Consultation Guide

BUILDING B.C.’S

CLIMATE LEADERSHIP PLAN

JANUARY 2016

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Message from the Minister of Environment

Since the introduction

of our first Climate

Action Plan, British

Columbia has been

recognized as a world

leader in addressing

climate change. This is

thanks in no small part

to previous leaders who

had the foresight to

recognize the climate

imperative, and begin charting our path to lower

greenhouse gas emissions.

Today, the momentum for taking climate action is

building globally. The world is clearly moving in a

new direction, one marked by a lower carbon future.

Nowhere is this more apparent than in the large and

growing economies in Asia such as China and India.

British Columbia is perfectly positioned to continue

to be at the forefront of this movement. We can

strengthen B.C.'s economy and create jobs by

becoming a key supplier of cleaner energy solutions

like clean tech, innovation and liquefied natural gas,

to help Asian economies reduce emissions.

In December 2015, I joined Premier Christy Clark as part

of Canada’s team at the 21st United Nations Climate

Change Conference in Paris, where leaders from

around the world signed an historic agreement aimed

at holding the increase in global average temperature

to “well below” 2°C above pre-industrial levels.

Here in B.C., our approach is not only about

reducing emissions. It’s designed to benefit both the

environment and the economy. It is vitally important

that we continue down this path, transforming the

way we live, work and travel to create a cleaner planet

and strong economy for decades to come.

I sincerely thank the thousands of British Columbians

who -- over the past several months – shared their

opinions, which are key to the development of our

new Climate Leadership Plan. Now we’re asking

you to join in this next phase by reviewing this

consultation guide for the final Climate Leadership

Plan, and participating in the engagement

process through the website: engage.gov.bc.ca/

climateleadership.

We will review your comments and input, and use

them to help finalize the Climate Leadership Plan,

which will be released in the spring of 2016.

A strong Climate Leadership Plan will help us take

advantage of the low-carbon economy of the

future, and the thousands of green jobs that goes

with it, while keeping us on track to our long term

greenhouse gas reduction targets for 2050.

HONOURABLE MARY POLAK

MINISTER OF ENVIRONMENT

[1]

THE CLIMATE LEADERSHIP PLAN PROCESS

This process will help determine the actions needed to reach our climate goals.

We are here

NEW CLIMATE LEADERSHIP PLAN AND TEAM ANNOUNCED

MAY 2015

DISCUSSION PAPER POSTED

JULY 2015

PUBLIC CONSULTATION #1

TEAM MAKES RECOMMENDATIONS

GOVERNMENT REVIEW AND CONSIDERATION

GOVERNMENT REVIEW

AND CONSIDERATION

CLIMATE LEADERSHIP

PLAN COMPLETED

SPRING 2016

CLIMATE LEADERSHIP TEAM

RECOMMENDATIONS

PUBLIC CONSULTATION #2

JANUARY 2016

CLIMATE LEADERSHIP TEAM

WORKING TOGETHER

SUMMER

2015

FALL

2015

WINTER/

SPRING

2015-2016

[2]

NEXT PHASE OF CONSULTATION

During our first phase of consultation, many

British Columbians provided their ideas and

priorities for climate action – through nearly

6,000 completed surveys, 300 template letters

and over 200 individual submissions. Your input

helped inform this consultation guide for the

final plan, together with recommendations from

the Climate Leadership Team (CLT). You can find

the results of the first phase at engage.gov.bc.ca/

climateleadership.

The province recently received the Climate

Leadership Team Recommendations Report,

including 32 recommendations to reduce

greenhouse gas emissions while maintaining a

focus on economic opportunities. This group

of diverse B.C. leaders suggests renewed action

beginning in the 2016/17 fiscal year.

The recommendations address:

» greenhouse gas reduction targets and

progress reviews;

» carbon pricing and fiscal policy;

» climate action across industry, communities,

buildings and transportation sectors; and

» intergovernmental and First Nations relations.

The wealth of input received to date – from the public

survey, the CLT recommendations and ongoing

internal government review – will now inform our

next round of climate change work. Concurrent

review will continue as government conducts sector-

specific consultations, does further analysis of options,

including the CLT recommendations, and ties all

of this activity and information in with developing

federal government initiatives.

[3]

BUILDING ON B.C.’S STRONG FOUNDATION

Our understanding of climate change continues

to improve. Recently, scientists have released

predictions of how climate change will affect our

ecosystems, infrastructure and livelihoods well into

the future. For example, in less than one lifetime,

B.C. is projected to lose almost three-quarters of

its glaciers. We’ve witnessed a summer of extreme

events with forest fires and water shortages. While

some amount of climate change is unavoidable,

by acting now the world can limit irreparable harm

and prepare for changes already underway.

In B.C. we are doing our part and our experience

shows that we can address climate change

while still creating a strong economy and

vibrant communities.

The actions of other nations also reflect a growing

understanding that climate change is a threat to

the quality of life of people globally. For example,

at the recent Paris conference, for the first time

ever, nations acknowledged collective responsibility

for addressing the problem. Additionally, for the

first time, 195 nations fully agreed on the science

of climate change and that we must limit human-

caused global warming to no more than 2°C and,

preferably, 1.5°C.

