



Regional Board Report

TO: Regional Board

FROM: David Komaïke
Director of Engineering Services

DATE: November 30, 2020

SUBJECT: RDCO Green Vehicles and Equipment Policy

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

Purpose: To present the draft RDCO Green Vehicle and Equipment Policy for the Regional Board's consideration.

Executive Summary:

The development of a Green Vehicle and Equipment Policy for the Regional District was initiated by the Regional Board. On December 9, 2019, the Board approved the following resolution:

#230/19 THAT staff be directed to draft a policy and covering report on the acquisition of electric and hybrid vehicles for the Regional District's vehicle fleet.

As a signatory of the B.C. Climate Action Charter, the Regional District of Central Okanagan (RDCO) is committed to working towards becoming carbon neutral in its corporate operations. As such, the Regional District is focussing on reducing greenhouse gas (GHG) emissions. The reduction of GHG emissions can be accomplished in various ways, one being the introduction of alternative fuel vehicles and equipment into organization vehicle and equipment pools. To that end, the draft RDCO Green Vehicle and Equipment Policy was developed to meet the Board's direction, as well as incorporate generally accepted green vehicle and equipment strategies, maximize the return on asset investment and meet the technical requirements of RDCO operations. The draft policy is now before you for your consideration.

RECOMMENDATION:

THAT the Regional Board approve the RDCO Green Vehicle and Equipment Policy.

Respectfully Submitted:

A handwritten signature in black ink, appearing to read "DK/R", is written over a light blue horizontal line.

David Komaïke, Director of Engineering Services

Approved for Board's Consideration

A handwritten signature in black ink, appearing to read "Brian Reardon", is written over a light blue horizontal line.

Brian Reardon, CAO

Prepared by: Mareike Mimi Miller, Asset Management Analyst

Implications of Recommendation:

Strategic Plan:	The Policy aligns with the priorities noted in the 2019-2022 Strategic Plan, specifically the sustainable communities and environment priorities.
General:	The Policy incorporates and speaks to Regional Board Resolution #230/19.
Organizational:	The successful implementation of this policy will require the development of operating procedures, as well as staff training in fuel conservation techniques and maintenance procedures for alternative fuel vehicles.
Financial:	The draft Policy is intended to minimize the potential financial impacts of rapid fleet renewal due to the incorporation of alternative fuel vehicles and equipment.
Policy:	The draft Policy relates to various existing RDCO policies and procedures, including the RDCO Purchasing Policy No. 7.20
Legal/Statutory Authority:	The Policy aligns with the RDCO's commitments under the B.C. Climate Action Charter.

Background

The development of a Green Vehicle and Equipment Policy for the Regional District was initiated by the Regional Board.

As a signatory of the B.C. Climate Action Charter, the Regional District of Central Okanagan (RDCO) is committed to working towards becoming carbon neutral in its corporate operations. As such, the Regional District is focussing on reducing greenhouse gas (GHG) emissions. The reduction of GHG emissions can be accomplished in various ways, one being the introduction of alternative fuel vehicles and equipment into organization vehicle and equipment pools. Utilizing alternative fuel sources, such as biofuel, natural gas, methane, and electricity can reduce the production of GHG emissions. The percentage of emission reduction depends on various factors, including the type of alternative fuel used, the type of vehicle or equipment powered, and the circumstances surrounding vehicle use. According to the *2019 RDCO BC Traditional Services Inventory Report* the combined GHG emissions from trucking (biosolids), solid waste collection, and general fleet operations equalled 74.1% of the RDCO's GHG emissions last year.¹ The relatively high rate of emissions attributed to vehicles and equipment supports the development of an emissions reduction strategy employing alternative fuel use and fuel conservation.

Policy Development

The Green Vehicle and Equipment Policy was developed by staff to meet the Board's direction, as well as incorporate generally accepted green vehicle and equipment strategies, maximize the return on asset investment and meet the technical requirements of RDCO operations. Green vehicles and equipment are assets with sustainable life cycle goals. Generally accepted "greening" strategies can be used in each phase of an asset's life cycle to lower the overall emissions produced over time.

When developing this policy, staff took into account various available resources, including the following:

- RDCO member municipality policies associated with vehicles and equipment,
- Information published by other B.C. local governments, including:
 - The City of Abbotsford's *Green Fleet Strategy*,ⁱⁱ
 - The City of Richmond's *Green Fleet Action Plan*,ⁱⁱⁱ and
 - The City of Dawson Creek's *Green Vehicle Policy*.^{iv}
- Information published by other sources, including:
 - The B.C. Climate Action Toolkit: *Green Fleet Action Plan*,^v and
 - Natural Resources Canada's *Greening Government Fleets*.^{vi}

Organizational Considerations:

Policy Implementation

Policy implementation will be achieved in various ways, including:

- Incorporating alternative fuel vehicles and equipment into operations where financially and technically sustainable.
- Rightsizing vehicles, equipment, and overall fleet size, and
- Conducting all fleet and equipment life cycle activities in a manner supporting efficiency and return on investment while reducing petroleum use. The following table outlines various tactics and considerations employable throughout an asset's life cycle in order to achieve successful implementation of the policy.

Planning	Aquisition	Operation and Maintenance	Disposition
<ul style="list-style-type: none"> •Prioritizing the purchase of vehicles with lower overall fuel consumption, and vehicles using alternative fuels •Consider alternatives to purchasing an asset •Consider alternatives to conventional fuel assets 	<ul style="list-style-type: none"> •Considering asset operating costs, technical requirements, and potential emissions, as well as the initial cost of purchasng the asset •Incorporating potential 'dealer buy-back ' in the original purchase agreement 	<ul style="list-style-type: none"> •Encouraging fuel-efficient driving techniques and behaviour to conserve fuel •Efficiently timed maintenance 	<ul style="list-style-type: none"> •Timing the selling of vehicles and equipment in order to capture the highest return on investment

These tactics and considerations will be incorporated into day-to-day activities by developing new procedures and reviewing related existing policies and procedures for potential integration of “greening” elements. Related Policies and procedures (which may be revised from time to time) include:

- RDCO Purchasing Policy No. 7.20,
- RDCO Vehicle Engine-Idling Policy Resolution No. 68/04,
- RDCO Fleet Procedures,
- Department Operations Procedures, and
- Asset Management Plans.

Responsibilities

The predominant responsibilities ensuring the success of this policy lie with the Regional Board for review and adoption of the policy and with the RDCO's CAO and Management for implementation and maintenance of the policy.

Policy Monitoring and Review

The Green Vehicle and Equipment Policy will be monitored for success on an on-going basis by Fleet Services. Emission levels will be reported to the Regional Board annually as part of the Climate Action Revenue Incentive Program report. The review of this policy will follow the general RDCO policy review process as per the recommendations of the CAO.

Financial Considerations:

When developing this policy, staff intended to minimize the potential financial impact of rapid vehicle and equipment replacement due to the implementation of alternative fuels. The various strategies noted in the policy are aimed at conserving fuel, as well as replacing the need for fossil fuels over time. In regard to financial considerations, the goal of this strategy is to maximize the return on investment over the life of the asset and balance this with a reduction of GHG emissions and the technical needs of RDCO operations. This means that there may be times when the upfront or capital cost of an alternative fuel asset is higher than a conventional fuel asset; however, the higher initial cost will be recovered over the life of the asset with lower operating and maintenance costs and a higher return on resale.

External Implications:

This policy takes into account the reality of rapidly changing technology in the automotive and equipment development sectors. Most risks associated with this external demand driver are treatable with the well-planned timing of asset renewal in order to capture the benefits of rapidly changing technology.

Alternative Recommendation:

That the Regional Board receive the draft policy for information only and provide staff with further direction regarding the development of a green vehicle and equipment policy.

Emission Reduction Projects – Completed or Underway

The Regional District has already taken steps to achieve a future reduction of GHG emissions in its corporate operations. The organization is currently advertising for the role of Senior Energy Specialist. The Senior Energy Specialist supports the RDCO's move towards a low-carbon energy future in alignment with corporate energy objectives. This position is funded in partnership with FortisBC's Climate Action Partners program.

Further projects completed or underway include:

Utilizing alternative fuel trucks for Solid Waste Collection

The current agreement for solid waste collection utilizes a fleet of alternative fuel trucks, as encouraged in the RDCO Solid Waste Management Plan.

Electric auto extrication tools for the Regional Rescue Program

E-tools have been purchased to replace fossil fuel auto extrication tools as part of the Regional Rescue Program. The e-tools consist of spreaders, shears, and a ram provided to local fire departments involved in road rescues.

Hybrid electric and electric vehicles for Fleet Services

The RDCO is purchasing hybrid electric and electric vehicles for general fleet operations. In 2018 Regional Parks purchased an E-Truck for Parks operation and maintenance. In 2019 Corporate Services committed to the purchase of a hybrid electric vehicle for the administrative fleet pool. Westside Regional Wastewater Treatment Plant staff is currently considering the purchase of a hybrid electric vehicle in 2020 for their operations.

Attachment(s):

- Draft RDCO Green Vehicle and Equipment Policy

ⁱ GHG Accounting Inc. *2019 BC Traditional Services GHG Inventory Report*, RDCO Climate Action Revenue Incentive Program Report 2019 – Appendix A, Pg. 31. https://www.regionaldistrict.com/media/285809/RDCO_CARIP_Public_Report_2019.pdf. Accessed: November 30, 2020.

ⁱⁱ *Abbotsford Green Fleet Strategy*. The City of Abbotsford. <https://abbotsford.civicweb.net/document/55530>. Accessed: November 30, 2020.

ⁱⁱⁱ *Green Fleet Action Plan*. Vehicles and Equipment. The City of Richmond. <https://www.richmond.ca/sustainability/energysrvs/energy-emissions/Fleet.htm> Accessed: November 30, 2020.

^{iv} *Green Vehicle Policy*, City of Dawson Creek. <https://www.dawsoncreek.ca/wordpress/wp-content/uploads/news/proposed-policy-update-green-vehicle-policy/green-vehicle-policy.pdf>. Accessed: November 30, 2020.

^v *Green Fleet Action Plan*, B.C. Climate Action Toolkit. <https://www.toolkit.bc.ca/tool/green-fleet-action-plan>. Accessed: November 30, 2020.

^{vi} *Greening Government Fleets Best Practices*. Government of Canada. <https://www.nrcan.gc.ca/energy/transportation/alternative-fuels/resources/21314>. Accessed: November 30, 2020.