

DATE OF MEETING December 1, 2021

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SUBJECT REIMAGINE NANAIMO POLICY UPDATE AND REVIEW

OVERVIEW

Purpose of Report

To update and involve the Environment Committee in the ongoing REIMAGINE Nanaimo policy review process, with a specific focus on greenhouse gas reduction.

Recommendation

That the Environment Committee recommend that Council:

1. Endorse the approach for policy development in regards to greenhouse gas reduction.

BACKGROUND

REIMAGINE Nanaimo is an integrated planning and engagement process focussed on updating the City of Nanaimo's Official Community Plan (now called CityPlan) in a holistic manner that involves the plan functioning as the City's Climate Action Plan. The project is currently in its third Phase, which is focussed on the development of a draft land use scenario as well as confirming policies both existing and new.

DISCUSSION

Currently, CityPlan is being drafted by organizing policies under five goal areas. While environmental policies can be organized under all the goal areas, the majority of the draft environmental policies (including those related to green house gas reduction/climate change mitigation) are being organized within the Green Nanaimo goal.

The draft Table of Contents for the new CityPlan document organizes policies under five goals developed using the Nanaimo's doughnut economics framework. Targets, indicators, and action plans that are essential to implementing the draft CityPlan, will sit in separate stand-alone documents that are intended to be reviewed and updated on a more regular basis than the CityPlan.

Existing and newer/enhanced policies are being incorporated into the draft CityPlan through the following three methods:

1) Policy Elevation:

The contents of approximately 40 secondary policy documents have been considered for integration into the draft CityPlan. These documents have been previously approved by City Council, however policies in the existing 2008 Official Community Plan may not reflect these documents. Some of these documents include the Climate Resiliency Strategy, Sustainability Action Plan, Urban Forestry Plan, Step Code Implementation Strategy, Community Wildfire Action Plan, Transportation Master Plan, Parks Recreation and Culture Master Plan, Invasive Plant Strategy, and Emergency Food and Nutrition

Strategy. Many policies from these secondary documents are being incorporated into the draft CityPlan.

2) *Development Permit Area Review and Updating:*

Several of the nine existing Development Permit Areas (DPAs), are being updated and three new ones are being developed through the REIMAGINE Nanaimo process. To stay current with best practices and enhance enforceability, justification for these DPAs will remain in the CityPlan document while guidelines will be included an updated zoning bylaw.

Throughout Phase 1 and 2 of the REIMAGINE Nanaimo process, Staff teams, professional consulting biologists, and the development community have reviewed watercourse and environmental protection information, in DPAs 1 (Watercourses) and 2 (Environmentally Sensitive Areas). Feedback from this review has been incorporated in updated policy language in both DPAs. This will be addressed in more detail in a separate report on the Committee's agenda.

As recommended by the Climate Resiliency Strategy and through the REIMAGINE Nanaimo engagement process, new DPAs are under development for Sea Level rise, Coal Mine Hazard, and Wildfire Interface. These DPAs will have both policy and mapping components.

3) *Enhanced and New Policy Development:*

Although policies exist in the 2008 OCP and other City documents related to partnerships, relations with First Nations, GHG reduction and contaminated sites, to give greater emphasis to the importance to these focus areas it is proposed that the draft CityPlan build on these policies to include several new and enhanced policy areas.

Some of the bullets below on enhanced and new policies show how GHG reduction policies are being included in the draft CityPlan.

- **Greenhouse gas (GHG) Reduction**—These policies will be the focus of a presentation and discussion during the December 1 meeting. Enhanced and new policies build upon existing policies from several sources including the 2008 OCP, Transportation Master Plan, and Community Sustainability Action Plan. Policies are also being revised to meet targets set by Council's Climate Emergency Declaration. High-level actions that the City can undertake to reduce GHG emissions and increase climate resiliency will also be discussed.
- **Partnerships**—Existing partnership policies will be enhanced to build on ongoing collaboration with First Nations, other levels of government, and local community organizations. Partnerships with higher levels of government are essential to many carbon reduction programs. Community partnerships are also essential to stewarding natural assets, planting trees, and removing invasive plants. New partnerships will also be necessary to move forward with some infrastructure and climate resiliency projects.
- **Reconciliation**—Existing policies are being enhanced and new ones developed relating to strengthening the City's relationship with Snuneymuxw First Nation and Snaw-Naw-As (Nanoose First Nation). As well, other new policies related to

the City's role in advancing reconciliation are also being developed. There is opportunity to explore how these can be related to GHG reduction and climate resiliency.

