

# Central Saanich Climate Leadership Plan

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Second DRAFT

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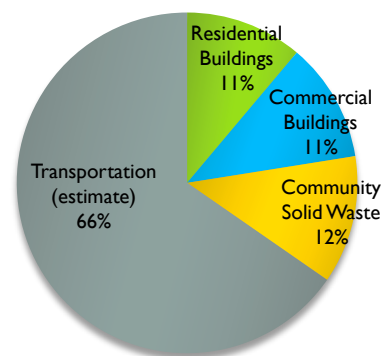
### Summary

Our climate is changing, with some changes already noticeable, and the changes are projected to intensify over the coming decades. In our region, we can expect more extreme heat days, longer dry spells in summer, more precipitation in fall, winter and spring, and warmer winters with more intense weather events. There are many implications of these changes, potentially impacting our health, infrastructure, water supply, agriculture, ecosystems and species and marine environments. The global scientific community agrees that the more we can reduce our total greenhouse gas (GHG) emissions in the short term, the less intense these impacts will be over time. We are at a turning point in history and we need to act while the costs, while still significant, are manageable. The cost of inaction is greater in the long run.

#### GHG Emissions in Central Saanich

In Central Saanich, the primary sources of community-scale GHG emissions result from: **transportation** (burning gasoline, diesel and propane in vehicles), **buildings** (using electricity, natural gas, heating oil and propane), and **solid waste** (throwing organic garbage into our landfill that releases methane).

In 2007, the community emitted an estimated 85,000 tonnes of GHG emissions. Since 2007, emissions from our Buildings have gone down modestly, and emissions from Solid Waste have gone significantly (over half!). We do not have updated data about our transportation emissions, but indications are that we have not made significant shifts in our transportation habits. All told, this means we are off to a good start, but we have a lot of work left to do to achieve our climate goals.



#### A vision for a low carbon community

Through this plan, the District of Central Saanich is **renewing its commitment to substantially reduce GHG emissions** in community-scale and municipal operations by 2050. This plan also highlights the importance of **preparing the District and community members for changes to our climate**. The following goals demonstrate our deep commitment to climate leadership in Central Saanich:

- Goal 1: 80% less community-scale GHG emissions by 2050, relative to 2007
- Goal 2: 100% renewable energy community-wide by 2050
- Goal 3: 90% less GHG emissions from municipal operations by 2050, relative to 2007

#### Actions and Implementation

This plan outlines key objectives and actions in five areas: Transportation, Buildings, Solid Waste, Municipal Operations and Adaptation to Climate Change, focusing on actions that are within the realm of responsibility and influence of the District.

We acknowledge that successfully implementing this plan will involve dedicated staff time and resources. However, we cannot reach our goals in isolation. Making significant shifts in our energy use and sources will require action by all levels of government, residents, businesses and community organizations.

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### Context

The District of Central Saanich has been taking steps to reduce climate impacts over the last decade, starting in 2008 with adopting the *Central Saanich Energy Plan – An Action Plan to Reduce Energy Consumption and Greenhouse Gas Emissions in Our Community*. The 2008 plan provided a baseline of energy use and resulting emissions in our community, set reduction targets, and identified 27 actions to support the targets. Ten years later, the District has reflected on the progress made to date and refreshed the plan to guide climate action planning, programs and activities in the community for the next 10 years. This document is the Central Saanich Climate Leadership Plan.

### Climate projections and impacts

Our climate is changing and addressing the changes is one of the most critical issues of our time. Some of these changes are already noticeable with more frequent extreme-weather events (droughts, floods, heat waves, fires); these changes are projected to increase in severity and duration of events over the coming decades. The Capital Regional District's climate projection report anticipates more extreme heat days and longer dry spells in summer, more precipitation in fall, winter and spring, and warmer winters with more intense extreme weather events, and rising sea levels.<sup>1</sup>

A changing climate has many implications in our region – affecting our health, infrastructure, water supply, agriculture, ecosystems and species, and marine environments. The global scientific community agrees that the more we reduce our total greenhouse gas (GHG) emissions in the short term, the less intense these climate changes will be over time.

*“The costs of stabilising the climate are significant but manageable; delay would be dangerous and much more costly.”<sup>2</sup>*

The costs of inaction exceed the cost of action, which is currently estimated to be 1% of global GDP, if strong action is taken now. In addition, there are significant co-benefits to climate action, for example, improved air quality, healthier active lifestyles, reduced operating costs, and potential local economic opportunities.

### Global, national and provincial action

In response, governments around the globe have set aggressive targets to reduce GHG emissions – collectively aiming to limit global temperature rise below 2 degrees Celsius this century<sup>3</sup>. Starting in 2007, when BC's first climate targets were established, our provincial emissions generally went down until 2010, but since then they have started rising again. In 2016, both the Federal and BC governments released new climate action plans that commit Canada and BC to accelerated climate action. Both of these plans recognize we have a lot of work to do, and that all levels of governments need to work together with citizens and businesses to meet these targets.

The BC government recently announced new targets: 40% reduction in community-wide GHG emissions by 2030, 60% reduction by 2040 and 80% reduction by 2050 (all relative to emissions in 2007), and will release a new climate action plan in Fall 2018 that details how these targets will be met. Canada has committed to the Paris agreement, and released the Pan-Canadian Framework on Clean Growth and Climate Change outlining how we will achieve Canada's targets.

