

Standing Committee on Finance

August 2, 2019

Re: Canadian Biogas Association's 2020 Pre-Budget Submission

The Canadian Biogas Association (CBA) appreciates the opportunity to provide input to the federal Standing Committee on Finance (Committee) pertaining to the 2020 pre-budget consultations. The CBA highlights the value that biogas and renewable natural gas (RNG) brings to addressing climate change and transitioning Canada to a low carbon economy by way of five recommendations for consideration by the Committee.

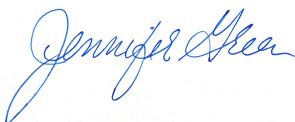
The CBA is the collective voice of Canada's biogas/RNG sector and is committed to developing the biogas and RNG industry to its fullest potential through capturing and processing organic materials to maximize the utility and value inherent within that material. With over 135 companies, our members span the entire value chain of the sector and consist of farmers, municipalities, private sector owners and operators of biogas/RNG systems, technology suppliers and consultants, financial and learning institutions, utilities, and waste industry and organics residual generators.

Biogas and RNG are versatile, low-carbon energy alternatives that are easily and economically integrated and used by Canadian consumers. Biogas/RNG compliments new and existing energy and waste management infrastructure, making Canadian businesses and communities more resilient and sustainable in the circular economy.

Biogas/RNG contributes to the advancement and innovation in clean technologies as part of Canada's bioeconomy; injects millions of dollars into local communities where biogas/RNG facilities are built and operate; creates sustainable, long-term jobs; and, supports Canada's carbon market by reducing greenhouse gas emissions in agricultural, municipal and remote communities.

The CBA thanks the Committee for its consideration and looks forward to working with relevant ministries to enable the growth of biogas/RNG in Canada.

Sincerely,



Jennifer Green
Executive Director, Canadian Biogas Association

Climate Emergency: The Required Transition to a Low Carbon Economy

2020 Pre-Budget Submission to the House of Commons Standing Committee on Finance – August 2019



The Value of Biogas/RNG to the Canadian Economy

Recommendations

The CBA submits the following five recommendations to the federal Standing Committee on Finance for consideration in the 2020 pre-budget consultations.

Recommendation 1: Introduce \$750 million over six years to advance the development of renewable gases, including biogas and RNG technologies to stimulate the growth and transition of low carbon fuels, innovation, and green jobs across Canada. The CBA endorses a proposal for a \$175 million *Renewable Gas Technology Commercialization Fund* and \$575 million *Renewable Gas Supply Fund* to support research and project deployment of renewable gases in Canada.

Recommendation 2: Invest \$450 million into new and existing clean energy infrastructure and transportation pathways to support the development and advancement of low carbon fuels like biogas and RNG technologies.

Recommendation 3: Redirect funds arising from carbon pricing measures (i.e. carbon tax) to provincial programs that support low carbon fuels like biogas and RNG.

Recommendation 4: Develop a Canadian Clean Fuel Strategy to support the successful implementation of low carbon fuels in Canada.

Recommendation 5: Recognize the Canadian Anaerobic Digestion Guideline as an informative national resource to support successful development and deployment of biogas and RNG in Canada.

Overview

Biogas and RNG are proven low carbon fuel technologies growing in Canada with over 100 biogas installations and a dozen RNG facilities adopted on farms, municipalities, industrial and commercial businesses. Biogas is a renewable fuel derived from a biological process called anaerobic digestion. This breakdown of organic material, originating from agriculture, landfills, wastewater treatment facilities, and residential/commercial green bin programs, can be upgraded to produce RNG.

Biogas provides reliable, low-carbon energy in the form of heat, power, and pipeline quality gas that can be used for transportation (i.e. natural gas fuelled vehicles), household heating or industrial, commercial and institutional processes.

All of these critical functions - generating renewable energy, reducing solid wastes, managing nutrients, reducing GHGs, and mitigating pollution risks - can be realized from a biogas facility in an economically sound and sustainable manner. The required components and services are available across Canada. Biogas production

Climate Emergency: The Required Transition to a Low Carbon Economy

2020 Pre-Budget Submission to the House of Commons Standing Committee on Finance – August 2019



generates diverse revenue streams for farms, industries and municipalities, creates new jobs in the green economy and offers attractive investment opportunities.

Rationale

Biogas/RNG bring forth tremendous economic, social and environmental benefits that are realized when industry and governments work together. The following rationale supports the CBA's recommendations offered for consideration in the 2020 pre-budget consultation:

- 1. Low-Carbon Gaseous Fuels: NRCan to introduce a *Renewable Gas Program* for technology commercialization and renewable gas supply with \$750 million over six years to advance the development of low-carbon gaseous fuels like biogas and RNG and to stimulate the growth and transition of clean-tech, innovation, and green jobs across Canada**

The CBA supports the development of a *Renewable Gas Program* lead by NRCan that would see federal funding for technology commercialization and deployment of renewable gas supply. This would include \$750 million over a six-year fund that aims to leverage private capital, utility/ratepayers and/or provinces to stimulate the growth and transition of clean-tech, innovation, and green jobs across Canada.

Gaseous fuels have not been the beneficiary of federal funding like biofuels (\$2 billion in 2007) and renewable electricity (>\$1 billion since 2007). A *Renewable Gas Program* would support the deployment of biogas and RNG projects and assist in meeting GHG reduction targets in the CFS.

Biogas/RNG is a low-carbon fuel solution that continues to offer innovation to the agricultural, municipal and waste management sectors. Biogas/RNG offers economic and social stimulus to Canadians and plays important roles in local communities, including investment in innovation, advancement in clean technologies, engagement of youth, and job creation.