- **Contaminated Sites**—Existing policies are being enhanced and new policies being added to address contamination issues on City owned properties and private properties within the context of Provincial legislation. As part of this policies to support incentives and initiatives to encourage redevelopment of brownfield sites are under consideration.

SUMMARY POINTS

- The REIMAGINE Nanaimo process is providing an opportunity to enhance existing, and develop new policies related to GHG reduction/climate change mitigation and climate resiliency.
- Existing Development Permit Area policies to support green goals are being updated and new Development Permit Area policies are being developed.
- Targets, indicators, and action plans that are essential to implementing the draft CityPlan, will sit in separate stand-alone documents that are intended to be reviewed and updated on a more regular basis than the CityPlan.

Submitted by:

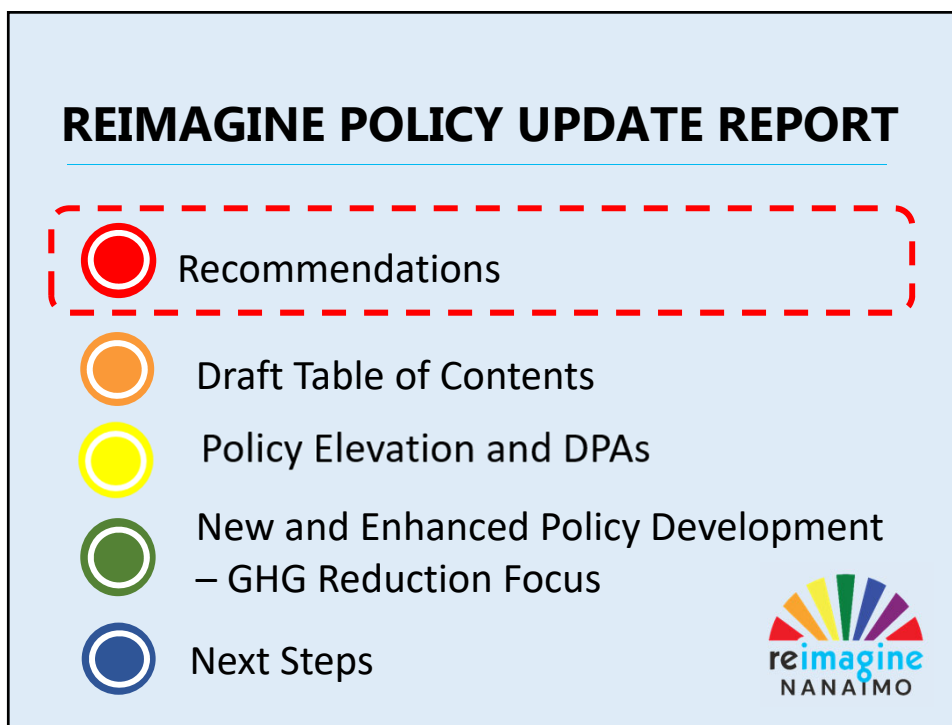
Lisa Bhopalsingh |
Manager, Community Planning

Concurrence by:

Jeremy Holm
Director, Development Approvals

Bill Corsan
Director, Community Development

Dale Lindsay
General Manager, Development Services |





Recommendations

1. Receive the Reimagine Nanaimo policy framework as outlined with further committee review and public engagement in early 2022; and
2. Endorse the approach for policy development in regards to greenhouse gas reduction.




-  Recommendations
-  Draft Table of Contents
-  Policy Elevation and DPAs
-  New and Enhanced Policy Development – GHG Reduction Focus
-  Next Steps



Draft Table of Contents

part A welcome

01 OUR CITY, OUR FUTURE
Why and how Nanaimo has created City Plan to guide its future.
Key elements:

- Purpose of City Plan
- Process for creating the plan

02 PAST, PRESENT, FUTURE
How our past and present set the stage for planning our future.
Key elements:

- Graphic summary of demographics
- Current trends and context
- Land capacity

03 AT A GLANCE
How to use City Plan.
Key elements:

- Plan organization
- Key resources



part B foundations

01 FRAMING
Introduction to the Nanaimo Doughnut and how it guides City Plan and decision-making for the future.
Key elements:

- About Doughnut Economics
- Nanaimo Doughnut overview
- Local and global context
- Using the doughnut