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<sup>1</sup> [https://www.crd.bc.ca/docs/default-source/climate-action-pdf/reports/2017-07-17\\_climateprojectionsforthecapitalregion\\_final.pdf](https://www.crd.bc.ca/docs/default-source/climate-action-pdf/reports/2017-07-17_climateprojectionsforthecapitalregion_final.pdf)

<sup>2</sup> Stern Review, The Economics of Climate Change, 2007. [http://unionsforenergydemocracy.org/wp-content/uploads/2015/08/sternreview\\_report\\_complete.pdf](http://unionsforenergydemocracy.org/wp-content/uploads/2015/08/sternreview_report_complete.pdf)

<sup>3</sup> Compared to pre-industrial temperatures.

## GHG emissions in Central Saanich

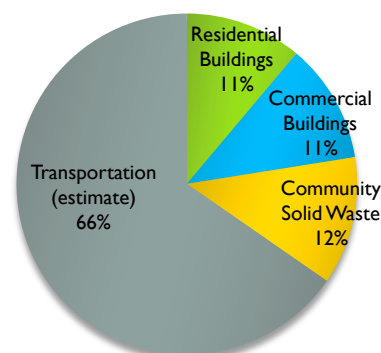
In Central Saanich, the primary sources of community-scale GHG emissions are:

- **Transportation:** burning gasoline, diesel and propane in vehicles
- **Buildings:** using electricity, natural gas, heating oil and propane in homes and buildings
- **Waste:** throwing organic garbage into our landfill that releases methane

Because electricity generated in BC is almost exclusively hydropower, the GHG emissions associated with electricity use in our community are very low. As a result, almost all of our energy-based emissions result from fossil fuels: gasoline, diesel, natural gas, heating oil and propane.

### Baseline Community Emissions (2007)

In 2007, the community emitted an estimated 85,000 tonnes of GHG emissions.<sup>4</sup> Approximately 66% of these emissions resulted from fuels used in our vehicles (personal and commercial), 22% result from powering and heating our buildings, and approximately 12% resulted from organic waste breaking down in the landfill.

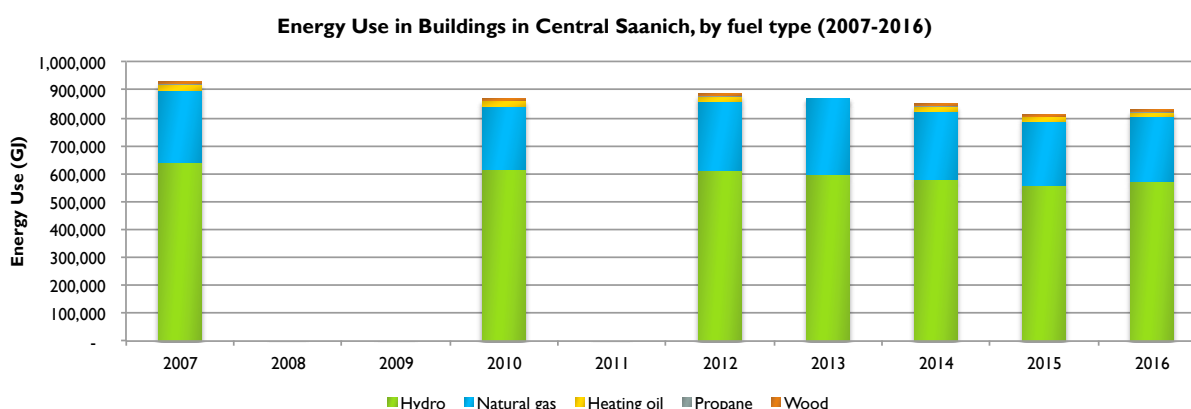


### Our Progress to Date (2007 – 2017)

The Central Saanich OCP contains a target to reduce emissions 80% by 2050 (matching the long-term provincial target), relative to 2007. Based on the data released by the Province for Central Saanich, combined with indicators from our Census data, Central Saanich emissions are beginning to go down, but a lot more work is needed in all areas: transportation, buildings and waste to achieve our target.

### Buildings

Reducing energy use in existing buildings—most of which will still be around for the next few decades—in addition to building more efficient new buildings are another key to reducing our emissions. Based on utility data collected by the Province, buildings in Central Saanich use approximately 10% less energy in 2016 relative to 2007.



<sup>4</sup> Community Energy and Emissions Inventories were prepared by the Province for 2007, 2010 and 2012. Building and Solid Waste data continues to be released (to 2016), while the transportation component of the inventories are currently being reviewed. This baseline represents a preliminary estimate of emissions that will need to be revised when the Province releases updated data for transportation.

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Over the last 10 years, the District has implemented numerous initiatives that support reduced building and solid waste emissions in the community, including:

- The District requires **new homes that go through a rezoning process to meet a minimum of Energuide 80 rating**, making these new buildings more energy efficient than the Building Code.
- In 2017, the District established a program to provide a **30% discount on Development Cost Charge** to incent developments that are affordable, have lower energy use or lower GHG emissions.
- In 2015, the District launched the **ReAction program to provide financial incentives for energy audits and upgrades** to community groups leasing District-owned buildings.