Clean Tech and Clean Energy

Globally, the demand for clean energy and climate

solutions continues to grow. As countries look for

cleaner energy alternatives, particularly in Asia,

B.C. is positioned to ensure our liquefied natural

gas (LNG) plays an important role in decreasing

global emissions.

B.C.’s Clean Economy

» The province has 68,165 clean economy

jobs, a 12.5 per cent increase since 2010.\*

» British Columbia’s clean economy

GDP rose to $6.31 billion by 2014, a

19.3 per cent increase from 2010.\*

\*West Coast Clean Economy 2010-2014

Jobs Update, Delphi Group 2015

B.C. has over 200 clean tech companies that generate

an estimated $1.7 billion in revenues annually.1

They are important contributors to B.C.’s growing

technology industry. These forward-thinking

companies represent incredible opportunities for our

province to create new jobs and provide economic

benefits for all British Columbians.

While Canada’s clean tech industry grew last year, it

currently captures just one per cent of the $1 trillion

clean tech global market.2 By encouraging local

development of technology to address our own

challenges, government can ensure B.C. companies

are positioned to take advantage of emerging

export opportunities. The U.S. has significant growth

opportunities for companies in renewable energy,

wastewater management, clean transportation and

green building.3 In fast-growing economies like

China and India, clean technology and cleaner fuels

are in higher demand than ever.

As our buildings, facilities and vehicles transition to

clean tech and fuels, our abundant natural resources,

including hydro-electricity, biomass and wind, will

provide a stable supply of clean, renewable energy.

1 B.C. Technology Report Card for B.C., KPMG, 2014

2 Canadian Clean Technology Industry Report, Analytica Advisors, 2015

3 https://www.britishcolumbia.ca/export/key-markets/united-states/

[5]

Efficiency Improvements

Improved energy efficiency in our buildings

and vehicles is saving British Columbians energy

and carbon costs. Case studies from Climate Smart

businesses show total annual operating cost

savings of over $2.2 million and 13,500 tonnes of

greenhouse gas emissions reduced.4 Another study

found that high energy efficiency standards in the

residential, commercial/institutional and industrial

sectors will return about $3 in savings for every

program $1 invested, increase Canada’s annual

GDP by over $47 billion and create over 300,000

jobs per year.5

Competitive Industries

Using the best new technologies here in B.C.

means our foundational industries are gaining a

competitive edge, while continuing to export their

innovations to help businesses save money and

reduce their impact on the environment.

Many of our lumber mills have improved thermal

efficiency through boiler upgrades, and reduced

their energy and carbon costs by switching to

biomass as a fuel source. Natural gas facilities’

emission reduction strategies are also reducing

carbon costs. These strategies include electrification,

eliminating routine flaring and preventing methane

venting and leaks.

Our abundant natural resources position B.C.

well in the new low carbon economy. Our forests

present us with enormous carbon sequestration

opportunities. Collaboration with First Nations,

industry and other governments has led to several

hallmark carbon projects in B.C.’s Great Bear

rainforest. These projects not only protect existing

carbon stocks but also support the area’s distinctive

biodiversity and economic opportunities for local

communities, including First Nations.

4

Are Small to Mid-Sized Businesses the Catalyst to a Low Carbon

Economy in B.C.? Pacific Institute for Climate Solutions, 2013

5

Energy Efficiency: Engine of Economic Growth in Canada, Acadia

Centre, 2014

Strong Climate Action

Offers Many Benefits

» A healthier environment with lower

air pollution and resilient ecosystems

» A place for B.C. as a global innovator

in business solutions to environmental

problems

» improved human health and safety

» Reduced exposure to risks and costs

of climate impacts

» improved choices for families and

businesses taking action, reducing

emissions and saving energy costs

» Compact and efficient communities

that encourage social interconnection

Healthy and Resilient

Communities

More attention is being turned to the critical role

of climate action in building healthy and resilient

communities. Strategies to reduce emissions and

invest in resilient infrastructure are also helping

to prevent adverse health impacts and promote

active lifestyles.

Increased risk of asthma, respiratory ailments, and

injuries are examples of potential health impacts

from climate events such as heat stress, extreme

flooding, storms or ongoing city congestion.

Diverse approaches are important, for example

ensuring buildings and roads are designed and

built with evolving climate risks in mind. Integrating

natural systems into infrastructure to reduce the

impacts of extreme events, such as heat or heavy

rainfall, is another example. Additionally, designing

cities that are more walkable and liveable reduces

energy use and costs, improves air quality, saves

commuting time and helps instil active lifestyles.

[6]

Strong Ecosystems

As the climate changes, the best way to maintain

resilience and the related ecosystem services is

to allow organisms to adapt, evolve and move as

necessary. A healthy core protected area network

that is connected and representative of the

ecosystems in the province will allow this adaptation.

Mitigating climate risks to the natural resources

that sustain us – fishing, agriculture, forestry and

water systems – is critical for improving long-term

outcomes and preventing future costs. B.C.’s natural

resource economy has already been hard hit by

impacts of climate change. Climate change will

significantly increase producer-business risk and

management complexity, while bringing some

opportunities for the agriculture, fisheries and

aquaculture sectors. To reduce the risks and to

take advantage of the opportunities, each industry

will need support to adapt and build resilience.