02 GOALS
Introduction to the five integrated goals, what they mean, and how they support the Nanaimo Doughnut.
Key elements:

- Linking our goals to the doughnut
- An integrated approach

03 MONITORING
A commitment to tracking performance and progress towards our goals.
Key elements:

- Introduction to targets and indicators (*Note: final targets and indicators to be in separate document*)

reimagine	
part C city structure	
01 AN INTEGRATED STRUCTURE	03 LAND USE STRUCTURE
Nanaimo's physical growth strategy and how it is shaped by planning and design, mobility, our green and blue network, and managing growth.	City land use designations, descriptions, and policies for growth that aligns with our goals.
<i>Key elements:</i>	<i>Key elements:</i>
<ul style="list-style-type: none"> • Overview of physical city structure 	<ul style="list-style-type: none"> • Land use designations map + descriptions • Land use policies
02 GROWTH MANAGEMENT	04 MOBILITY STRUCTURE
How we're focusing growth to support our goals.	Overview of integrated mobility.
<i>Key elements:</i>	<i>Key elements:</i>
<ul style="list-style-type: none"> • Urban containment boundary • City Plan concept • Town Centres, corridors, and neighbourhoods 	<ul style="list-style-type: none"> • Mobility map + descriptions • Approach overview
	05 GREEN + BLUE STRUCTURE
	Overview of a physical layout of an integrated green and blue structure.
	<i>Key elements:</i>
	<ul style="list-style-type: none"> • Green and blue map + descriptions • Approach overview

part D goals + policies	
01 A GREEN NANAIMO	03 A CONNECTED NANAIMO
<i>Key elements:</i>	<i>Key elements:</i>
<ul style="list-style-type: none"> • What is a Green Nanaimo? • Objectives + policies: GHG reduction, climate adaptation + hazards management, urban forests + greenways, watershed and environmental management, contaminated sites, green+ affordable services 	<ul style="list-style-type: none"> • What is a Connected Nanaimo? • Objectives + policies: complete neighbourhoods, integrated walk, cycle, and transit network, complete streets, vision zero (safe mobility)
02 A HEALTHY NANAIMO	04 AN EMPOWERED NANAIMO
<i>Key elements:</i>	<i>Key elements:</i>
<ul style="list-style-type: none"> • What is a Healthy Nanaimo? • Objectives + policies: affordable housing, schools, food security, social integrity, equitable neighbourhoods, public safety 	<ul style="list-style-type: none"> • What is an Empowered Nanaimo? • Objectives + policies: reconciliation, equity + inclusivity, political voice, culture, heritage, recreation, parks and open space, waterfront
	05 AN ENABLED NANAIMO
	<i>Key elements:</i>
	<ul style="list-style-type: none"> • What is an Enabled Nanaimo? • Objectives + policies: economic capital, human capital, social + environmental capital, business development, innovation + technology, place making + attraction

part **E** taking action

01 HOW WE GET THINGS DONE

An introduction to supporting action plans and strategies.

Key elements:

- Action Plan structure and approach

02 OUR NEIGHBOURHOODS

How we continue to support strong neighbourhoods.

Key elements:

- Existing neighbourhood plans
- Future neighbourhood planning

03 DEVELOPMENT PERMITS

Where and why we need to plan most carefully.

Key elements:

- Map of DPAs and HCAs
- Justification + objectives (*Note: guidelines to be incorporated into Zoning Bylaw*)

04 PARTNERSHIPS

How we will work with our partners to achieve great change.

Key elements:

- Identify areas of focus for partnerships

05 FINANCIAL MECHANISMS

How we plan to fund improvements in our community.

Key elements:

- Development Amenity Packages
- Other financial mechanisms

06 AMENDING THE PLAN

How we make changes as our community evolves.

Key elements:

- Amendment process

07 IMPLEMENTATION

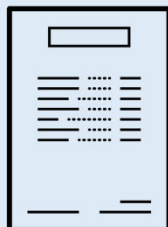
Key steps to implementation.

Key elements:

- Implementation summary

How can our city be home to thriving people, in a thriving community, while respecting the wellbeing of all people and the health of the whole planet?

reimagine



supporting info

01 GLOSSARY

Terms used throughout the City Plan.