*In order to reach our targets, however, the community needs to make more significant shifts toward net-zero energy new buildings, and retrofit existing buildings to be much more energy efficient.*

### Transportation

There are a number of ways to reduce our transportation emissions, for example: creating more compact complete communities, switching some vehicle trips to other modes (walking, cycling, taking transit – collectively referred to as "active transportation"), using more efficient or low emission vehicles, and making shorter or consolidated vehicle trips. Census data shows that Central Saanich is creating more compact residential neighbourhoods: in 1996 less than 30% of homes were multi-family dwellings, and as of 2016, 45% were multi-family dwellings. We are also gradually shifting toward more active transportation trips when commuting, increasing from 12% to 13% of commuting trips by active modes from 1996 to 2016.<sup>5</sup>

Over the last 10 years, the District has implemented numerous initiatives that support reduced transportation emissions in the community, including:

- The **majority of new growth Central Saanich has remained within the Urban Settlement Area** – preserving our natural and agricultural areas while creating a more compact core.
- The District developed a plan for **protecting industrial land** in the Keating Business District to preserve local employment opportunities, and to ensure adequate transit for this area.
- The District is investing in infrastructure improvements, including walking paths, pedestrian crossings, bike lanes and transit stops (1 to 3 are upgraded annually to improve shelters and accessibility). The community currently has approximately **15 kilometres of bike lanes**.
- In 2012, the District participated in and supported the Regional Pedestrian and Cycling Master Plan developed by the CRD.
- In 2012, the District installed **two electric-vehicle-charging stations** for public use.

*In order to reach our targets, however, the community needs to make more significant shifts to active transportation and/or zero or very low emission vehicles, such as electric vehicles.*

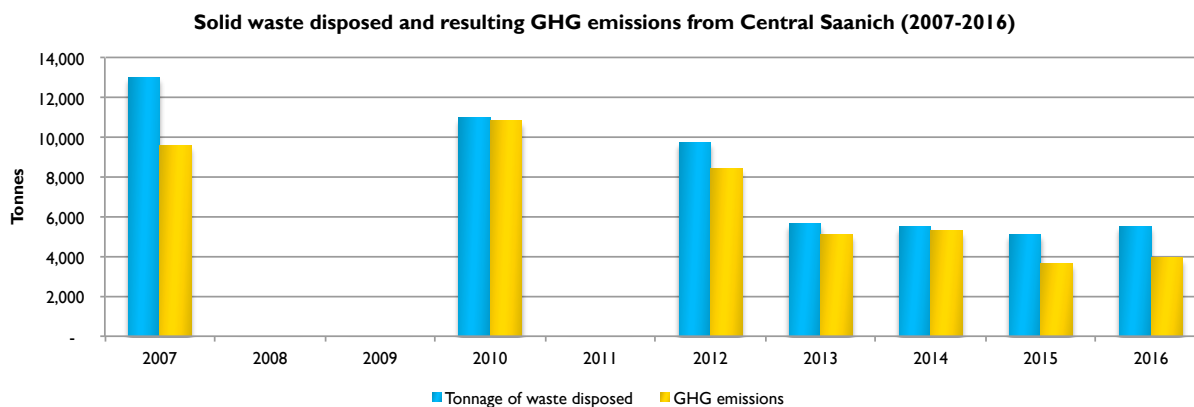
### Solid Waste

We have made substantial reductions in the emissions coming from solid waste disposed – through a combination of initiatives: diverting yard and food waste from going to the landfill (5,400 to 7,400 tonnes diverted annually 2013-2015), and expanding the landfill gas capture system to reduce the total GHGs being released from landfill waste.

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<sup>5</sup> Statistics Canada Census data.

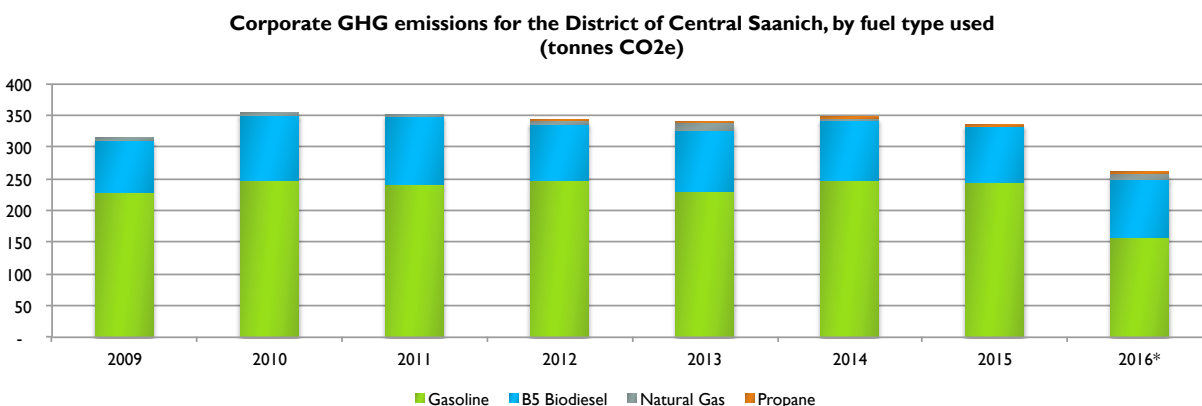
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*This is a great start, but more can be accomplished with further waste reduction, diversion and gas capture initiatives.*

### Municipal Operations

The District has been tracking and reporting emissions resulting from municipal operations (community buildings, fleet vehicles, and contracted vehicles and equipment) since 2009, and **the District has been carbon neutral in its operations since 2015**. The majority of corporate emissions result from fuels used in the District fleet vehicles. In 2017, total corporate emissions were 287.5 tonnes CO<sub>2</sub>e, a small fraction of community emissions.



*\*Note: In 2016 the District removed fuel use by police vehicles from the inventory, as these are not in scope for municipal inventories.*

Actions taken by the District include:

- Using a B5 biodiesel blend in all diesel vehicles, and biodegradable hydraulic oil.
- Building a LEED Silver Fire Station 2, with geothermal and solar hot water technologies.
- Completing energy efficiency upgrades to facilities.
- Implementing small-scale demonstration projects to conserve energy and reduce emissions.
- Selecting the most fuel efficient and right sized vehicles for the job.

