



Climate Action Revenue Incentive (CARIP) Public Report for 2018



The Region of BC's Best

Local Government: Thompson-Nicola Regional District

Report Submitted by:

Name: Douglas Rae

Role: Director of Finance

Email: drae@tnrd.ca

Phone:

Date:

The Thompson-Nicola Regional District has completed the 2018 Climate Action Revenue Incentive Program (CARIP) Public Report as required by the Province of BC. The CARIP report summarizes actions taken in 2018 and proposed for 2019 to reduce corporate and community-wide energy consumption and greenhouse gas emissions (GHG) and reports on progress towards achieving carbon neutrality.

2018 BROAD PLANNING ACTIONS

Broad Planning Actions

Broad Planning refers to high level planning that sets the stage for GHG emissions reductions, including plans such as Official Community Plans, Integrated Community Sustainability Plans, Climate Action Plans or Community Energy Emissions Plans. Land use planning that focuses on Smart Growth principles (compact, complete, connected, and centred) plays an especially important role in energy and GHG reduction.

Community-Wide Broad Planning Actions Taken in 2018	
	n/a
Community-Wide Broad Planning Actions Proposed for 2019	
	Development of a new North Thompson Official Community Plan to include dealing with challenges associated with decreased population and efficient access to services
Corporate Broad Planning Actions Taken in 2018	
	n/a
Corporate Broad Planning Actions Proposed for 2019	
	n/a
Broad Planning	
What is (are) your current GHG reduction target(s)?	The TNRD Regional Growth Strategy calls for a reduction of 10%, in comparison to 2007 levels, by 2020; and a reduction of 33%, in comparison to 2007 levels, by 2050.
Are you familiar with your local government's community energy and emissions inventory (e.g. CEEI or another inventory)?	Yes
Q 14 What plans, policies or guidelines govern the implementation of climate mitigation in your community?	
• Community Energy and Emissions Plan	No
• Integrated Community Sustainability Plan	No
• Community- Wide Climate Action Plan	No
• Official Community Plan	Yes
• Regional Growth Strategy	Yes
• Do not have a plan	No
• Other:	No
Does your local government have a corporate GHG reduction plan?	No

2018 BUILDING AND LIGHTING ACTIONS

Building and Lighting Actions

Low-carbon buildings use the minimum amount of energy needed to provide comfort and safety for their inhabitants and tap into renewable energy sources for heating, cooling and power. These buildings can save money, especially when calculated over the long term. This category also includes reductions realized from energy efficient street lights and lights in parks or other public spaces.

Community-Wide Building and Lighting Actions Taken in 2018 + Additional Actions	
	Through the Federal Gas Tax – Community Works Fund the TNRD entered into contribution agreements with four (4) non-governmental organizations to fund energy efficiency upgrades at community use buildings.
	The TNRD also contributed partial funding to install a biomass energy system at a municipally owned arena. The Regional District partially funds the arena on an ongoing basis in a partnering arrangement with the municipality.
Community-Wide Building and Lighting Actions Proposed for 2019	
	Continue to provide energy efficiency upgrade funding for eligible non-governmental organizations that provide services for public use and benefit.
	Launch a thermal reader loan out program through the TNRD Library system. Patrons can sign out thermal reader, which will assist in identifying areas of energy loss in their homes and take appropriate action.
Corporate Building and Lighting Actions Taken in 2018	
	Upgraded community water system pumps to more energy efficient units.
	Energy efficiency upgrades (lighting and insulation) upgrades for two rural TNRD owned fire departments.
Corporate Building and Lighting Actions Proposed for 2019	
	Upgrade of sodium lighting at the TNRD Civic Building to energy efficient components.
	Commit to ensuring all upgrades to TNRD owned infrastructure will result in a reduction in ghg emissions.
	In 2019 in partnership with the City of Kamloops, the TNRD will launch lending of thermal cameras through TNRD libraries. Each camera will be checked out with a small bag of weather stripping donated by Fortis BC so residents can take before and after photographs. In addition, residents will be provided with information on how residents can apply for grants for home retrofit projects. Cameras will be available for both iOS and Android operating systems.
Building and Lighting	
The Province has committed to taking incremental steps to increase energy-efficiency requirements in the BC Building Code to make buildings net-zero energy ready by 2032. The BC Energy Step Code--a part of the BC Building Code--supports that effort	
Is your local government aware of the BC Energy Step Code?	Yes