02 CONTEXT STATEMENT

Summary of how City Plan is linked to the Regional Growth Strategy





reimagine
NANAIMO

-  Recommendations
-  Draft Table of Contents
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reimagine
NANAIMO

Development of Policies and Actions



- Existing policies and updates
- Policy elevation from secondary documents
- Development Permit Area (DPA) review and updating
- New policy development



DPA Review and Update

reimagine NANAIMO

Development Permit Areas

Justification and Objectives in CityPlan
DPA Guidelines in Zoning Bylaw | Best Practice and Greater Enforceability

Existing DPAs – Proposed Refinements to:

- DPA 1 through DPA 9 and HCA1
- More details on DPA 1 to follow

New DPAs Under Consideration

- Sea Level Rise
- Coal Mine Hazard
- Wildfire Interface

No.	Development Permit Area (DPA)
1	Watercourses (DPA1)
2	Environmentally Sensitive Areas (DPA2)
3	Natural Hazard Lands (DPA3)
4	Nanaimo Parkway Design (DPA4)
5	Steep Slope Development (DPA5)
6	Stewart Avenue Corridor (DPA6)
7	North Terminal Avenue Area (DPA7)
8	Old City Neighbourhood (DPA8)
9	Commercial, Industrial, Institutional, Multiple Family and Mixed Commercial/Residential Development (DPA9)

New Policy Development



New Policy Areas

- Partnerships
- Reconciliation
- Green Buildings
- Contaminated Sites
- Greenhouse Gas (GHG) Reduction



New policy development



Participation Cards

	Red—I don't support the further exploration of this policy/direction.
	Orange—I need more information. I have a question.
	Green—I support further exploration of this policy/direction.





reImagine
NANAIMO

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Greenhouse Gas (GHG) Policy Discussion

REIMAGINE NANAIMO



December 1, 2021



Background: Refresher on Nanaimo's Targets

Nanaimo has committed to:	BC has committed to:
Reduce greenhouse gas emissions 50%* from 2010 levels by 2030	Reduce greenhouse gas emissions 40%* from 2007 levels by 2030
Reduce greenhouse gas emissions 94%* from 2010 levels by 2050	Reduce greenhouse gas emissions 80%* from 2007 levels by 2050

Nanaimo has far more ambitious targets than the province
While having far fewer resources and legislative powers

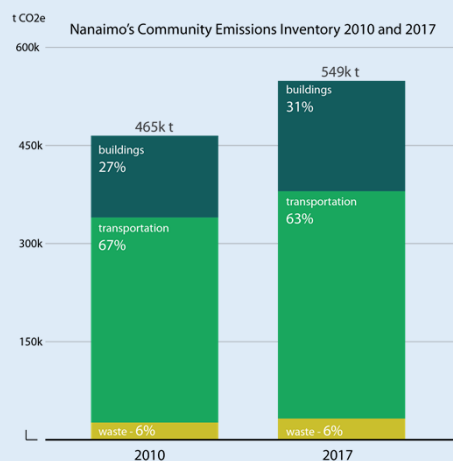
* 50 to 57% by 2030, 94 to 107% by 2050
Climate Emergency Declaration, April 2019

What causes Nanaimo's emissions?

Burning of fossil
fuels by residents
is primary driver:

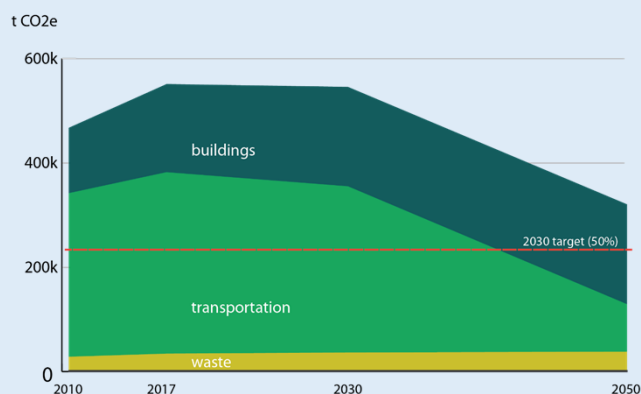
gasoline/diesel for
vehicles

natural gas/oil for
heating/hot water



Current policy and planning is not enough.

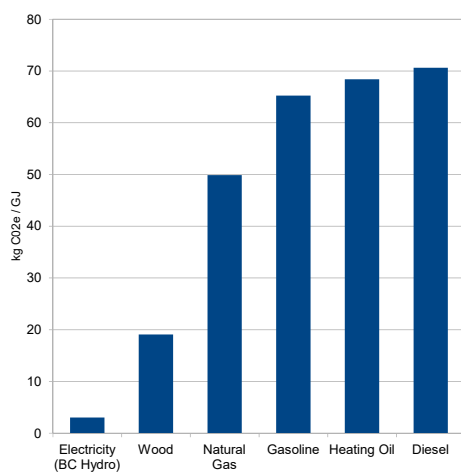
2020 modeling projected a 32% reduction from 2010 GHG emissions by 2050.