*The municipality can continue to reduce emissions by shifting to more efficient, low emission vehicles.*

*The good news: Central Saanich is on a reduction path; however, we need to continue to work on climate action to ensure we achieve our desired results!*

## A vision for a low carbon community

On a global scale, experts estimate our current path of carbon reductions will exhaust the carbon budget in less than 20 years, and that achieving significant reductions in emissions will rely heavily on two core strategies: improving energy efficiency and transitioning to renewable energy. Experts also advise that achieving significant emission reductions earlier will be more economically, socially and environmentally beneficial than the current path we are on.<sup>6</sup>

This Climate Leadership Plan renews the District of Central Saanich's commitment to work with other levels of government, residents, businesses and community groups to advance initiatives that improve **energy efficiency**, increase the use of **renewable energy** and reduce GHG emissions from activities across the community. We will shift our building stock to be much more energy efficient, and seek out renewable energy sources (grid hydropower, site and neighbourhood-scale solar and wind, renewable natural gas). We will shift to use active transportation, and seek out renewable energy sources for our remaining transportation needs (electric vehicles, biofuels).

The District also commits to continued efforts to **demonstrate leadership in municipal operations** through efficiency, renewable energy and emission reductions initiatives. The District will seek opportunities to showcase projects that help raise the profile of energy efficiency and renewable energy (e.g. solar demonstration projects), and help build capacity in this area.

This plan also highlights the importance of **preparing for changes to the climate** that are already happening. It will be important for the District and community members to understand the range of potential changes, and prepare for those changes to minimize the impacts and maximize potential benefits.

This vision and plan builds on the original community plan by incorporating new emissions data, updated global, national and provincial context, evolving leading municipal practices, and input obtained from District staff, Council and the public through online engagement and public open house formats. See Appendix A for a summary of input received. The plan also outlines three key goals to guide the District's efforts with respect to climate leadership – two goals address community-scale activities, and one goal addresses municipal operations:

### **Goal 1: 80% less community-scale GHG emissions by 2050, relative to 2007**

The Central Saanich Official Community Plan includes a target to reduce community-scale GHG emissions by 80% by 2050, relative to 2007. This plan renews this commitment.

### **Goal 2: 100% renewable energy community-wide by 2050**

In 2007, approximately 38% of all energy used community-wide in Central Saanich was from renewable sources. By 2050, the community will aim to obtain all of its energy from renewable sources.

### **Goal 3: 90% less GHG emissions from municipal operations by 2050, relative to 2007**

In Central Saanich, the GHG emissions from municipal operations almost exclusively result from fleet fuels – gasoline and diesel (over 96% of District emissions). Very small amounts of natural gas and propane use in buildings make up the remaining emissions (less than 4%). The District is committed to decarbonizing the fleet and achieving a 90% reduction in emissions by 2050.

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<sup>6</sup> IRENA Global Energy Transformation: A Roadmap to 2050

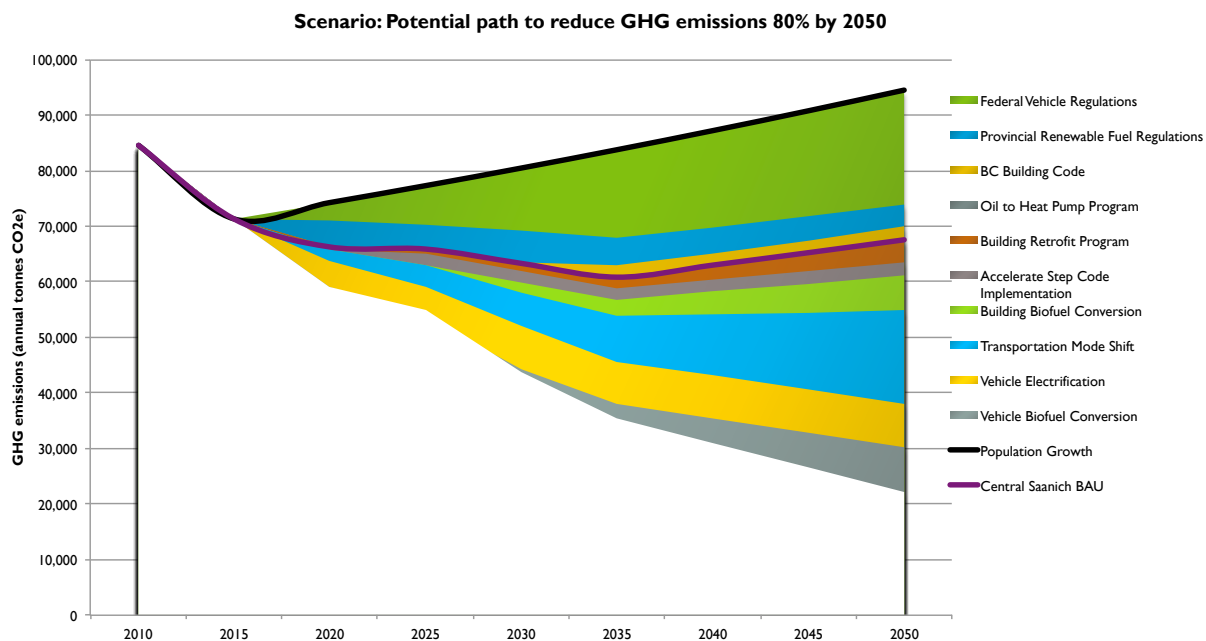


## A scenario for achieving our community-scale goals (#1 and #2)

Achieving such significant reductions in our emissions will require action from all levels of government, as well as citizens, businesses, and partner organizations. The precise path that will get us to this reduction target is still unknown. However, based on our knowledge of where our emissions currently come from and estimates of the impact of senior government regulations, we can chart out a scenario that demonstrates one path for reaching our target. The following **scenario demonstrates one path toward meeting the community goals** for buildings and transportation that includes:

- Estimated emission reductions that will happen because of Federal and Provincial regulations<sup>7</sup>
- Building emission reductions resulting from:
  - 100% of remaining oil heaters are converted to heat pumps by 2030
  - 100% of new construction is net-zero ready starting in 2025 (BC Energy Step Code 5)
  - ~3% of our existing buildings are renovated per year to use 50% less energy
  - All remaining building fuel use transitions to renewable natural gas by 2050
- Transportation emission reductions resulting from:
  - 50% of our trips are made with active transportation by 2050
  - 50% of our personal vehicle fleet is electric by 2050
  - All commercial vehicles transition to biofuels by 2050

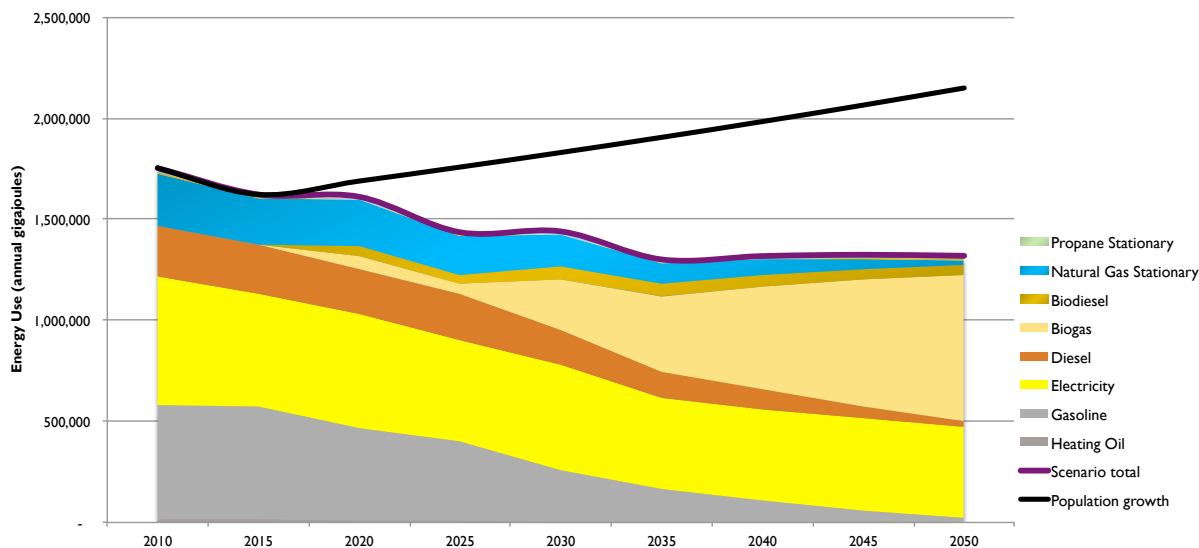
In addition to the Building and Transportation efforts, the District will continue to work with the Capital Regional District to achieve significant reductions in emissions from solid waste through a combination of waste reduction, diversion, and landfill gas capture. The following graphs depict the transition for GHG emissions and renewable energy:



<sup>7</sup> Federal vehicle emission regulations, Provincial renewable content in fuels, and Provincial Building Code energy efficiency improvements toward net-zero construction by 2032

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Scenario: Potential path to transition to renewable energy by 2050



### A scenario for achieving our municipal operations goal (#3)

One example scenario for achieving the municipal operations goal includes a combination of electrification (where suitable to the application and technology available, and for other applications switching to biofuels / renewable natural gas, with natural gas as a transition fuel):

- 100% conversion of light-duty fleet to electric by 2030 (where suitable technology is available).
- 100% conversion of remaining fleet to natural gas or biodiesel by 2035.
- 100% shift to biofuels (renewable natural gas or biodiesel) for remaining fleet by 2050.

### Principles

This plan identifies actions within the District of Central Saanich's realm of authority and influence to support the transition to renewable energy and low emissions. However, the District cannot achieve this level of change by acting in isolation; concerted and coordinated effort by all levels of government, in partnership with community members and industry will be necessary to achieve the desired outcomes. The District's plan includes the following principles:

- Take early action in District areas of authority or influence
- Advocate for action where other authorities have responsibility
- Be nimble and opportunistic by seeking funding and partnership opportunities that align with our vision, while focusing the municipality's resources
- Maximize local value creation by supporting education, training, capacity building
- Use a climate lens to evaluate significant expenditures by considering both emission reductions (mitigation) and climate adaptation implications
- Monitor and report progress with clear, concise communication to improve transparency and accountability

## Actions to achieve our goals

As outlined in the scenario in the previous section, significant shifts are needed in our transportation, buildings and solid waste profiles if we are to meet our goals. The most significant shifts for community emissions in Central Saanich will focus on improving energy efficiency and increasing renewable energy in our transportation and buildings sectors.

