priority Actions

### Operations

1. Integrated Climate Action
  - a. Internal Climate Action Working Group
  - b. Council Reports
  - c. Department and Individual Work Plans
2. Dedicated Climate Action Budget

### Leadership

3. Low Carbon Operations
4. Prepare for Infrastructure Grants
  - a. Energy Retrofits of Facilities
  - b. Public Level 2 Electric Vehicle Charging Stations at Municipal Facilities
  - c. Energy and Resource Recovery Opportunities

### Policy

5. Energy Step Code with a Low Carbon Approach
6. EV-Ready Building Requirements

### Outreach

7. External Advisory Committee
8. Energy Retrofit Outreach and Heat Pump Incentive Top-Ups

## Operations

### 1. Integrated Climate Action

Integrating climate action considerations into Esquimalt decision-making processes is foundational to future climate leadership. Implementing a climate lens approach means considering the impact of a decision or plan on GHG emissions, as well as thinking about how a changing climate impacts the result of the decision (such as an infrastructure project, new neighbourhood development, or community asset).

One way that local governments can implement a climate lens is by integrating climate considerations into existing processes, such as strategic planning and the annual budgeting framework. This is a process rather than a single event, however, several key actions can be started immediately to increase collaboration across departments, spread out ownership of various climate action initiatives, integrate climate action into departmental work plans, and update Council reports to reflect climate emergency response priorities.

#### a. Internal Climate Action Working Group

Esquimalt does not have a dedicated Climate Action/Sustainability Department, however several departments are already responsible for overseeing various aspects of the Township's climate action initiatives. Formalizing an internal Climate Action Working Group, consisting of representatives from multiple departments, will facilitate collaboration across departments, help identify new opportunities, and oversee the implementation of the Climate Mitigation Plan. Significantly, the group can help embed climate action into other plans, strategies, and policies, including strategic and financial planning. The terms of reference for the committee, including representation, time-commitment and exact role can be determined collaboratively upon formation. Likely the group will meet more frequently during Plan development, and then annually to oversee Plan implementation.

#### b. Council Reports

The Working Group can oversee an update to Council report templates for applicable departments including climate action implications of decisions. Various departments would require unique frameworks to guide the recommendations and staff training would need to be provided to ensure consistent uptake of the updated report section. Reports related to development projects require the most robust framework, and could include a scoring matrix that considers future GHG emissions or reductions associated with the project and resilience implications. Reports related to municipal procurement could also include an assessment of climate implications.

#### c. Department and Individual Work Plans

Each department is responsible for some aspects of climate action, which can be highlighted and recognized in the annual department work plans. Individual staff members can have climate action responsibilities included in their full job descriptions, and innovating new ideas can be recognized during performance reviews.

- **Recommendation:** Form a cross-departmental Climate Action Working Group that will recommend amendments to Council report templates and discuss format for including climate action responsibilities on department and individual work plans.

## 2. Dedicated Climate Action Budget

Each year the Township receives a rebate equivalent to the carbon tax spent on municipal operations (ie. building natural gas consumption and fueling fleet vehicles). This money goes into the Sustainability Reserve Fund, which funds municipal climate action initiatives. In the past, money was allocated from the reserve fund for specific initiatives during the budget process. We recommend releasing a modest portion (we recommend \$20,000) of this reserve fund each year to enable staff to take advantage of new opportunities as they arise through the year, including responding to funding opportunities by undertaking feasibility studies, leveraging external grant funding, participating in collaborative engagement programs, and other opportunities. Larger requests would still be approved by Council.

- **Recommendation:** Allocate \$20,000 from the Sustainability Reserve Fund to be used as needed to support Plan implementation and opportunities as they arise.

## Leadership

### 3. Low Carbon Operations

Esquimalt has already committed to striving towards carbon-neutral operations. This key priority action is a recommendation to create a clear pathway to meeting that goal, interim targets for specific asset categories (such as electrifying the passenger vehicle fleet and retrofitting municipal buildings), and supportive policies to guide procurement decisions.

This action is about reducing the corporate GHG footprint, which is reported each year as a Climate Action Charter requirement. This action, if conducted strategically, can substantially reduce municipal energy costs, and be used to leverage external grant funding. Creating a clear pathway to carbon neutrality would demonstrate the Township is leading by example. The progress that the Township makes, and the money it saves, can be promoted to the community to help stimulate further community-wide reductions.

- **Recommendation:** Develop policy statements to guide the Township towards carbon neutral operations, including through fleet renewal policies, green building policy, facility retrofit strategy, and general procurement policies.

### 4. Prepare for Infrastructure Grants

The Government of Canada's Investing In Canada Infrastructure Program (ICIP) is a 12 year, \$180 billion initiative aimed at improving Canadian infrastructure in several categories, including green infrastructure. Funding is allocated to local governments through cost-sharing agreements between the Provincial and Federal Governments, as was the case with the first intake of the CleanBC Communities Fund (CCF). The CCF supported cost-sharing for public infrastructure projects that meet one or more of the program objectives to support (1) the management of renewable energy, (2) access to clean energy transportation, (3) improved energy efficiency of buildings, and (4) the generation of clean energy. Any projects applying to the various ICIP streams require the completion of climate lens assessments.

