



Regional Board Report

TO: Regional Board

FROM: David Komaïke
Director of Engineering Services

DATE: August 23, 2021

SUBJECT: Corporate Sustainability Measures Update

Voting Entitlement: *All Directors – Unweighted Corporate Vote – Simple Majority – LGA 208.1*

Purpose:

To provide an update regarding corporate sustainability measures, specifically GHG reduction strategy and regional step-code implementation, and recommend next steps

Executive Summary:

The draft of a sustainable business case has been reviewed by Administration and is now being presented to the Regional Board for their review and comments (Attachment 1). The business case outlines various sustainability measures that would help the RDCO achieve carbon neutrality. Based on comments and feedback from the Senior Leadership Team, two measures were prioritized to be pursued in the immediate future.

- A. Corporate GHG reduction strategy
- B. Region-wide step code implementation

Climate change is becoming the new normal, increasing wildfires, floods, and even drought in various parts of Okanagan. These challenges have overwhelmed local infrastructure, caused economic losses and posed health concerns within communities. We can expect hotter and longer summers and shorter and warmer winters if we continue on this path. This scenario not only affects humans but completely disrupts the natural ecosystems.

Canada is one of the largest per-capita producers of greenhouse gases, mainly because of our inefficient energy management methods. Fortunately, there are ways to increase energy efficiency and address climate change with many environmental, health and economic benefits. In the RDCO's case, GHG reduction can be managed on two levels, observed and anticipated. Various adaption measures can be undertaken to tackle climate disruptions on the corporate and community level; investments in education programs, community outreach related to BC energy step code, energy conservation and constructing energy-efficient homes.

Aligning with regional strategic priorities, corporate GHG reduction strategy, and region-wide step code implementation will set us on the right track to offset our carbon emissions.

RECOMMENDATION(s):

THAT the Regional Board receives the Corporate Sustainability Measures Update report from the Director of Engineering Services dated August 23, 2021;

AND THAT the Regional Board approves an amendment to RDCO 2021-2025 Financial Plan Bylaw No. 1475 to include the \$30,000 expense, and associated revenue, for the development of a Corporate GHG Reduction Strategy as identified in the Financial Considerations section of the report;

AND FURTHER THAT the Regional Board approves an amendment to RDCO 2021-2025 Financial Plan Bylaw No. 1475 to include the \$40,000 expense, and associated revenue, for the Step Code community engagement process, as identified in the Financial Considerations section of the report.

Respectfully Submitted:



David Komaïke
Director of Engineering Services

Approved for Board's Consideration



Brian Reardon, CAO

Prepared by: Divya Gupta, Senior Energy Specialist

Attachment(s):

1. Sustainable Business Case
2. Green Vehicle and Equipment Policy

Implications of Recommendation:

Strategic Plan:	Approval of these projects would ensure compliance with strategic priority "environment" and "Sustainable Communities."
Organizational:	The building officials will require training to be experts on the BC energy step code. And based on community engagement results, integrate step code with RDCO building bylaw.
Financial:	Budget Amendment for 2021-22
Policy:	<ul style="list-style-type: none"> • Regional Growth Strategy Bylaw No. 1336 • Regional Strategic priorities 2019-2022 • Green Vehicle and Equipment Policy BP#10/2020 • Building Bylaw No. 835
Legal/Statutory Authority:	The local government act, Part 9, Section 289(1), (2), and Section 299 provides the legislative authority to the regional district to adopt, by bylaw, any national building codes to ensure the conservation of energy or water; the reduction of greenhouse gas emissions; the health, safety or protection of persons and property.

Background:

In December 2020, the Regional Board adopted a Green Vehicle and Equipment Policy (attachment 2) recommending an approach that would support corporate GHG reduction. Implementation of that policy is underway and has begun influencing decisions within the RDCO.

In June 2021, the RDCO Senior Leadership Team (SLT) received the sustainable business plan (Attachment 1) and presentation. The Corporate GHG reduction strategy and Region-wide step code implementation was prioritized based on SLT feedback.

Corporate GHG reduction strategy

The implementation of a corporate GHG reduction strategy is imperative to develop a GHG inventory that can provide energy use comparisons over time. Corporate emissions include emissions that the local government creates through its activities (and has control over) such as municipal building operations, parks, fire halls, wastewater treatment facilities, solid waste management systems, vehicle fleets, and utility services.

A roadmap for an effective corporate GHG reduction strategy would start with staff engagement. Energy savings workshops can help educate staff and get feedback on areas where behavioral change is insufficient. Annual discussions will be organized to incorporate staff's input towards the future sustainable pathway for the organization.

Energy-intensive buildings identified using asset management software will go through energy audits. Fortis BC and BC Hydro have free-of-charge programs to aid these audits. These audits will help streamline our approach towards retrofitting practices.

The Partners for Climate Protection initiative entails the completion of the five phases:

- Phase 1. Complete GHG and energy use inventories;
- Phase 2. Set reduction targets;
- Phase 3. Develop a management plan;
- Phase 4. Implement the plan; and
- Phase 5. Monitor and report progress.

The request for proposal will concentrate on the first three phases of the initiative:

Phase 1

- Current GHG emissions inventory evaluation.
- Review of best practices successfully established by other local governments.

Phase 2

- Prepare a shortlist of solutions, pathways and technologies suitable for addressing the unique requirements and GHG inventory profile of the District.
- Review of shortlist with internal stakeholders in a workshop format.

Phase 3

- Draft Corporate Greenhouse Gas Reduction Strategy.
- Finalize Corporate Greenhouse Gas Reduction Strategy.
- Strategic consulting support for project activities on-and off-site.

Step Code

The Province of BC introduced the 'Energy Step Code in 2017 as a performance-based standard for new construction . As part of an optional compliance path in the BC Building Code, local governments are able to require a level of energy efficiency for new construction in their communities, Following consultation with the public and builders on their readiness, the Regional Board is able to set step code levels and criteria for the transition to mandatory requirements. The province has an informal milestone set for late 2022 to mandate Step 3 of step code for new constructions. Early adoption at the RDCO will provide an opportunity for industry education and preparedness and help prevent compliance concerns in 2022.

Early adoption of the BC energy step code is proposed to begin with implementation of the lower steps (1-3) by 2022 and slowly transition towards higher steps (4-5) for future milestones to ensure 2032 target of net zero buildings.

Buildings built to higher energy-efficiency standards provide multiple benefits to those who live, work, and learn within them. Occupants often prefer these buildings as they:

- Improve comfort by better managing temperature
- Improve health by better managing fresh air throughout the building
- Reduce noise through better insulation and airtightness
- Require less energy, helping occupants lower their energy bills
- Are more durable

As well as energy cost savings, buildings will typically have lower GHG emissions compared to a baseline building of the same size. Step code has been widely adopted among member municipalities and on a provincial level.

There are also some challenges associated with adopting step code:

- Increase in initial construction costs
- Requirement for Energy Advisors
- Implementation may also further current issues that Inspection Services has with construction occurring without Building Permits

Applicable Policies and Legislation:

A corporate reduction strategy and adoption of the BC energy step code would align with the following legislation that the Provincial Government and local governments have adopted:

1. Bill 44 – Greenhouse Gas Reduction Targets Act:

Provincial GHG reduction target of 33% by 2020 and 80% by 2050 compared to a 2007 baseline.

2. Bill 27- Local Government (Green Communities) Statutes Amendment Act:

Requirement for local governments to include GHG emission targets, policies, and actions in their Official Community Plans (OCP) and Regional Growth Strategies (RGS).

BC Building Act

The building bylaw establishes the roles and responsibilities of District Building Officials. It also establishes the process by which building permits are issued. A review of the building bylaw is encouraged every 5 years or as necessary to ensure that they are effective and reflect current BC building code regulations.

- Building Bylaw No. 835 was last amended in 2011 and currently guides district building officials.
- Under the BC Building Act, only the province can establish building requirements. However, local governments have authority over many related matters, including the administration of building and construction in their communities, such as;
 - Regulating development;
 - Determining development cost charges or community amenity contributions;
 - Issuing development and building permits;
 - Conducting building inspections; and
 - Issuing building occupancy permits.
- As of December 15, 2017, S.5 of the Building Act prevents local governments from setting technical building requirements in bylaws unless a matter is unrestricted (there are currently eight unrestricted matters, including greenhouse gas emissions, fire access routes, and wildfire hazards).

Regional Board Strategic Priorities

The Regional Board has identified and prioritized protection of the environment through various regional plans and actions, including:

- Supporting efforts to reduce our environmental footprint and adapt to climate change;

- Developing best practices to encourage housing innovation and the adoption of sustainable building standards (e.g., BC Energy Step Code);
- Creating sustainable and safe communities.

Regional Growth Strategy

- Policy No. 3.2.6 Our housing goal: "To improve the range of housing opportunities to meet the social and economic needs of the region";
- Policy No. 3.2.6.2: "To Encourage new residential units and retrofits of older residential units to incorporate building materials and products that reduce energy and water consumption";
- Policy No. 3.2.7 Our climate goal: "To minimize regional greenhouse gas emissions and respond to the impacts of climate change";
- Policy No. 3.2.7.6: "To Encourage cooperation with regional partners, provincial ministries and stakeholders on initiatives that improve efforts to reduce GHG emissions, improve energy conservation and mitigate climate change impacts";
- Policy No. 3.2.9 Our transportation goal: "To enhance the regional transportation system to ensure that it is accessible, affordable, and efficient."

Green vehicle and equipment policy

- Incorporating alternative fuel vehicles and equipment into operations were financially and technically sustainable; and
- Rightsizing vehicles, equipment, and overall fleet size; and
- Conducting all fleet and equipment life cycle activities supporting efficiency and return on investment while reducing petroleum use.

Financial Considerations:

- Staff training budget may require increases to ensure staff is adequately trained for the 2022 compliance deadline for step code. Funding is available in the Building Inspections - Operations Budget (044)
- Developing a corporate GHG reduction strategy is estimated to cost \$30,000.
 - Funded via the 2020 CARIP grant program which is estimated at \$26,000 with the balance of funding (\$4000) to come from Engineering and the Westside Wastewater Treatment Plant operations Budget.
 - Additional grant funding from Fortis BC - 75% (\$22,500) and UBCM – 50% (\$15,000) is being sought but currently remains unconfirmed.
- BC Energy step code implementation is expected to cost ~\$40,000.
 - Funded via a transfer from Operating Reserves – Building Inspections (044)
 - Funding from Fortis BC is also available for the Step Code engagement process. This amount has not been included in the available funding sources as it will be dependent upon the results of the consultation process.

Organizational:

- Building officials training will be required to ensure step code compliance.
- The senior energy specialist will work closely with the consultants to develop a corporate GHG reduction strategy.
- Planning & Development would need to organize community engagements and gather feedback. The department is already involved in updating the building bylaw and has managed various community engagements.
- Community engagements will be carried out in conjunction with the communications department. A strategy will be designed to include all modes of meetings (virtual and in-person). External stakeholders will be split into two sections –
 - Community Members
 - Active builders, contractors and trades organizations

External Implications:

With the proposed incorporation of step code, new Part 9 (homes) developments within the district will be 20% more energy efficient.

Alternative Recommendation:

THAT the Corporate Sustainability Measures Update Report, dated August 23, 2021 be received for information.