The Federal and BC governments have implemented regulations that will affect future GHG emissions and improve the efficiency of and reduce emissions from new vehicles and new buildings, and have developed programs to support further reductions. While these programs and regulations will help reduce community-scale emissions in Central Saanich, it is not sufficient to meet the target of 80% reduction in GHG emission by 2050, and further actions are required. The majority of emissions are from transportation but buildings are long lasting infrastructure so must be addressed now. This section outlines actions for the District of Central Saanich to implement in support of our long-term goals.

## Buildings (Residential and Commercial)

### Objectives:

- To **develop net-zero ready buildings in new construction** that have low energy needs (lowering utility costs and emissions), are more comfortable, and are well-suited to our changing climate.
- To **substantially improve the energy efficiency of existing buildings** through cost-effective building retrofits that reduce utility costs, improve comfort, and are adapted to our changing climate.

### Actions:

1. **Energy efficient new buildings:** Develop and implement a BC Energy Step Code adoption strategy that goes beyond the base BC Building Code, beginning with the lower steps (1-3). Monitor implementation and increase requirements over time as industry builds capacity and costs come down – aiming to implement the upper steps (4-5) by 2025.

Support development of buildings that go beyond the required steps by adjusting development cost charge reductions, or providing other incentives such as building permit rebates.

2. **Energy efficient retrofits:** Establish a Deep Green Retrofits program with a target of having 2 to 3% of existing buildings (residential and commercial) undertake energy efficiency retrofits annually. Typical renovation rates are closer to 1% per year. Partnerships with utilities, senior governments and other agencies will be important to provide incentives that are sufficient to substantially increase the rate of retrofits occurring.

In addition to external funding, the District can also evaluate local funding opportunities such as building permit rebates, and implementing a broad green development fee that gets re-distributed to these initiatives. As a first step, the District can reimburse the cost of a building energy audit and follow-up coaching to support the selection of the most cost-effective upgrades.

Consider incorporating water-saving retrofits into the same program, supporting climate change adaptation for anticipated hotter, drier summers.

3. **Connect with existing programs:** Actively connect community members with existing provincial, utility or other programs such as the Oil to Heat Pump Incentive Program by raising awareness through marketing, social media, and community events. Investigate the potential to provide “top-up”

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incentives for specific outcomes – for example, an incentive that facilitate a 100% shift away from heating oil in the community.

4. **Support the transition to biofuels:** (including renewable natural gas) Collaborate with the Capital Regional District, neighbouring municipalities, researchers and local industry to identify and support opportunities to generate, distribute and/or purchase renewable natural gas in the region. Potential sources could include anaerobic digestion of municipal and/or agricultural organic waste, and gasification of forestry by-products.
5. **District energy system:** Explore the development of a low carbon district energy system for the Keating Industrial area.

## Transportation and Land Use

### Objectives:

- To make significant shifts toward active modes of transportation that support a healthy, safe and vibrant community
- To transition toward electric and biofuel sources of energy for all vehicle transportation needs, making use of cleaner fossil fuels in the shorter-term to support the transition

### Actions:

1. **Compact and complete community:** Continue to focus development in the Urban Settlement Areas through residential infill and densification. Furthermore, support opportunities to incorporate local business areas and other amenities close to residential infill with the goal of increasing the number of homes within 400 metres of: work places, transit stops, bike paths, grocery stores, elementary schools, and parks. Compact and complete communities encourage trips on foot, by bicycle or transit rather than car.

Identify additional opportunities to support reduced vehicle travel, including supporting home-based businesses with appropriate bylaws, and supporting neighbourhood commercial within neighbourhoods located within urban settlement areas. Incorporate low carbon considerations in new infrastructure designs (e.g. safe routes for all modes, roundabouts that reduce idling).

2. **Active transportation plan:** Create an active transportation plan that outlines a policy and key actions for supporting a significant mode shift toward walking, cycling, ride share and transit within the community. Actions for consideration include:
  - Continuous and separated pedestrian paths and cycling lanes
  - Bicycle and car-share programs (e.g. Modo), including developments with built-in memberships
  - Transit-pass programs
  - Safe routes to schools and business areas
  - Advocating for increased transit services, and providing space for expanding hubs and park-and-ride lots where possible
  - Parking enforcement to ensure pedestrian and cycling lanes are clear and safe
3. **Electric and plug-in hybrid vehicles:** Develop a community electric vehicle strategy that includes a plan for increasing charging facilities at key locations throughout the community, considering requirements for charging stations in new residential and commercial developments, and providing parking spots for EVs only. EV sales continue to increase quarterly in BC, however, the share of new

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car sales that are electric is still less than 2% in BC. Building supportive infrastructure is critical to assisting with a more rapid transition toward electric vehicles in our community.

4. **Connect with existing programs:** Actively connect community members with existing provincial, utility or other programs such as the Clean Energy Vehicle Program by raising awareness through marketing, social media, and community events.
5. **Support the transition to biofuels:** (including renewable natural gas) Collaborate with the Capital Regional District, neighbouring municipalities, researchers and local industry to identify and support opportunities to generate, distribute and/or purchase biofuels or renewable natural gas in the region.

### Solid Waste

#### Objectives:

- Minimize waste going to the landfill
- Maximize the capture and re-purposing of waste in the landfill

#### Actions:

1. **Support regional diversion efforts:** Work with the Capital Regional District, residents and local businesses to achieve 100% organic waste diversion from residential and commercial sources. Consider opportunities to phase-out or ban single use items (e.g. straws and take-out containers).
2. **Capture and optimize use of landfill gas:** Support regional efforts to maximize the capture of landfill gas from the Hartland landfill, and to pursue opportunities to transform the captured gas into an energy resource (for example, renewable natural gas).
3. **Consolidate garbage collection services:** Currently multiple private companies provide collection services in the community – resulting in multiple trucks covering the same route. Review opportunities to consolidate services by area to reduce truck trips.

### Municipal Operations

#### Objectives:

- Transition the fleet to electric and low emission vehicles and fuels
- Build new buildings to the upper steps of the BC Energy Step Code
- Use a "climate lens" to ensure significant capital decisions incorporate climate change implications (both mitigation and adaptation)

#### Actions:

1. **Carbon neutral operations:** Since 2015, the District has been carbon neutral in its operations through the purchase of carbon offsets. Continue to support carbon reduction projects through the purchase of carbon offsets, with a focus on local or near-local projects where possible.
2. **Green fleet transition:** Beginning in 2018, transition the light-duty fleet to electric vehicles at time of renewal, or in advance of renewal where fuel and maintenance cost savings support the investment. Identify suitable applications where the use of vehicles can be replaced with zero emission alternatives (e.g. electric bicycles).

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In 2019, develop a strategy to convert heavier-duty fleet vehicles to lower emission vehicles best suited to meet the performance requirements. In the near-term this is most likely a conversion to natural gas vehicles.

3. **Support biofuels:** Identify opportunities to support increased use of biofuels in the fleet (e.g. through use of higher blends of biodiesel such as B20, or the purchase of renewable natural gas in natural gas vehicles).
4. **Showcase renewable energy:** Identify opportunities to showcase various renewable energy projects that are visible to the community as a means to raise awareness, support local capacity building opportunities and encourage community members to uptake renewable energy. For example, installing a solar array on a municipal building demonstrates a visible commitment to renewable energy. Other examples include branding on fleet vehicles that are low or zero emission, or are powered with biofuels.
5. **Highly efficient new buildings:** Ensure new facilities meet high standards of energy efficiency, demonstrating leadership in the community and supporting industry transition toward more efficient building practices. Where appropriate, integrate use of alternative energy technologies such as geo-exchange and solar technologies.

## Adaptation to Climate Change

### Objectives:

- The District and community members understand the range of potential impacts of climate change in our area.
- The District and community members are prepared for and resilient to the impacts of climate change.

### Actions:

1. **Risk and vulnerability assessment:** In order to prepare ourselves for potential changes to our climate, we need to understand how sensitive our community is to the range of potential projected changes in our climate (from hotter, drier summers, to wetter winters, to more intense rainfall events, etc.) This risk and vulnerability assessment will help us identify how to prepare for the changes with minimal disruption and costs, while seeking to maximize the benefits.
2. **Climate considerations in operations and plans:** Identify opportunities to integrate climate considerations into planning and operations to address risks and vulnerabilities identified during the initial assessment. Examples may include changes to infrastructure design standards, improvements to hard infrastructure, development considerations for expanding flood plains and areas affected by sea level rise, and enhanced emergency response programs.
3. **Public awareness of risks and adaptation strategies:** Collaborate with the Capital Regional District and neighbouring communities to incorporate climate-related communications, emergency preparedness and disaster planning into public outreach materials and activities.

## Implementation & Monitoring

### Resources

Implementation of this Climate Leadership Plan will involve a commitment of staff time and municipal resources to plan, develop and oversee actions – including policy development, engagement and outreach with government and industry partners, communication and education with public and more – while also staying abreast of leading practices, opportunities and funding. With renewed senior government focus on climate action, support may be available for partial funding of municipal staff positions that support implementation of climate action plans like this one. The responsible staff would also oversee monitoring and reporting progress, and undertake a review of this plan in 5 to 10 years.

### Monitoring and Reporting

Ongoing monitoring of implementation progress and associated benefits, and subsequent reporting of these in a clear, consistent manner will ensure the District stays on track with its targets and remains accountable to the community and partners.

The District annually reports to the Province on climate action activities undertaken in relation to community-scale and municipal operations. Although this report provides a comprehensive list of activities, it could be accompanied by a concise overview that clearly indicates progress on climate action.

A preliminary monitoring framework is proposed as follows:

| Indicator  | Objective             | Data source  | Timeframe             |
|--|-----------------------|--|-----------------------|
| <b>Community-scale GHG emissions, relative to 2007</b> | 80% reduction by 2050 | Await updated data from the Province   | Biennial              |
| <b>Renewable energy proportion</b>                     | 100% by 2050          | Await updated data from the Province   | Biennial              |
| <b>Building energy use</b>                             | Annual reduction      | Consolidated data by energy type from the Province   | Annual                |
| <b>Energy efficiency retrofits</b>                     | Annual increase       | New: implement tracking with new retrofit program  | Annual                |
| <b>Active transportation mode share</b>                | Annual increase       | Transportation survey data for the Saanich peninsula from the CRD and/or Census data             | Approx. every 5 years |
| <b>Density near transit routes (or hubs)</b>           | Annual increase       | New: develop method to extract population density along transit routes in urban settlement areas | Annual                |
| <b>Solid waste GHG emissions</b>                       | Annual reduction      | Consolidated data from the Province  | Annual                |
| <b>Kilometres of pedestrian and cycling paths</b>      | Annual increase       | New: implement tracking with investment in active transportation infrastructure                  | Annual                |
| <b>Number of community EV charging stations</b>        | Annual increase       | District records   | Annual                |

## Conclusion

It is necessary for the District to take early and substantial action to reduce the potential impacts of climate change. Currently, our emissions are remaining relatively flat, even with a modestly growing population. However, there is much work to do to make significant shifts in our transportation, buildings and solid waste sectors in order to achieve our goals to reduce overall community-scale emissions and transition to 100% renewable energy by 2050.