But!

Recent CleanBC 2030 Roadmap suggests aggressive policies that will help local governments make progress to meet their targets

Carbon Emissions of Common Energy Sources

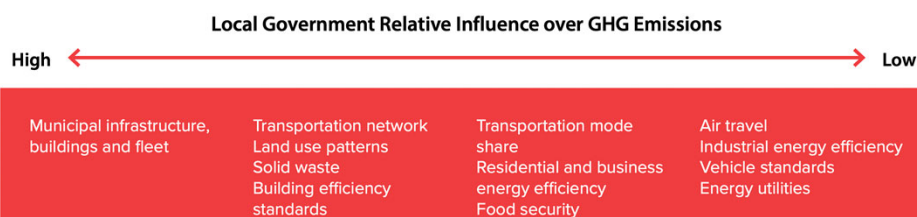


Fuel switching is key

While increased efficiency reduces fuel demand, it is unlikely to produce dramatic drops in GHG emissions quickly enough to reach targets.

BC Government has recently committed to a 100% zero carbon electricity grid by 2030.

Background: Areas of Influence



Adapted from: Options to Accelerate Climate Action. Available online: <https://kelownapublishing.escribemeetings.com/filestream.ashx?DocumentId=29429>

Source: Clean BC 2030 Roadmap (November 2021)

Background: Phase 2 Input Related to GHG Emissions Reduction



DRAFT GOAL
A GREEN NANAIMO:
RESILIENT & REGENERATIVE ECOSYSTEMS

82% Of participants felt this goal is important for Nanaimo's future (highest of any of the goals)

DRAFT INDICATORS



- Strong support for measuring GHG Emissions regularly
- Suggestions for breakdown and education to help the community understand sources of emissions and how to accelerate progress



Strong support and discussion on selecting land use directions that support compact, walkable, and complete neighbourhoods that reduce reliance on automobiles, supporting progress on GHG Emissions Reduction among other goals

Background: Draft Plans Structure

Current focus:

- Updating policy for **Nanaimo City Plan** to provide guidance on GHG Emissions Reduction
- Potential priority actions that could be within the **Integrated Actions Plan** to advance progress on GHG Emissions reduction targets

Note: All policy and actions are works in progress and will be refined through ongoing consultation, staff review, and public engagement.



Focus today is on
GHGs, but entire
**REIMAGINE
NANAIMO** plan
will support
emissions
reduction.

A GREEN NANAIMO – EMERGING POLICY AREAS

GHG Reduction
Climate Adaptation & Hazard Management
Urban Forest, Natural Areas & Greenways
Watershed & Environmental Management
Green & Affordable Servicing

A HEALTHY NANAIMO – EMERGING POLICY AREAS

Affordable Housing
Children, Youth, Families & Seniors
Food Security
Equitable Neighbourhoods
Community Safety & Wellbeing

A CONNECTED NANAIMO – EMERGING POLICY AREAS

Active Living & Wellness
Complete Communities
Integrated Walk, Cycle & Transit Network
Complete Streets
Trails

AN EMPOWERED NANAIMO – EMERGING POLICY AREAS

Safe Mobility (Vision Zero)
Social Connection
Truth & Reconciliation
Equity & Inclusion
Political Voice & Engagement
Access for All

AN ENABLED NANAIMO – EMERGING POLICY AREAS

Culture
Heritage
Parks & Open Spaces
Waterfront
Emergency Management
Economic Capital
Human Capital
Social & Environmental Capital
Business Development
Innovation & Technology
Place Making & Attraction
Tourism

Policies and
actions in all of
the Goal areas
will influence the
City's progress on
reducing GHG
Emissions

Nanaimo's GHG Targets – City Plan

Current OCP Policy

The City of Nanaimo will work to reduce emissions by 3% below 2007 emissions levels by the year 2020. Over the long term, the City will continue to work toward reducing emissions by 39% of 2007 emissions levels by the year 2050. The *Sustainability Action Plan* identifies sustainability actions to achieve the City targets for GHG emission reduction.