Realizing the full potential of biogas/RNG development can lead to 1,800 separate construction projects with a capital investment of \$7 billion and economic spin-off of \$21 billion to the Canadian economy; close to 17,000 construction jobs for a period of one year, and 2,650 on-going long term operational jobs; and, 100 new and expanded Canadian companies, including biogas system designers and developers, equipment suppliers, and laboratories.

- 2. Low-Carbon Infrastructure/Transportation: NRCan to allocate \$450 million into new and existing clean energy infrastructure and transportation pathways to support the deployment and advancement of biogas and RNG technologies**

Biogas delivers energy when Canadians need it. Biogas is flexible, renewable power that can interface uniquely with a diverse energy mix. Biogas generates energy independent of weather and can produce renewable electricity or be stored in existing natural gas infrastructure, for generation at combined heat and power hosts.

Climate Emergency: The Required Transition to a Low Carbon Economy

2020 Pre-Budget Submission to the House of Commons Standing Committee on Finance – August 2019



RNG can be produced to meet all of the technical standards and requirements of conventional natural gas, and therefore offers the same degree of versatility, at the same time as using existing infrastructure and avoiding stranded assets within Canadian communities. These investments can leverage existing infrastructure and storage capabilities and create lower-carbon, resilient energy systems.

In transportation, RNG is already playing a role in California, specifically short haul and day trip vehicles. A 2017 jobs study found that deploying trucks fueled by RNG could create up to 130,000 new jobs and add \$14 billion to California's economy¹. Supporting investments in low-carbon alternative fuels like RNG in transportation can amount to significant GHG reductions. In Canada, GHG emissions from freight account for over 10.5% of transportation emissions². For example, a 2011 waste-to-wheel lifecycle analysis of RNG by Argonne National Laboratory found an 81-91% GHG emissions reductions relative to gasoline vehicles for anaerobic digestion based RNG. Supporting infrastructure for RNG will result in environmental benefits that will accrue in Canada and bring co-benefits including cleaner air, increased fuel diversity and economic benefits from reducing reliance on fossil fuels.

3. Low Carbon Fuel Technologies: Finance to redirect funds arising from carbon pricing measures (i.e. carbon tax) to provincial programs that support clean technologies including biogas and RNG and the distribution of funds from carbon tax be complementary with other federal environmental market mechanisms to ultimately account for as much GHG reductions as possible to meet Canada's targets.

Complementing the development of a Clean Fuels Standard, the government has implemented carbon pricing in all jurisdictions across Canada. Funds collected at the federal level can support the development of low-carbon fuels, and be redistributed to provincial policies and programs.

Carbon pricing sends an important signal to markets and serves to drive fuel switching and technology advances. Carbon pricing can support the development and availability of low-carbon fuels by redistributing the funds collected at the federal level to provincial policies and programs.

This distribution of funds will help Canadians address Canada's climate emergency and accelerate development of low carbon fuels such as biogas and RNG that will contribute to driving lower emissions in the future.

The emissions reduction potential of biogas and RNG is well documented. This is further supported by a recent working paper from the World Resource Institute offering a positive assessment – the paper states from a greenhouse gas (GHG) reduction lens – RNG produced by anaerobic digesters. "Generally speaking, RNG has potential as an effective GHG reduction strategy when it meets two conditions: It is produced from organic waste, and its production and use results in net methane emissions reductions."³

¹ ICF, [Economic Impacts of Deploying Low NOx Trucks fueled by Renewable Natural Gas](#), May 2017

² Pembina Institute, [The State of Freight](#), June 2017

³ World Resources Institute, [The Production and Use of RNG as a Climate Strategy in the US](#), April 2018

Climate Emergency: The Required Transition to a Low Carbon Economy

2020 Pre-Budget Submission to the House of Commons Standing Committee on Finance – August 2019



4. Clean Fuel Strategy: ECCC to lead development of a Canadian Clean Fuel Strategy

The Clean Fuel Standard (CFS) is intended to decrease the carbon intensity of fuels, and to meet the CFS targets will require increased biofuel blending, lower carbon biofuels, biogas, RNG, electricity, hydrogen and other lower carbon fuels. To help with this transition, producers of low-carbon fuels have identified a number of supportive policies and funding priorities that are essential to supporting the successful adoption of low-carbon fuels in Canada.

The federal government, through its efforts within the Pan Canadian Framework to address climate action, has announced a number of new programs and funding sources; however, there is no dedicated approach to support the implementation of the CFS. The CBA is a member of the Clean Fuels Steering Committee, an industry-government collaboration including renewable gaseous, liquid, solids and EV sectors and the federal departments of Natural Resources Canada, Environment and Climate Change Canada (ECCC), Agriculture and Agri-Food Canada, Innovation Science and Economic Development working together to examine program and policy measures that affect capital investments in Canadian clean fuel production.

The CBA recommends that ECCC lead the development of a Canadian Clean Fuel Strategy that would define national clean fuel targets, develop an economic plan to attract and deploy capital to build capacity and support use of low carbon fuels in Canada, and identify actions to direct federal government programs, agencies and tax teams to implement the Clean Fuel Strategy.

5. Canadian Anaerobic Digestion Guideline: Recognize resources to advance the development of biogas and RNG in Canada

With a growing interest of low carbon alternative fuels and measures to advance the circular economy both provincially and federally, there will be an increased demand for anaerobic digestion (AD) facilities for organics processing and reducing GHG emissions.

The CBA has initiated development of a first of its kind Canadian AD Guideline that provides recommended planning, design and operational practices for AD facilities that process food and organic waste materials. The AD Guideline addresses a gap in Canada compared to other jurisdictions for a supporting document that creates a clear outline of best practices for biogas projects to assist developers and stakeholders in the development of biogas projects.

The AD Guideline is an informative resource that requires national recognition to support successful development and deployment of biogas and RNG in Canada.