Leadership and Collaboration

Tackling climate change requires countries and

communities around the world to collaborate.

Organizations such as the World Bank and the

United Nations have identified B.C.’s revenue-

neutral carbon tax as a model to follow. The carbon

tax is a “text-book” example of how to get carbon

pricing right, says the Organization for Economic

Cooperation and Development.

B.C.’s public sector is also leading by example, and

in 2015, it achieved carbon neutrality for the fifth

year in a row. Government buildings showcase

examples of clean energy solutions for hundreds of

thousands of British Columbians when they access

government services, go to work or attend school.

WHAT WE HEARD FROM YOU

WHAT WE VALUE IS TOP PRIORITY FOR SURVEY RESPONDENTS

Public survey respondents to the B.C.’s government’s 2015 Climate Leadership Discussion Paper clearly

identified “What We Value” as the top priority for cutting emissions – both in the short and long term. The

goal was described as “the cost of climate change for society is considered whenever British Columbians

make important decisions,” for example, through carbon pricing or adapting to climate change.

Priority actions under this topic led with affordability of solutions for business and consumers (32 per cent of

respondents’ preference), followed close behind by expanding carbon pricing, driving organizations and people

to consider costs of adaptation in their decisions, and setting targets for types of emissions (about 23 per cent

preference for each).

Over 90 per cent of survey respondents feel that climate change is a serious issue.

Results from the first consultation activities in the development of B.C.’s Climate Leadership Plan can be

viewed at engage.gov.bc.ca/climateleadership

[7]

B.C. A WORLD LEADER ON CARBON PRICING

B.C. established a revenue-neutral carbon tax in 2008 to encourage individuals and organizations to reduce

fossil fuel use. The policy has been successful and continues to be a world-leading example of how to build a

strong economy in a carbon-constrained world. In 2015, about 40 national and over 20 subnational jurisdictions,

representing almost a quarter of global greenhouse gas emissions, are putting a price on carbon, as illustrated in

the map.\* This includes carbon taxes, emissions trading systems or other levies.

ETS – Emissions Trading System

\*Carbon Pricing Watch 2015; developed by World Bank and Ecofys.

Source: © 2015 International Bank for Reconstruction and Development/ The World Bank

[8]

The following principles, first introduced in our July 2015 discussion paper, guide development of the

Climate Leadership Plan.

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Climate Leadership Plan.

Our Principles

GOVERNMENT TAKES ACTIONS NOW THAT WILL RESULT IN BOTH

SHORT- AND LONG-TERM EMISSION REDUCTIONS.

ACTIONS BALANCE OUTCOMES ACROSS ECONOMIC,

ENVIRONMENTAL, AND SOCIAL OBJECTIVES.

THE APPROACH RECOGNIZES WE ALL HAVE RESPONSIBILITY —

IN B.C. AND GLOBALLY.

DECISION MAKING AND REPORTING ON PROGRESS ARE TRANSPARENT.

THE APPROACH ADDRESSES THE NEEDS OF THOSE INDIVIDUALS

AND FAMILIES LEAST ABLE TO RESPOND.

COLLABORATION AND PARTNERSHIPS ARE CRITICAL TO

LONG-TERM SUCCESS.

[9]

Our Pathway Forward

Setting the Stage

EMISSIONS AND THE ECONOMY

B.C. has a diverse economy including natural

resources, clean technology, renewable energy,

tourism, forestry and agriculture, service sector,

and creative and high-tech industries. Our economy

has grown, even as B.C. reduced emissions from

2007-2012.

“The example of British Columbia is one of the

most powerful. Its carbon price mechanism is

neutral to the tax payer – it’s not an increase

in tax.”

World Bank President,

Jim Yong Kim, Dec 2014

We have done this with a strong foundation of

climate action – a revenue-neutral carbon tax, clean

energy requirements, a low carbon fuel standard,

local government leadership and a carbon neutral

public sector.

Independent research at the University of Ottawa

has found that since the implementation of the

carbon tax, per capita petroleum fuel use in B.C.

has dropped, while it rose in the rest of Canada.

At the same time, its economy has kept pace with

the rest of Canada.6 This success is built upon the

principle of balancing economic prosperity and

environmental sustainability so both can advance.

Our carbon tax is resulting in meaningful climate

action progress, while allowing our business sector

to pay among the lowest corporate income tax

rates in the country. The revenue-neutral carbon

tax is designed to maintain this balance, as the rate

changes. Every dollar raised through the carbon

tax is given back to people and business through

tax reductions.

Achieving economic and environmental outcomes

is important and requires ongoing attention.

Recently, emissions began to rise again, and B.C.

is revitalizing its plan to address these challenges.

B.C.’s Carbon Tax

The carbon tax, introduced in 2008 at

$10 per tonne of CO2e, was increased

gradually by $5/tonne annually until

it reached $30/tonne in 2012. B.C. has

committed to keep the rate at $30/tonne

until 2018.

A ‘revenue-neutral carbon tax’ means that all

carbon tax revenues collected by government

are returned to British Columbians in the form

of personal and business tax measures:

» Low income climate action tax credit

» Five per cent reduction in first two

personal income tax rates

» Northern and rural home owner benefit

of $200

» General corporate income tax rate

reduction

» Small business corporate income tax

rate reduction

» industrial property tax credit

6

Elgie, Stewart, and Jessica McClay. 2013. “BC’s Carbon Tax Shift Is

Working Well after Four Years (Attention Ottawa).” Canadian Public

Policy 39(2):1–10.