Is your local government implementing the BC Energy Step Code ?	Not yet, but are engaging stakeholders
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P5 2018 ENERGY GENERATION ACTIONS

Energy Generation Actions

A transition to renewable or low-emission energy sources for heating, cooling and power supports large, long-term GHG emissions reductions. Renewable energy including waste heat recovery (e.g. from biogas and biomass), geo-exchange, micro hydroelectric, solar thermal and solar photovoltaic, heat pumps, tidal, wave, and wind energy can be implemented at different scales, e.g. in individual homes, or integrated across neighbourhoods through district energy or co-generation systems.

Community-Wide Energy Generation Actions Taken in 2018	
	Provided partial funding to a member municipality for the installation of a biomass energy system for a community arena.
Community-Wide Energy Generation Actions Proposed for 2019	
	n/a
Corporate Energy Generation Actions Taken in 2018	
	n/a
Corporate Energy Generation Actions Proposed for 2019	
	n/a
Energy Generation	
Is your local government developing, or constructing a <ul style="list-style-type: none"> • district energy system • renewable energy system • none of the above 	No No Yes
Is your local government operating a <ul style="list-style-type: none"> • district energy system • renewable energy system • none of the above 	No No Yes
Is your local government connected to a district energy system that is operated by another energy provider?	No
Are you familiar with the 2018 List of Funding Opportunities for Clean Energy Projects Led by First Nations and Local Governments?	Yes

2018 GREENSPACE/NATURAL RESOURCE PROTECTION ACTIONS

Greenspace Actions

Greenspace/Natural Resource Protection refers to the creation of parks and greenways, boulevards, community forests, urban agriculture, riparian areas, gardens, recreation/school sites, and other green spaces, such as remediated brownfield/contaminated sites as well as the protection of wetlands, waterways and other naturally occurring features.

Community-Wide Greenspace Actions Taken in 2018	
	n/a
Community-Wide Greenspace Actions Proposed for 2019	
	n/a
39 Corporate Greenspace Actions Taken in 2018	
	n/a
Corporate Greenspace Actions Proposed for 2019	
	n/a
Greenspace	
Does your local government have urban forest policies, plans or programs?	No
Does your local government have policies, plans or programs to support local food production?	No

2018 SOLID WASTE ACTIONS

Solid Waste Actions

Reducing, reusing, recycling, recovering and managing the disposal of the residual solid waste minimizes environmental impacts and supports sustainable environmental management, greenhouse gas reductions, and improved air and water quality.

Community-Wide Solid Waste Actions Taken in 2018	
	Implemented Recycle BC depots (for packaging and printed paper) at all TNRD run facilities. This also included a region-wide communication plan regarding the changes to the existing recycling system.
	Continuation of region-wide waste reduction education program, which included 32 community events and presentations to schools and community groups. A total of \$94,400 was spent on