We anticipate significant Federal and Provincial infrastructure spending being made available to communities in 2020 and 2021. Esquimalt can get ready for these funding programs by assessing opportunities in three main categories:



**a. Energy Retrofits of Facilities**

The Township has already taken action to reduce the energy use at its recreation facilities and is striving for net-zero energy at the new planned building in Esquimalt Gorge Park. Considerable reductions are needed at all municipal facilities to reach the zero-emissions goal. To leverage external funding, opportunities could be identified for further GHG and financial savings, beyond what has already been achieved. To prepare for potential funding opportunities, the Township can commission energy audits at all facilities that do not have a recent audit and start to prioritize potential projects based on energy, emissions, and cost savings. The Township could show additional leadership by scoping out a deep energy retrofit (>50% energy reduction and fuel switching) at a major facility.

**b. Public Level 2 Electric Vehicle (EV) Charging Stations at Municipal Facilities**

The Township currently owns and operates one level 2 public charging station that is also used for charging fleet vehicles. An EV strategy will be investigated in the Community Climate Mitigation Plan, however, staff could investigate the demand and capacity for the addition of new public charging stations at municipal facilities and public areas. Additional stations will help advance the electrification of transportation through private EV purchases. This is a key component of any climate mitigation plan and can also facilitate the conversion of municipal fleet vehicles to EVs.

**c. Energy and Resource Recovery Opportunities**

As part of the Township's Integrated Resource Management Study initiated in 2019, there may be opportunities identified for energy and resource recovery from waste streams. Once this study is complete, the Township could commission feasibility studies for specific resource recovery projects and prepare for Infrastructure funding opportunities. There are examples of projects from right across BC. For more information, see [www.closingtheloop.ca](http://www.closingtheloop.ca).

→ **Recommendation:** Monitor Federal and Provincial funding announcements and investigate potential projects for funding applications.

**Policy****5. Energy Step Code with a Low Carbon Approach**

Over 30 BC local and regional governments have adopted the Energy Step Code in their building bylaws, including the Capital Regional District, City of Victoria, District of Oak Bay, District of Saanich, District of North Saanich, and District of Central Saanich. The Energy Step Code is an optional compliance path in the BC Building code that establishes progressive energy performance requirements (steps) for new buildings, with the highest step representing net-zero energy ready construction. The CleanBC plan sets a target for all new buildings to be net-zero energy ready by 2032, with interim targets for 2022 and 2027.

While the Step Code is an important tool to drive energy efficient new construction, it does not necessarily achieve the low GHG emissions required to meet ambitious climate action targets. Highly energy efficient buildings heated with natural gas still emit more GHGs than less efficient buildings heated with BC's clean electricity (efficiency is still very important for electrically heated buildings to keep operating costs low). In the absence of explicit GHG metrics in the Step Code, several local governments are adopting or considering a low-carbon approach to their Step Code implementation strategies. The typical approach is a "Two Step" approach

that includes a relaxation clause in their Building Bylaws' Energy Step Code requirements. This approach requires that projects achieve either a higher step or a lower step when buildings use low-carbon energy systems.

- **Recommendation:** Investigate an Energy Step Code implementation strategy for Esquimalt that utilizes a “Two Step” approach to encourage low-carbon energy systems. The strategy would include timelines for the adoption of applicable steps for various building types. CEA can help develop an Energy Step Code implementation strategy with external funding.

## 6. EV-Ready Building Requirements

Zero-emission vehicles (ZEVs) are clean, efficient, and cost-effective. In British Columbia, where at least 94% of all electricity is renewable and non-emitting, electric vehicles (EVs) are already a viable low carbon option.

Esquimalt can make zero-emission vehicles an easier choice for residents and businesses by delivering community outreach, investing in infrastructure, enacting supportive policies, and by engaging with companies and organizations that operate large fleets, such as car-sharing and ride-hailing providers. All of these opportunities will be explored in the final Community Climate Mitigation Plan.

Adopting EV-ready building requirements for new buildings is a straightforward bylaw update that Esquimalt can undertake in the short-term. Requiring capacity for sufficient charging infrastructure in new buildings can “future-proof” those buildings and ensure current and future EV drivers have plenty of places to plug in. Ensuring adequate capacity now is significantly cheaper than retrofitting parking garages later.

Several local governments currently have EV-ready building requirements for new residential buildings. Typically these require builders ensure that a certain percentage of parking spaces have, at minimum, adequate electrical capacity, a dedicated circuit, and conduit run to the stall. Some local governments also require the wiring and outlet. Regulations rarely require a complete charging station at each space.

- **Recommendation:** Consider updating the Parking Bylaw to include an electric vehicle supply equipment (EVSE) requirement for all new residential buildings. Other local governments are working on establishing best practices for similar charging requirements for commercial buildings, and these can be adopted at a later date. CEA can support staff with best practices in bylaw design.

## Outreach and Incentives

### 7. External Advisory Committee

A successful Community Climate Mitigation Plan requires support from the community and active involvement from residents, businesses, major employers, and community groups. Establishing an external advisory body helps ensure that climate action is not just municipally led but driven by external partners, and helps bring additional ideas and opportunities in to the community. Esquimalt currently has an Environmental Advisory Committee that could act as the advisory body for the Climate Mitigation Plan development and implementation in future years. Esquimalt Climate Organizers (ECO) is an active community group that could offer additional advisory capacity and/or members from ECO could join the Environmental Advisory Committee.

- **Recommendation:** Formally recognize the Environmental Advisory Committee as the external advisory body for the Climate Mitigation Plan with an updated Terms of Reference. Reach out to members of Esquimalt Climate Organizers for help with community engagement and consultation on the Plan.

## 8. Energy Retrofit Outreach and Heat Pump Incentive Top-Ups

Most of the buildings that will exist in 2030 and 2050 already exist today, so for Esquimalt to meet its GHG reduction targets, the existing building stock needs to be retrofitted for substantial GHG reductions. Many of these buildings will have relatively cost-effective measures to reduce emissions, particularly with regards to energy efficiency retrofits and heat pump retrofits to homes that use heating oil or propane as their primary heating source.

Esquimalt is already partnering with City Green, the CRD and neighbouring municipalities on a heat pump outreach program, and has an opportunity to ramp up this initiative with increased outreach and incentive top-ups. CEA is also running a similar project in Metro Vancouver, and has run several energy efficiency retrofit campaigns.

In addition to driving GHG reductions, this initiative would also have the benefit of excellent potential for creating local jobs. Also, to assist with economic recovery higher levels of government are considering funding energy efficiency retrofit activity, and the Federation of Canadian Municipalities has recently started a new stream of the Green Municipal Fund (the Community Efficiency Financing stream) that will match funds up to 80%. Therefore there is the potential to use the municipal budget to leverage considerable sources of external funding.

Homes that use heating oil are estimated (with current draft inventory) to produce about 10% of Esquimalt's community greenhouse gas emissions. Focusing on these homes is an excellent opportunity as these homes will also save considerable amounts of money in reduced energy bills, and there will also be local environmental benefits.

- **Recommendation:** Expand the current retrofit outreach initiative with City Green to design and deliver energy efficiency and heat pump retrofit outreach and incentives top-ups. Consider opportunities to leverage external sources of funding from the GMF Community Efficiency Financing stream. CEA can help with scoping a potential program expansion and/or regional collaboration in partnership with City Green.

## Summary Table

This table summarizes the eight key priority actions and the rationale for each. Several of the actions enable future GHG reductions, while others result in community GHG reductions once implemented. These measurable actions represent a 9-16% possible GHG reduction towards the 38% by 2030 target. The Community Climate Mitigation Plan will outline further actions that will contribute to meeting the 2030 target.

Category	Key Priority Action	Rationale	Range of GHG Reductions in 2030	Cost/Budget Implications
Operations	1 – Integrated Climate Action	Helps integrate climate action into municipal processes, ensures climate implications are considered in decision-making, increases internal collaboration, and ensures departmental ownership and oversight of Plan implementation	Distributed across future actions	Staff time for Working Group and template development
	2 – Dedicated Climate Action Budget	Ensures readiness to respond to climate action opportunities throughout the budget year	Distributed across future actions	Budget already exists in the Sustainability Reserve Fund
Leadership	3 – Low-Carbon Operations	Reduce corporate GHG footprint for Climate Action Charter reporting, reduce municipal operations costs, and lead by example for community GHG reductions	45% of corporate emissions	Significant capital outlay, but will save money in operations
	4 – Infrastructure Grant-Readiness	Prepare to apply for upcoming senior government infrastructure grants by shortlisting opportunities that result in GHG reductions	Enables future reductions	Staff time to investigate opportunities, budget for feasibility studies
Policy	5 – Energy Step Code with a Low Carbon Approach	Helps the industry prepare for upcoming Building Code changes while accelerating low carbon new buildings	2-3% 1,600-3,200 tonnes	Staff time for industry consultation
	6 – EV-Ready Building Requirements	Future-proofs new buildings for a widespread shift towards electric vehicles	2-4% 2,200-4,400 tonnes	Staff time for industry consultation
Outreach & Incentives	7 – External Advisory Committee	Helps ensure that climate action is not just municipally led but driven by external partners, helps bring additional ideas and opportunities in to the community	Distributed across future actions	Staff time and refreshments
	8 – Energy Retrofit Outreach and Heat Pump Incentive Top-Ups	Reduces emissions in existing building stock, excellent potential for local jobs, potential to use municipal budget to leverage considerable external funding	5-9% 4,600-9,300 tonnes	Budget for incentives, promotion, capacity building, and other activities