[ 11 ]

B.C.’S GREENHOUSE GAS EMISSIONS

In 2013, British Columbia’s emissions were 62 million tonnes (mt) of CO2e net after offsets. Most emissions

fall into three categories: transportation, the built environment and industry. Each offers opportunities

for reductions. B.C. can also store or sequester carbon, for example, in forests or underground.

TRANSPORT

Personal 13.3%

Commercial 23.9%

BUILT ENVIRONMENT

Residential 6.8%

Commercial 4.0%

Waste 7.5%

INDUSTRY

Fossil Fuel Production 18.2%

Forestry, Mining, Other 20.0%

Electricity 1.3%

DEFORESTATION

Deforestation 4.9%

FOREST MANAGEMENT

Offsets -2.5%

OFFSETS 1.6 MT 2013 GHG EMISSIONS: 64.0 MILLION TONNES OF CO2e (The breakdown)

[ 12 ]

Building Our Climate Leadership Plan

All of B.C.’s greenhouse gas emission sources fall into one of the following areas of action. This document

outlines measures in each of these areas to reduce emissions or adapt to changes underway and set

us on a confident path forward towards our 2050 goals.

AREA OF ACTION THE FOCUS THE GOAL

What We Value

How we consider the cost

of climate change to society

when making decisions.

The cost of climate change for

society is considered whenever

British Columbians make

important decisions.

The Way We Live

Buildings, community

design, and waste.

Communities are thriving

and resilient in the face of

climate change.

The Way We Travel

Movement of people

and goods.

People and goods move

efficiently and reliably, using

clean transportation.

The Way We Work

Business, industry, products

and services.

B.C.’s economy remains strong, and

jobs continue to be created, while

greenhouse gas emissions fall.

For more information on current climate action, please visit

http://www2.gov.bc.ca/gov/content/environment/climate-change

[ 13 ]

WHAT WE VAL UE WHAT WE VAL UE

Goal: The cost of climate change for society is considered whenever British Columbians make

important decisions.

Current State

PUTTING A PRICE ON CARBON

In 2008, British Columbia introduced its broad-

based carbon tax to encourage people to reduce

fossil fuel use. The current carbon tax rate is

$30 per tonne of carbon dioxide equivalent (CO2e)

emissions. Because the tax is revenue neutral,

all revenues are returned to British Columbians

through personal and business tax reductions.

At the same time, B.C. implemented further carbon

pricing through its Carbon Neutral Government

leadership commitment. This was achieved through

measuring, reducing and reporting on public sector

emissions, and through the purchase of carbon

offsets that fund provincial climate action projects

to achieve carbon neutrality.

British Columbia met its first interim target of

reducing emissions by six per cent below 2007 levels

by 2012, while the economy grew, proving that the

environment and economy can advance together.

Climate Action Highlights:

»

B.C.’s carbon tax is serving as an example

worldwide for carbon pricing. It applies to

combustion of fossil fuels and is the most

comprehensive of its kind, covering over

70 per cent of provincial emissions. The tax

revenue is used for low-income tax credits

and broad-based tax cuts.

»

B.C. was the first jurisdiction in North America to

commit to carbon neutrality in its public sector

operations, providing leadership for clean

technology and emission reduction.

ENVIRONMENTAL CHANGE IN BRITISH COLUMBIA

TEMPERATURE: Average temperature

has increased over all of B.C. since 1900

(1.4°C per century).

PRECIPITATION: Average

precipitation increased over most

of southern B.C. (1900 2013).

GLACIERS: All glaciers in B.C.

retreated from 1985 to 2005.

SEA LEVEL: Average sea level has

risen along most of the B.C. coast

over the past 95 years.

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MANAGING CLIMATE RISKS

In 2010, we released our first adaptation strategy –

identifying high-level priorities for action. Since

then, across the province we have been taking

action to identify risks, monitor changes and

develop adaptation strategies.

Climate Action Highlights:

» B.C. has assessed risks in several key sectors

including agriculture, forestry, mining, oil and

gas, transportation, flood protection

and hydroelectricity.

» Government has developed guidance on sea

dike design and coastal development, enabling

local governments and qualified professionals

to better protect people, buildings and

infrastructure from sea-level rise.

» We have created a suite of tools to help local

governments manage climate-related risk

in water and watershed planning, land use

planning, infrastructure development and

urban forests.

Adaptation to reduce risks from changing

conditions and extreme events is most effective

when it involves a portfolio of actions, mechanisms

and strategies. In many cases, we already see the

impacts of climate change and know what we need

to do. We also need to explore further the potential

risks across the province and implement plans that

will reduce these risks and improve our resilience.

WHAT WE HEARD FROM YOU

Climate Leadership Discussion Paper survey respondents identified “What We Value” as the top priority in

the short- and long-term. The goal envisions that the cost of climate change for society is considered whenever

British Columbians make important decisions.

In particular, respondents supported:

» Improving the affordability of solutions for consumers and businesses to address climate change

» Expanding the use of carbon pricing to stimulate decisions that reduce emissions

» Using regulations and incentives to encourage considering the cost of climate risks in important

decisions

» Setting targets by emission types (e.g. industry, transportation)

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CLT RECOMMENDATIONS SNAPSHOT: TARGETS, REVIEWS, INTERGOVERNMENTAL RELATIONS CLT RECOMMENDATIONS SNAPSHOT: TARGETS, REVIEWS, INTERGOVERNMENTAL RELATIONS

» Re-affirm 2050 GHG reduction target of 80 per cent below 2007 levels (#1)

» Set new 2030 target of 40 per cent below 2007 levels (#2)

» Set 2030 sectoral targets for transportation, industry and the built environment (#3)

» Review the Climate Leadership Plan and policies at least every 5 years (#32)

» Review integration of carbon tax with a cap and trade framework for the B.C. context if majority of

provinces opt for carbon pricing via emissions trading (#29)

» Work with federal, provincial and other North American governments to achieve parity with B.C’s

climate policies (#30)

For the CLT’s report with the full text of each recommendation, go to: engage.gov.bc.ca/climateleadership

CLT RECOMMENDATIONS SNAPSHOT: FISCAL POLICY

» Lower PST and eliminate PST on electricity, supported by incremental carbon tax (#4 and #7a)

» Increase the carbon tax in 2018 by $10/yr, maintain certain current tax reductions, and target tax credits

and other mechanisms to emissions-intensive, trade exposed sectors and vulnerable groups (#5)

»

Expand carbon tax coverage to all GHG emission sources in B.C. after 5 years (#6)

»

Use incremental tax revenue for technology and innovation and local government projects resulting

in reductions (#7b and #7c)

For the CLT’s report with the full text of each recommendation, go to: engage.gov.bc.ca/climateleadership

CLT RECOMMENDATIONS SNAPSHOT: ADAPTATION

» Amend the Environmental Assessment Act to include the social cost of carbon (#11)

» Update forest and agriculture policy, regulation and protected areas strategies to account for climate

change impacts (#16)

»

Update by 2020 hazard maps for all climate related hazards (#24a)

»

Invest in sufficient monitoring systems to ensure the change in climate can be managed effectively

(#24b)

»

Develop a policy framework to guide government's management of the risks associated with a

changing climate (#24c)

»

Increase communications to public (#24d)

»

Use First Nations traditional knowledge when appropriate as part of hazard mapping information (#25a)

»

Resource the research of climate change impacts on the inherent and treaty rights of indigenous people

(#25b)

For the CLT’s report with the full text of each recommendation, go to: engage.gov.bc.ca/climateleadership

[ 16 ]

THE WAY WE LIVE THE WAY WE LIVE

Goal: Communities are thriving and resilient in the face of climate change.

Current State

Emissions from the built environment (buildings,

deforestation and waste) represent 23 per cent

of total emissions, down 8.5 per cent since 2007.

Deforestation is the permanent change from forest

to non-forest land, often the result of urban sprawl.

COMMUNITY PLANNING

Eighty-eight per cent of British Columbians live in

urban settings and 12 per cent live in rural areas

and communities. We often face similar issues, yet

solutions have differed by region. Regardless of

where we live, decisions made at the community

level play a critical role in keeping the province on

track to meet its targets.

Climate Action Highlights:

Three provincial policies are helping to support

climate action innovation at the community level:

» the requirement for greenhouse gas reduction

targets in local government Official Community

Plans and Regional Growth Strategies

» the commitments made under the voluntary

Climate Action Charter to work towards carbon

neutral operations, measure community-wide

emissions, and create complete compact,

energy-efficient communities

» the Climate Action Revenue Incentive Program,

which returns carbon tax to communities for

greenhouse gas reduction projects.

2013 BUILDINGS, DEFORESTATION, AND WASTE EMISSIONS

- COMPRISE 23.3 PER CENT OF B.C.’S EMISSIONS

- DECREASED BY 8.5 PER CENT SINCE 2007

Residential,

Other sectors,

76.7%

6.8% Commercial,

4.0%

Waste, 7.5%

Deforestation,

4.9%

With these policies in place in B.C. since 2008, we

have seen the development of more energy-efficient

buildings, district energy systems, improved forestry

and landfill management practices, and organic

waste diversion. Communities have made good

progress and are demonstrating the possibilities

of what is achievable.

New efforts need to accelerate the transition

to compact communities, zero emission

buildings, improved waste diversion and

conversion of waste to biogas. The CLT

recommends reinvigorating the relationship

between the B.C. government and municipalities

to make further progress on shared goals.

[ 17 ]

BUILDINGS

WASTE

In 2013, greenhouse gas emissions from buildings

totalled 6.9 million tonnes (10.8 per cent of B.C.’s total).

Climate Action Highlights:

» The Building Code and Energy Efficiency Act

are improving standards for residential and

commercial buildings, and for equipment

such as heating systems, water heaters,

boilers and appliances.

» Energy efficiency programs like LiveSmart and

the Home Energy Retrofit Offer encourage

efficiency upgrades.

» Government, through its carbon neutral

commitment and LEED Gold standards for new

buildings, helps drive energy conservation,

innovation and leadership across government,

schools, hospitals, universities and colleges.