2019 Declaration

Council declared a **Climate Emergency** in 2019, and set targets for 2030 and 2050. (Federal targets)

Proposed Updated City Plan Policy (DRAFT)

The City of Nanaimo will work to reduce community greenhouse gas emissions to Net Zero by 2050.

Nanaimo's GHG Targets – City Plan

Current OCP Policy

The City of Nanaimo will work to reduce emissions by 3% below 2007 emissions levels by the year 2020. Over the long term, the City will continue to work toward reducing emissions by 39% of 2007 emissions levels by the year 2050. The *Sustainability Action Plan* identifies sustainability actions to achieve the City targets for GHG emission reduction.

Council declared a Climate Emergency in 2019, and set targets for 2030 and 2050.

Proposed Updated City Plan Policy (DRAFT)

The City of Nanaimo will work to reduce community greenhouse gas emissions to Net Zero by 2050.

The City will explore ways to reduce emissions beyond Net Zero to reach Climate Emergency target of 107% reduction by 2050.

Nanaimo's GHG Goals – Potential Actions

Possible Actions to Consider (DRAFT)

Action	Effectiveness	Costs	Barriers
Review and update interim (2030, 2025?) targets on a regular (3 year?) basis.		Low	
Commit to regularly measuring and reporting on community emissions, with emphasis on transportation, to ensure policies are having desired impacts.		Moderate	



~11% of emissions by 2050

Current Nanaimo policy is to use Step Code to require higher energy efficiency than BC Building Code, provide Low-Carbon option as alternate.

CleanBC indicates all new construction in BC will be Net Zero by 2030

New Construction – City Plan

Current OCP Policy

The City of Nanaimo shall encourage greater energy efficiency in the planning, design, and construction of neighbourhoods and buildings by developing a strategy that focuses on both new and existing built stock, and which encourages and / or requires the planning, design and construction of energy-efficient neighbourhoods and buildings.

Proposed Updated City Plan Policy (DRAFT)

Zero-carbon and energy efficient building design and practices will be *required* for all new construction after 2030.

Zero-carbon and energy efficient building design and practices will be *strongly encouraged* for all new construction before 2030.

New Construction– Potential Actions

Possible Actions to Consider (DRAFT)

Action	Effectiveness	Costs	Barriers
Explore policy for incentivizing Low- or Zero- Carbon Option for all new construction before 2030.	Moderate	Low to City; Potential higher cost of construction	
Extend Step Code policies to all new construction (not just rezonings) before 2030	Moderate	Low to City	



>65% of existing building stock
will still exist in 2050

Projected to be ~39% of
total emissions in 2050

Limited authority to mandate

Nanaimo currently tops up
CleanBC incentives for
homeowners upgrading to low-
carbon (\$200)

Province has indicated that a
retrofit code is coming

Retrofits (Existing Buildings) – City Plan

Current OCP Policy

Whenever possible, new and existing development will implement measures to reduce consumption through increased recycling, decreased water use, the use of alternative energy sources, or other innovative techniques and practices.

Proposed Updated City Plan Policy (DRAFT)

All existing buildings, *except where not feasible / possible*, will be upgraded to reach Net Zero emissions by 2050.

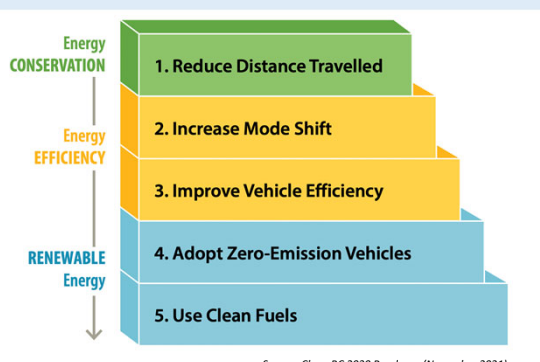
Should the City establish interim targets?

Retrofits (Existing Buildings)– Potential Actions

Possible Actions to Consider (DRAFT)

Action	Effectiveness	Costs	Barriers
Increase City top-ups for upgrades	Low to High	Low to high	
Launch education program to emphasize low-carbon heating/hot water systems	Moderate	Low to City	
Review policies that hinder installation of low-carbon systems (heat pumps, solar PV)	Moderate	Low	Community perceptions e.g. heat pumps are noisy
Set targets and develop policies/incentives to eliminate Oil heating by 2030	Moderate / High	Moderate	Lack of data

Transportation



63% of emissions in 2017

Electrification will reduce emissions – 100% of light duty vehicles sold by 2035

Reduce distance travelled is key

Co-benefits (congestion, health, costs)



ACTIVE TRANSPORTATION



2014 Transportation Plan targets
24% of trips by walking / biking /
transit by 2041 (up from 12%)

Draft targets reduction in distance
driven by 29% per person by 2041

If targets are met, GHG reduction
of 17% by 2050 (offset by EV
reduction)

CleanBC now targeting 25%
reduction by 2030(!)