	various media advertisements and development of education/promotional materials targeting waste reduction.
	11 recycling education workshops were held at TNRD libraries
	Sold a total of 211 backyard composters and food digesters (green cones) in our continued effort to encourage source reduction of organic waste, these unit sales are at a subsidized rate to residents and in select cases given free of charge to community groups and schools for demonstration purposes.
	To help keep harmful chemicals out of our landfills two Household Hazardous Waste Round-up events were held, one in the City of Merritt and the other in the City of Kamloops on May 12 th and June 2 nd , respectively.
	Continue to partner with provincial stewardship agencies to provide a one-stop-shop for disposal of garbage and recyclables at TNRD run transfer stations.
	Supported community clean-up initiatives and coordinated clean-up of problematic illegal dump sites. A total of approximately \$25,000 was spent on community and illegal dumping clean-ups
	Battery recycling services established in TNRD libraries.
	A teen book swap held at the North Kamloops Library, saw the reuse of books and kept them from the landfill.
Community-Wide Solid Waste Actions Proposed for 2019	
	Host 3 household hazardous waste collection events in Kamloops, Ashcroft, and Merritt. Also plan to establish a year round a regional household hazardous waste depot in Kamloops.
	Increase waste reduction promotion and education activities region wide through newly created position of waste reduction coordinator
	Construct new Eco-Depot in Cache Creek Area to increase recycling and diversion opportunities to local residents and businesses
Corporate Solid Waste Actions Taken in 2018	
	Continuation of GHG reduction projects (methane oxidation) at TNRD operating landfills and select closed landfills. An estimated 148 tonnes of CO2 equivalent was removed from the closed landfills and an estimated 571 tonnes of CO2 equivalent was reduced at operating landfills.
	Board approval of a new 10-year Regional Solid Waste Management Plan (RSWMP). The RSWMP has been submitted to Minister of Environment.
	Increased efficiency of landfill operations and capacity utilization by converting Heffley Creek landfill to a Construction/Demolition waste only landfill and diverted all household garbage to Mission Flats landfill site.
	Continue methane capture (reducing GHG) at both operating and closed TNRD landfills.
Corporate Solid Waste Actions Proposed for 2019	
	Begin work on policy recommendations in the RSWMP regarding disposal bans on recyclables in waste stream from the Industrial/Commercial/Institutional (ICI) sources.

Solid Waste	
Does your local government have construction and demolition waste reduction policies, plans or programs?	Yes
Does your local government have organics reduction/diversion policies, plans or programs?	Yes

2018 TRANSPORTATION ACTIONS

Transportation Actions

Transportation actions that increase transportation system efficiency emphasize the movement of people and goods, and give priority to more efficient modes, e.g. walking, cycling and public transit, can contribute to reductions in GHG emissions and more livable communities.

Community-Wide Transportation Actions Taken in 2018	
	8 public meetings were held using Facebook Live. This not only reduced transportation ghgs to attend the meeting, it also provided a platform for interested residents to view the event at their convenience.
	The TNRD Bookmobile also served as a mobile polling station for the 2018 local government elections. Bringing mobile voting opportunities to residents living in rural and remote communities reduces ghg related to transportation on voting day, it also increases opportunities for community engagement for those that cannot travel.
	Employment interviews were conducted via Skype, thus directly mitigating ghg emission related to transportation.
	Library services recorded 150,106 circulations/uses of eBooks, eAudiobooks and databases, an increase of 11% over 2017. Reduces patron travel to check-out materials.
	Library services added Centre for Equitable Library Access database which generated 4344 electronic circulations
	Lynda.com database was launched. This database supports online learning, rather than have to commute to attend classes.
	134 extra stops were added to the mobile library service, thus reducing travel by bringing library services to not only rural communities, but also urban neighbourhoods, reducing the need to residents to travel to the library. The mobile library served 2080 patrons with 4450 circulations.
Community-Wide Transportation Actions Proposed for 2019	
	n/a
Corporate Transportation Actions Taken in 2018	
	A new more fuel efficient mobile library was launched, replacing the 2012 vehicle.
Corporate Transportation - Actions Proposed for 2019	
	Coordinate bike to work week.

Transportation	
<p>Does your local government have policies, plans or programs to support:</p> <ul style="list-style-type: none"> • Walking • Cycling • Transit Use • Electric Vehicle Use • Other (please specify) - Unlike municipalities, regional districts do not have jurisdiction over roads, sidewalks and many other transportation related matters. However, our 11 OCPS have climate change policies calling for new developments to be designed in a compact walkable layout. OCPs also encourage and support non-vehicular travel, walking trails, energy efficient vehicles and alternative modes of transportation to help reduce automobile dependence (pedestrian first, vehicle last) and ride sharing. In addition, our RGS encourages compact community design in order to save transportation and energy costs and to provide more opportunities for walking, cycling and other forms of alternative transportation. Many of the programs above are enacted by our member municipalities where there are pockets of denser populations, but not in the more sparsely populated rural areas we are responsible for. 	<p>No No No No Yes</p>
<p>Does your local government have a Transportation Demand Management (TDM) strategy (e.g. to reduce single-vehicle occupancy trips, increase travel options, provide incentives to encourage individuals to modify travel behaviour)?</p>	<p>No</p>
<p>Does your local government integrate its transportation and land use planning?</p>	<p>Yes</p>

2018 WATER AND WASTEWATER ACTIONS

Water and Wastewater Actions

Managing and reducing water consumption and wastewater is an important aspect of developing a sustainable built environment that supports healthy communities, protects ecological integrity, and reduces GHG emissions.