Accelerating the uptake of district energy systems

and technologies to support energy efficiency and

increased use of renewables will transform this sector.

British Columbians produced 4.8 million tonnes

of greenhouse gas from waste in 2013 (7.5 per cent

of B.C.’s total).

Climate Action Highlights:

»

The Landfill Gas Management Regulation

requires large landfill operators to increase the

amount of landfill gas capture (methane) by

2016. Relevant operators are on pace to install

systems that meet the requirement and reduce

methane emissions.

»

About 60 per cent of communities have

implemented curbside organic diversion

programs.

We need to reduce organic waste across the

entire value chain – from less food waste to more

diversion of organics to more efficient landfills to

the conversion of waste into renewable fuels.

WHAT WE HEARD FROM YOU

Climate Leadership Discussion Paper survey respondents identified “The Way We Live” as a key priority for

our 2050 target. This goal envisions thriving and resilient communities in the face of climate change.

In particular, respondents supported:

» Regulations and incentives for greener buildings

» Support for local food production and low carbon businesses

» Less travel and energy use to be a priority in community planning

[ 18 ]

CLT RECOMMENDATIONS SNAPSHOT: COMMUNITIES CLT RECOMMENDATIONS SNAPSHOT: COMMUNITIES

» Update the Climate Action Charter to align provincial and community goals (#21)

» Create a waste-to-resource strategy that reduces GHG emissions from organic waste and landfills (#22)

For the CLT’s report with the full text of each recommendation, go to: engage.gov.bc.ca/climateleadership

CLT RECOMMENDATIONS SNAPSHOT: BUILDINGS

»

Require new public sector buildings to use more materials that sequester carbon and meet most of its

annual energy needs by on-site renewable energy starting in 2016 (#20a)

»

Require new buildings to use more materials that sequester carbon and meet most of their annual

energy needs by on-site renewable energy, through the building code (#20b)

»

Encourage retrofits that reduce GHG emissions in existing buildings through programs (e.g. on-bill

financing) (#20c)

»

Implement standards that support high-efficiency building equipment and appliances (#20d)

For the CLT’s report with the full text of each recommendation, go to: engage.gov.bc.ca/climateleadership

[ 19 ]

THE WAY WE TR AVEL THE WAY WE TR AVEL

Goal: People and goods move efficiently and reliably, using clean transportation.

Current State

Transportation contributes 37 per cent of B.C.’s

emissions, down 1.5 per cent since 2007.

Climate Action Highlights:

»

The low carbon fuel requirement mandates a

10 per cent reduction in the carbon content

of fuels by 2020, and 5 per cent renewable

content in gasoline (4 per cent in diesel). This

encourages innovation and a growing diversity

of commercially available low carbon fuels.

In 2012, this led to nearly 1 million tonnes of

greenhouse gas emissions reductions.

»

Partnerships such as the Pacific Coast

Collaborative can address competitiveness across

jurisdictions while accelerating adoption of clean

technologies through zero emission vehicle

commitments and low carbon fuel standards.

Almost all vehicles will eventually need to run on

clean fuels to reduce transportation emissions to

near zero by 2050.

2013 TRANSPORTATIONS EMISSIONS

- COMPRISE 37.2 PER CENT OF B.C.’S EMISSIONS

- DECREASED BY 1.5 PER CENT SINCE 2007

Other sectors,

63%

Commercial

Transportation,

24%

Personal

Transportation,

13%

PERSONAL TRANSPORTATION

Personal transportation makes up 13 per cent of

B.C.’s emissions.

Climate Action Highlights:

» An incentive program for clean energy vehicles

(CEV) fuelled by electricity, natural gas or

hydrogen was introduced in 2011. Renewed

in 2015, the CEV program has been highly

successful, keeping B.C. among leading provinces

in clean energy vehicle sales per capita.

» The BC SCRAP-IT program removes thousands

of polluting vehicles from the road through

incentives for transit, car sharing, bikes, and

most recently, the purchase of zero emission

electric vehicles.

» Through a cost-sharing program with local

governments, over 100 cycling infrastructure

projects have been completed. Between 2015

and 2017, the B.C. government has committed

$18 million to the BikeBC program.

» As part of the expansion of transit infrastructure

in the Lower Mainland, the Canada Line opened

in 2009 and the Evergreen Line is due to open

in fall 2016.

For personal vehicles, reducing per capita vehicle

kilometres traveled, improving vehicle fuel

efficiency and lowering the carbon intensity

of transportation fuels are critical.

[ 20 ]

COMMERCIAL AND HEAVY DUTY

TRANSPORTATION

Twenty-four per cent of B.C.’s emissions come

from this sector. On-road heavy duty vehicles are

among the largest and fastest growing sources

of greenhouse gas, comprising about 11 per cent

of B.C.’s total. These emissions are expected to

increase as freight and new industrial projects grow.

Other commercial transportation emission sources

include domestic aviation, marine and railways.

Climate Action Highlights:

» B.C.’s low carbon fuel standard is driving down

emissions in this sector.

» Conversion of heavy duty vehicles and buses

to compressed natural gas (CNG) and liquefied

natural gas (LNG) have decreased emissions in

commercial fleets.

»

BC Ferries is building three new vessels that will

have dual fuel propulsion systems (LNG and

diesel), and is retrofitting its two Spirit Class

ferries to have dual fuel propulsion.

»

Clean electric shore power reduces greenhouse

gas emissions at the ports of Prince Rupert

and Vancouver.

As our economy grows, so too will our

transportation needs. It will be important to

maximize the efficiency of the entire goods

movement chain and support this sector to

move quickly to low carbon fuels.

WHAT WE HEARD FROM YOU

Climate Leadership Discussion Paper survey respondents identified “The Way We Travel” as an

important priority in the near term. This goal envisions people and goods moving efficiently and reliably,

using clean transportation.

In particular, respondents supported:

» More clean, coordinated transportation such as public transit and shared travel

» Expanded regulations and incentives to encourage use of cleaner vehicles and fuels

CLT RECOMMENDATIONS SNAPSHOT: TRANSPORTATION

» Establish Zero Emission Vehicle targets for the sale of new light duty vehicles for 2020, 2025 and 2030

(#19a)

» Increase the Low Carbon Fuel Standard (LCFS) to 20 per cent by 2030 (#19b)

» Broaden the LCFS coverage to include all vehicle fuel use with the exception of aviation fuel (#19c)

» Support increased commercial transport efficiency (size of vehicles) and natural gas/propane

conversions (#19d)

» Establish revenue neutral PST for all vehicles based on grams of CO2 per km (#19e)

» Support increased use of public transit and other mobility options that reduce GHG emissions (#23)

For the CLT’s report with the full text of each recommendation, go to: engage.gov.bc.ca/climateleadership

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THE W AY WE W ORK THE W AY WE W ORK

Goal: B.C.’s economy remains strong and jobs continue to be created, while greenhouse gas emissions fall.

Current State

Almost 40 per cent of B.C.’s greenhouse gas

emissions come from the way we work. Since 2007,

B.C. has been successful in stabilizing emissions

in the industrial sector. Government has also

encouraged increased sequestration of carbon in

our forests. The challenge is to reduce emissions

even further as we look to meet our emission

reduction targets, while developing the LNG

industry and maintaining B.C.’s competitiveness.

2013 INDUSTRY, FORESTRY AND AGRICULTURAL EMISSIONS

- COMPRISE 39.5 PER CENT OF B.C.’S EMISSIONS

- DECREASED BY 0.4 PER CENT SINCE 2007

Electricity, 1.3%

Agriculture, 3.6%

Fossil Fuel Production,

18.2%

Other sectors,

60.5%

Other Industry,

16.4%

FOSSIL FUEL PRODUCTION

Emissions from fossil fuel production make up

about 18.2 per cent of B.C.’s total. Natural gas

dominates the sector. Emissions depend on

production levels, the source of the natural gas,

fuel choice for processing, energy efficiency and

level of fugitive emissions.

Since 2008, B.C.’s natural gas production has grown

by about 40 per cent. Over the same period,

global competition has increased and government

has introduced strong climate policies. B.C.’s

experience continues to demonstrate that climate

leadership can be upheld without compromising

competitiveness and economic growth.

Climate Action Highlights:

» B.C. has eliminated all routine flaring at oil

and gas wells and production facilities.

» The carbon tax covers about 64 per cent of oil

and gas sector emissions, encouraging industry

to pursue emission reduction opportunities.

Several new gas plants have already opted to

electrify with clean grid electricity.

» To meet the commitment to have the cleanest

LNG facilities in the world, B.C. has legislated

that LNG operations meet a world-leading

greenhouse gas emissions intensity benchmark

of 0.16 metric tonnes of CO2e per metric tonne

of LNG produced.

The challenge is to deliver fuels to growing markets

while meeting B.C.’s emission reduction targets. The

Venting and Flaring Guideline, improved energy

efficiency processes such as waste heat recovery,

methane leak reductions, and electrification

of natural gas facilities are all helping to curb

emissions as the industry grows. Further work in

these areas, together with innovations such as

carbon capture and storage, will be needed to

make deeper emission cuts.

[ 22 ]

OTHER INDUSTRY

Cement production, mining, smelting, forestry and

manufacturing are responsible for 16.4 per cent of

B.C.’s emissions. B.C. has historically strived to ensure

B.C. remains competitive as the province pursues its

climate goals.

Climate Action Highlights:

»

In 2015, government announced a five-year

incentive program that enables B.C. cement

manufacturers to further displace coal with low

carbon fuels, and strive for a 2019 emissions

intensity benchmark that will make B.C.’s

cement among the cleanest in the world.

Currently, two of B.C.’s three plants are in the

top quartile Canada-wide for energy efficiency.

»

Developing offset projects to meet B.C.’s

carbon neutral government commitment has

stimulated investments in greener industrial

processes, such as fuel switching from coal to

waste products and biomass, and equipment

efficiency upgrades in the production of

lumber, pulp and paper, and cement.

»

In 2013, forestry offset projects removed

over 1.5 million tonnes of CO2e from the

atmosphere, creating jobs and unlocking new

revenue streams for government, First Nations,

communities, forest companies and private

land owners.

»

Roughly half of the total emissions from these

sectors are covered by the carbon tax.