Equity, health and
community co-benefits

Active Transportation – City Plan

Current OCP Policy

Improve mobility and servicing efficiency by creating greater accessibility and more opportunity for safe and convenient movement around the city by transit, cycle and on foot.

Develop a system of active transportation routes that can support safe cycle and pedestrian travel for commuting, recreation and tourism. (*2014 Transportation Master Plan*)

Proposed Updated City Plan Policy (DRAFT)

Prioritize alternative transportation modes such as walking, cycling and transit.

Active Transportation - Potential Actions

Possible Actions to Consider (DRAFT)

Action	Effectiveness	Costs	Barriers
Set specific targets for vehicle kilometers travelled (VKT)	?	Low	Might be difficult to reach targets
Review policies to reduce vehicle ownership	High	Low	Cultural, policy inertia
Evaluate parking policies (on street / parking requirements for new development)	Moderate / High	Low	Community perceptions
Develop Active Transportation Implementation Plan with Capital Plan	High	High	Capital Costs



ZERO EMISSION VEHICLES



0.9% of Vehicles in
Nanaimo are EV
(December 2020)

Projected to grow to
~20% by 2030,
despite mandate for
90% EV Sales

80% of 2018
Transportation
Emissions from
Personal Vehicles



ZERO EMISSION VEHICLES



Current policy requires all new developments to have 100% of parking pre-wired for EV

Existing low density homes easy to retrofit

Substantial barriers for retrofitting existing multi-family developments

Zero Emission Vehicles – City Plan

Current OCP Policy

N/A

Proposed Updated City Plan Policy (DRAFT)

Ensure that all residents have access to zero-emissions charging facilities.

Zero Emission Vehicles- Potential Actions

Possible Actions to Consider (DRAFT)

Action	Effectiveness	Costs	Barriers
Accelerate zero-emissions transportation by developing a zero emissions mobility strategy			
Develop an EV charging strategic plan to identify likely gaps where retrofitting EV chargers into existing buildings will be difficult	High	Low	Implementation might be expensive, BC has indicated financial support in CleanBC
Develop an e-bike strategy	High	Low	
Revise parking standards to strengthen requirements for e-bike parking in new developments	Moderate / High	Low	



WASTE REDUCTION



Key driver of GHGs from waste is decomposition of organic matter in landfill

Current Policy: Target 90% Waste Reduction by 2029 (from 1980s value) – 109 kg/person/yr

Focus on Organics Diversion (compostable and paper – 47% in 2012)

Solid Waste – City Plan

Current OCP Policy

To manage solid waste. Meeting the community's basic needs for solid waste collection and disposal.

To reduce solid waste generation. Focus on the regional goal of zero waste and minimize the amount of waste that must be land filled.

To practice the "three R's". Provide city residents opportunities to reduce, reuse and recycle, as well as to explore redesign, composting and other practices.

Proposed Updated City Plan Policy (DRAFT)

Substantially reduce / eliminate organic matter that is sent to land fill by 2050.

Solid Waste - Potential Actions

Possible Actions to Consider (DRAFT)

Action	Effectiveness	Costs	Barriers
Develop plan to eliminate organic waste in landfill by 2050	High	Low	Difficult to achieve
Explore development of a deconstruction policy instead of demolition in order to reduce construction waste	High		Adds cost to construction – potential impact on affordable housing goals

Embodied GHGs– City Plan

Current OCP Policy

Direct builders to think about salvaging from existing structures; reusing construction and demolition waste and making efficient and responsible use of materials.

Proposed Updated City Plan Policy (DRAFT)

For all construction projects, consider the full GHG emissions life-cycle of materials.

Embodied GHGs - Potential Actions

Possible Actions to Consider (DRAFT)

Action	Effectiveness	Costs	Barriers
Develop plan to consider embodied GHGs of proposed projects.	High	Low	Few accepted techniques and standards for measuring embodied GHGs.