Community-Wide Water and Wastewater Actions Taken in 2018	
	Conservation and education programs continuing. This is the third year of enhanced water conservation bylaw enforcement, which has help reduce peak day and total water consumption.
	Initiated 3.7 million dollar TNRD-wide water metering program on all 11 water utilities. Project manager position filled in Dec 2018.
Community-Wide Water and Wastewater Actions Proposed for 2019	
	Begin meter installations for TNRD-wide water metering program on all 11 water utilities.

	Pilot program utilizing trenchless technology for water service line repair/replacement when crossing roadways. Intent is to reduce greenhouse gas emissions associated with paving and associated trucking.
Corporate Water and Wastewater Actions Taken in 2018	
	Complete Water Utility Master Plans for all 11 water and 2 wastewater utilities.
Corporate Water and Wastewater Actions Proposed for 2019	
	Committed to exploring energy efficiency opportunities for existing infrastructure.

Water Conservation	
Does your local government have water conservation policies, plans or programs?	Yes

2018 CLIMATE CHANGE ADAPTATION ACTIONS

This section of the CARIP survey is designed to collect information related to the types of climate impacts local governments are experiencing and how they are being addressed.

Please identify the THREE climate impacts that are most relevant to your Local Government.	
<ul style="list-style-type: none"> • Warmer winter temperatures reducing snowpack • Changes to temperature and precipitation causing seasonal drought • Heatwaves impacting population health • Increased temperatures increasing wildfire activity • Increased temperatures affecting air quality • Changing temperatures influencing species migration and ecosystem shifts • Changing temperatures influencing ecosystem shifts • Extreme weather events contributing to urban and overland flooding • Sea level rise and storms causing coastal flooding and/or erosion 	Yes No No Yes No No No Yes No
Other (please specify):	
In 2018 has your local government addressed the impacts of a changing climate using any of the following?	
Risk and Vulnerability Assessments	Yes
Risk Reduction Strategies	No
Emergency Response Planning	Yes
Asset Management	Yes
Natural/Eco Asset Management Strategies	No
Infrastructure Upgrades (e.g. stormwater system upgrades)	Yes
Beach Nourishment Projects	No
Economic Diversification Initiatives	No
Strategic and Financial Planning	Yes

Cross-Department Working Groups	No
Official Community Plan Policy Changes	No
Changes to Zoning and other Bylaws and Regulations	No
Incentives for Property Owners (e.g. reducing storm water run-off)	No
Public Education and Awareness	No
Research	No
Mapping	No
Partnerships	No

Other (please specify):

Climate Change Adaptation Actions Taken in 2018

Please elaborate on key actions and/or partnerships your local government has engaged in to prepare for, and adapt to a changing climate. Add links to key documents and information where appropriate.

n/a

Climate Change Adaptation Actions Proposed for 2019

n/a

For more information please contact

The following are key resources that may be helpful to your local government in identifying climate impacts, as well as, strategies, actions and funding to deal with them. For those resources that you have used, please indicate whether they were useful in advancing your work in climate change adaptation?

Innovation

This section provides the opportunity to showcase an innovative *Corporate and/or Community-Wide* GHG reduction and/or climate change adaptation activity that your local government has undertaken and that has had, or has the potential to have, a significant impact. You are welcome to highlight an action that has already been listed.

Projects included here may be featured as success stories on the [B.C. Climate Action Toolkit](#) and/or shared with other local governments to inspire further climate action. Please add links to additional information where possible.

Communities that have conducted innovative initiatives may want to consider making applications to [CEA's Climate and Energy Action Awards](#), [FCM Sustainable Communities Awards](#) or to [FCM's National Measures Report](#).