B.C. wants to pursue policies that both achieve

reduction goals and lead to companies’ cost

savings through improved efficiencies and

technology adoption.

AGRICULTURE

Agriculture emissions account for almost 4 per cent

of provincial emissions, arising from manure

management, agricultural soils, and enteric

fermentation (methane from normal digestion in

animals such as cattle and sheep).

Climate Action Highlights:

» Many of B.C.’s greenhouses have taken steps

to reduce their use of fossil fuels (e.g. through

biomass boilers, thermal curtains and heat

storage systems), supported by provincial offset

standards and carbon pricing.

» Numerous farmers in B.C. are reducing

emissions through implementation of

nutrient and manure management plans

and conservation tillage.

» Many emission reduction opportunities

in agriculture also result in additional new

business opportunities, including the

development and implementation of innovative

systems to recover nutrients and maximize the

value of agricultural byproducts.

ELECTRICITY

Only 1.3 per cent of our emissions come from

electricity generation because of B.C.’s abundant

clean power resources. Electricity sector emissions

come mainly from co-generation plants, remote

communities’ diesel generators, and thermal power

used mainly for peak demand periods.

Climate Action Highlights:

»

The portion of BC Hydro’s power generation

portfolio that comes from clean or renewable

resources currently exceeds 96 per cent, above

the 93 per cent requirement in the Clean Energy

Act. The Act also requires that, by 2020, at least

66 per cent of BC Hydro’s incremental power

demand be met through conservation and

efficiency improvements.

»

The Innovative Clean Energy (ICE) Fund

supports new sources of clean energy and

technologies.

B.C.’s abundant supply of low-carbon electricity

ensures that clean and renewable resources will

continue to provide the vast majority of B.C.’s future

electricity needs and support the electrification of

energy intensive industries.

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WHAT WE HEARD FROM YOU

Climate Leadership Discussion Paper survey respondents identified “The Way We Work” as an important

priority over both the short and long term. This goal focuses on business, industry, products and services,

and envisions a strong economy creating jobs while greenhouse gas emissions fall.

In particular, respondents supported:

» Regulations and incentives to drive innovation and cut emissions

» Aligning new sources of emissions with the climate plan

» Accelerating development of a workforce that excels in a low carbon economy

CLT RECOMMENDATIONS SNAPSHOT: INDUSTRY, ELECTRICITY, LOW CARBON ECONOMY

Natural gas and LNG

» Instruct BC Hydro to develop a strategy to supply clean electricity required for electrification of upstream

natural gas, LNG, and associated infrastructure (#14)

» Set a goal to reduce fugitive and vented methane emissions by 40% within five years, through

regulating best practice leak reduction and repair practices and developing methane reduction and

reporting best practices. After five years, determine if more ambitious action is necessary (#15)

Forestry and Agriculture

» Update forest policy to use more forest residue for energy and increase carbon sequestration (#17)

» Create a task force to review and update carbon management best practices for the agriculture sector (#18)

Electricity

» Change the target for clean energy on the integrated grid to 100% by 2025 (#12)

» Establish a strategy to replace diesel generation in remote communities with reliable, low GHG

electricity (#13)

» Work with First Nations communities and federal agencies to ensure transition to reliable, low GHG

electricity service in communities currently dependent on diesel generation (#26)

Low-Carbon Economy

» Create a task force with expertise to research growth potential in low carbon economy (#10)

» Ensure the First Nations clean energy business fund effectively enables new business opportunities (#27)

» Review current offset policy to determine if changes are required to support the Climate Leadership

Plan (#28)

For the CLT’s report with the full text of each recommendation, go to:

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[ 24 ]

Summary

Now it’s your chance to provide input once again. Our decisions today affect how we will live tomorrow. That’s

why it is very important that we all have a voice in shaping that future. This document is posted for a two-month

consultation period, ending March 25, 2016. Please read it and provide your say.

A final Climate Leadership Plan will be released in Spring 2016.

How to Participate

To share your views by March 25, 2016:

» Go to engage.gov.bc.ca/climateleadership to participate.

» Individuals and organizations who wish to send additional information can email: climateleadershipplan@

gov.bc.ca. If possible, please use the following headings to organize your feedback comments:

» What We Value

– Carbon pricing and general financial mechanisms

– Climate risk management and adaptation

» The Way We Live – Community and built environment

» The Way We Travel – Transportation

» The Way We Work – Industry, business and natural resources

» Respond by post to: Climate Leadership Consultation, Ministry of Environment Climate Action Secretariat

P.O. Box 9486, Stn Prov Govt, Victoria, B.C. V8W 9W6

Please note that all separate attachments submitted will be posted publicly on the government website.

GOVERNMENT WELCOMES YOUR FEEDBACK ON THIS

DOCUMENT “BUILDING B.C.’s CLIMATE LEADERSHIP

PLAN” FOR A TWO-MONTH CONSULTATION PERIOD,

ENDING MARCH 25, 2016 AT NOON.

To share your views please submit your feedback by email to:

climateleadershipplan@gov.bc.ca

Also, visit engage.gov.bc.ca/climateleadership for more ways

to participate online.

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FOR MORE INFORMATION VISIT THE WEBSITE:

ENGAGE.GOV.BC.CA/CLIMATELEADERSHIP/