Even if we achieve significant reductions in emissions, we are already facing changes in our climate – leading toward hotter, drier summers and wetter winters. This plan also highlights the need to understand the risks and hazards associated with a changing climate, and to prepare our infrastructure, social and economic systems and natural systems to handle these changes.

The longer we delay, the more costly and difficult it becomes to achieve these goals. This action plan lays out how the District can move forward; but the District needs support from senior governments, community members, industry and other partners to set us on a path to meeting our goals.

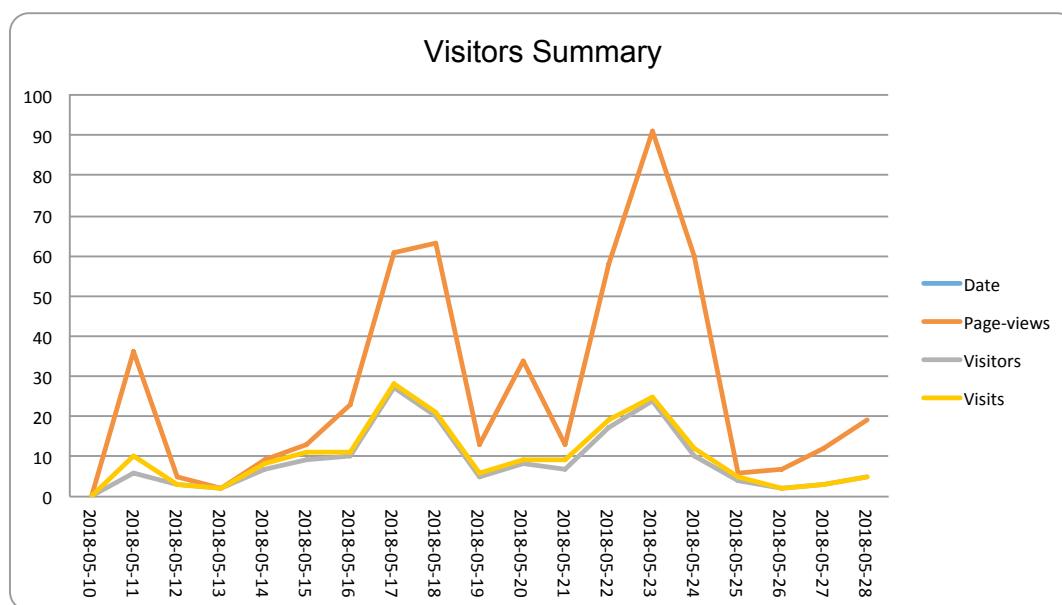


## Appendix A: Community Feedback

During the plan development period (May to June 2018), two forums were offered to community members to provide input to refreshing this plan: 1) a public open house hosted at Municipal Hall; and 2) on online engagement site, which opened May 11, 2018 and will run until the end of June, 2018.

The online engagement consists of adding ideas, voting on ideas, and answering poll questions. To date, the engagement site has been visited by 156 people. Of the visitors, 75 visited multiple pages and 14 downloaded the Climate Leadership Plan Background document. The site's Ideas tool solicited 17 ideas from the public about ways to reduce greenhouse gas emissions, which visitors are able to vote for (a list of submitted ideas is provided below). Three polls were posted on the site and have received 32 responses to date. The highlights of these forums to date are summarized here.

### Online forum – total of 189 visits (as of May 29)



### List of ideas generated through all engagement forums: (with associated votes in brackets, where applicable)

#### Transportation – Community

- Transit advocacy
  - Keating Transit Hub needs District support
  - Work with BC transit/set targets for increased services
  - Acknowledge increase taxes to support
  - Create incentives for local businesses to offer transit passes to employees
- Active transportation plan – design and implement
- Park & ride on District property
- Improve access to active/alternative transportation
  - Improve safety of non-vehicle infrastructure (e.g. bike lanes, walking paths) and design for walking (6)

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- Improve connection of bike lanes and walking paths to other parts of the community and neighbouring communities (5)
- Create policy to ensure new developments incorporate car share and EV charging infrastructure.
- Increase access to electric vehicles and public charging stations
- Encourage car share businesses to include electric vehicles in their fleets
- Introduce roundabouts to improve traffic flow (and reduce emissions from start/stop vehicle operations)
- Consolidate private garbage collection amongst private collection companies (4)

### Buildings – Community

- Advocate for Provincial incentive program for retrofits
- Incentive program with creative funding and grant opportunities
- Self-funding renewables project promotion
- District heating system for Keating
- Adopt a higher step code sooner for new buildings (1)
- Residential buildings
  - Encourage water collection through incentives
  - Incentivize heat pumps (3)
  - Encourage / incentivize energy efficient technologies and retrofits in homes

### Waste – Community

- Host a Reuse Rendezvous and other waste reduction events (1)
- Collect compost and yard waste to reduce backyard burning and produce high-quality compost (3)
- Develop policy on one-time use items, e.g. plastic bags and straws, to eliminate these items from the waste stream (1)

### District Operations

- Employee incentives for alternative/low carbon travel to work
- Employee wellness pass for local recreation
- Apply to provide discounted bus passes to staff
- Organized carpooling
- Promote bike to work / car-free days
- Support telecommuting / flex work days
- Raise awareness about climate change impacts in the community
- Adaptation planning
- Identify carbon capture opportunities
- Purchase electric vehicles for District fleet
- Convert District fleet to low carbon fuels, e.g. propane, or renewable natural gas