Community-Wide Innovation Action
n/a
Corporate Innovation Action
n/a
For more information on actions described above contact
n/a

Programs, Partnerships and Funding Opportunities

Local governments often rely on programs, partnerships and funding opportunities to achieve their climate action goals. Please share the names of programs and organizations that have supported your local government's climate actions by listing each entry in the box below separated by a forward slash (e.g. program1/program2).

Mitigation

Mitigation Programs, Partnerships and Funding
n/a

Adaptation

Adaptation Programs, Partnerships and Funding
n/a

2018 CARBON NEUTRAL REPORTING

Local governments are required to report on their progress in achieving their carbon neutral goal under the [B.C. Climate Action Charter](#). Working with B.C. local governments, the joint Provincial-UBCM Green Communities Committee (GCC) has established a common approach to determining carbon neutrality for the purposes of the Climate Action Charter, including a Carbon Neutral Framework and supporting guidance for local governments on how to become carbon neutral.

Prior to completing this portion of the survey, please ensure that you are familiar with guidance available on the [B.C. Climate Action Toolkit website](#), especially the [Workbook](#) and [Becoming Carbon Neutral: A Guide for Local Governments in British Columbia](#).

Please note: As a result of the BC Recycling Regulation, local governments are no longer required to account for GHG emissions from vehicles, equipment and machinery required for the collection, transportation and diversion of packaging and printed paper, in their annual Climate Action Revenue Incentive Program (CARIP) reports.

Reporting Emissions

Did your local government measure corporate GHG emissions for 2018?	Yes
If your local government measured 2018 corporate GHG emissions, please report the number of corporate GHG emissions from services delivered directly by your local government (in tonnes of carbon dioxide equivalent)	510 tCO ₂ e
If your local government measured 2018 corporate GHG emissions, please report the number of corporate GHG emissions from contracted services (in tonnes of carbon dioxide equivalent)	477 tCO ₂ e
TOTAL A: CORPORATE GHG EMISSIONS FOR 2018 (Direct GHGs + Contracted GHGs)	987 tCO₂e

Reporting Reductions and Offsets

To be carbon neutral, a local government must balance their TOTAL corporate GHG emissions generated in 2018 by one or a combination of the following actions:

- undertake GCC-supported Option 1 Project(s)
- undertake GCC-supported Option 2 Project(s)
- purchase carbon offsets from a credible offset provider

For more information about options to balance or offset corporate GHG emissions please refer to [Becoming Carbon Neutral: A Guidebook for Local Governments in British Columbia](#).

If applicable, please report the 2018 GHG emissions reductions (in tonnes of carbon dioxide equivalent (tCO₂e)) being claimed from any of the following Option 1 GHG Reduction Projects:

OPTION 1 PROJECTS	REDUCTIONS
Energy Efficient Retrofits (in tonnes of carbon dioxide equivalent (tCO ₂ e))	
Solar Thermal (in tonnes of carbon dioxide equivalent (tCO ₂ e))	
Household Organic Waste Composting (in tonnes of carbon dioxide equivalent (tCO ₂ e))	
Low Emission Vehicles (in tonnes of carbon dioxide equivalent (tCO ₂ e))	
Avoided Forest Conversion (in tonnes of carbon dioxide equivalent (tCO ₂ e))	
TOTAL B: REDUCTIONS FROM ALL OPTION 1 PROJECTS FOR 2018	NIL tCO₂e

If applicable, please report the names and 2018 GHG emissions reductions (in tonnes of carbon dioxide equivalent (tCO₂e)) being claimed from Option 2 GHG Reduction Projects:

Option 2 Project Name	REDUCTIONS
Methane Oxidation Beds	
Option 2 GHGs Reduced (tCO ₂ e)	148 tCO₂e
Option 2 Project Name	
Methane Oxidation Landfill Cover	
Option 2 GHGs Reduced (tCO ₂ e)	571 tCO₂e
Option 2 Project Name	
Carry forward of unused reductions from prior years from above projects	275.9 tCO₂e
Option 2 GHGs Reduced (tCO ₂ e)	
TOTAL C: REDUCTIONS FROM ALL OPTION 2 PROJECTS FOR 2018	994.9 tCO₂e

Offsets

If applicable, please report the name of the offset provider, type of project and number of offsets purchased (in tonnes of carbon dioxide equivalent (tCO₂e)) from an offset provider for the 2018 reporting year:

NOTE: DO NOT INCLUDE ANY FUNDS THAT MAY BE SET ASIDE IN A CLIMATE ACTION RESERVE FUND.

Offset Provider Name	OFFSETS
Offsets (tCO2e)	
Offset Provider Name	
Offsets (tCO2e)	
Q 94 TOTAL D: OFFSETS PURCHASED FOR 2018	NIL tCO2e

TOTAL REDUCTIONS AND OFFSETS FOR 2018 (Total B+C+D) = 994.9 tCO2e

Corporate GHG Emissions Balance for 2018

Your local government's Corporate GHG Emissions Balance is the difference between total corporate offsettable GHG emissions (direct + contracted emissions) and the GHG emissions reduced through GCC Option 1 and Option 2 projects and/or the purchase of offsets.

CORPORATE GHG EMISSIONS BALANCE FOR 2018 = (A – (B+C+D)) = -7.9 tCO2e

**If your Corporate GHG Emissions Balance is negative or zero,
your local government is carbon neutral.**

CONGRATULATIONS!

If your local government was carbon neutral in 2018, please record any emissions reductions you will be carrying over for future years and the source of the reductions, including the year they were earned (e.g. organics diversion, 2018 100 tCO2e)

SOURCE OF CARRY OVER EMISSION REDUCTIONS (and year earned)	REDUCTIONS
Methane Oxidation Beds/Methane Oxidation Landfill Cover 2018	7.90 tCO2e
Q 98 BALANCE OF REDUCTIONS ELIGIBLE FOR CARRY OVER TO NEXT YEAR	7.90 tCO2e

Carbon Neutral Reporting	
Q 99 Does your local government set aside funds in a climate reserve fund or similar?	No

GCC CLIMATE ACTION RECOGNITION PROGRAM

Green Communities Committee Climate Action Recognition Program

The joint Provincial-UBCM Green Communities Committee (GCC) is pleased to be continuing the Climate Action Recognition Program again this year. This multi-level program provides the GCC with an opportunity to review and publicly recognize the progress and achievements of each Climate Action Charter (Charter) signatory.

Recognition is provided on an annual basis to local governments who demonstrate progress on their Charter commitments, according to the following:

Level 1 – Demonstrating Progress on Charter Commitments: For local governments who demonstrate progress on fulfilling one or more of their Charter commitments.

Level 2 – Measuring GHG Emissions: For local governments that achieve Level 1, and who have measured their Corporate GHG Emissions for the reporting year and demonstrate that they are familiar with their community’s energy and emissions inventory (i.e. CEEI)

Level 3 – Accelerating Progress on Charter Commitments: For those local governments who have achieved Level 1 and 2 and have demonstrated undertaking significant action (corporately or community wide) to reduce GHG emissions in the reporting year (e.g. through undertaking a GHG reduction project, purchasing offsets, establishing a reserve fund).

Level 4 - Achievement of Carbon Neutrality: For local governments who achieve carbon neutrality in the reporting year.

Q 100 Based on your local government's 2018 CARIP Climate Action/Carbon Neutral Progress Survey, please check the GCC Climate Action Recognition Program level that best applies:

<input type="checkbox"/>	Level 1 – Demonstrating Progress on Charter Commitments	
<input type="checkbox"/>	Level 2 – Measuring GHG Emissions	
<input type="checkbox"/>	Level 3 – Accelerating Progress on Charter Commitments	
<input checked="" type="checkbox"/>	Level 4 - Achievement of Carbon Neutrality	X
<input type="checkbox"/>	Not Sure	



Q 101 Related to Level 3 recognition, if applicable, please identify any new or ongoing corporate or community wide GHG reduction projects (other than an Option 1 or Option 2 project) undertaken by your local government that reflects a significant investment of time and/or financial resources and is intended to result in significant GHG reductions:

PROJECT NAME: