

Shannon Miedema
Energy and Environment Program Manager
Planning and Development
Halifax
miedems@halifax.ca

January 9, 2020

Dear Shannon and the HalifACT team,

Thank you for your continued efforts to guide Halifax Regional Municipality toward achieving the ambitious goals of the HalifACT 2050: Acting on Climate Together plan. As an active stakeholder and contributor in this process, Clean Foundation is pleased to provide a letter of support for the actions required to achieve a 95% GHG emission reduction by 2050 – specifically, those actions outlined under the LC3 model (pg. 8 from the November 7, 2019 Summary of Progress). The actions outlined in the LC3 model are achievable, and indeed necessary – we strongly encourage you to stay the course.

You are not alone. Many of the listed actions are well underway - led by your team, your colleagues across municipal and provincial governments, and the many groups and organizations who work in the sector and support the HalifACT plan. Clean has a long and positive history helping Haligonians and Nova Scotians reduce their energy demand, improve energy efficiencies, safeguard our coasts and biodiversity, drive innovative environmental programs and projects, and educate and train the current and next generation for a sustainable future. We provide individuals and communities with the means, knowledge, and opportunity to make responsible environmental choices. We have been doing this work for 30+ years.

As you know, accessing funding or resources requires a plan like HalifACT and the collaborative, multisectoral support that currently exists in HRM. At Clean, we have experience with all levels of government and understand how to take broad funding and develop and implement on-the-ground programs that achieve measurable impact in communities. We are ready to help – please let us know how.

Together, and we can build a sustainable future in Halifax.

Sincerely,



Scott Skinner
President and CEO

December 9, 2019

By E-mail: meidems@halifax.ca

Shannon Meidema
Energy & Environment Program Manager
Planning & Development
HALIFAX

RE: HalifACT 2050

Dalhousie has had a Climate Change Plan for operations since 2010. In 2019, a second version was. The University participates international Sustainability reporting systems, such as STARS, which publishes performance data related to curriculum, governance, research and operations.

Strategies in the Dalhousie Climate Change Plan align with many of the actions outlined in the HalifACT 2050 plan including focuses on energy efficiency and renewable energy, transportation, green and resilient buildings, biodiversity, water and waste reduction and management.

Our plan outlines specific mitigation and adaptation goals, actions and targets. Annual greenhouse gas inventories are published to monitor ongoing performance. Every three years a broader Sustainability Progress Report is published. This report and STARS includes tracking information on a number of indicators related to climate and other action areas.

Dalhousie University has been involved in environment and sustainability issues in its operations, curriculum, and research for decades. Dalhousie has signed international and national declarations including the Halifax Declaration, the Talloires Declaration, the UNEP International Declaration on Cleaner Production and the University and College's Climate Change Statement for Canada. In 2008, the College of Sustainability, the Office of Sustainability, and the Dalhousie Student Union Sustainability Office were formed and the President's Advisory Council on Sustainability (PACS) was created.


Dalhousie faculties incorporate progressive research, courses and programs at the undergraduate and graduate levels advancing sustainability knowledge and perspectives. Over 250 courses offered on campus have sustainability-focused content offerings. Some programs

are centrally focused on the topic such as the College of Sustainability, School for Resource and Environmental Studies, Environmental Science (Agriculture and Science), and Environmental Engineering. Other programs offer course content related to the topic in Faculties such as Architecture and Planning, FASS, Science, Law, Engineering, and Agriculture.

Over 220 faculty members are involved in sustainability related research crossing multiple Faculties. Key research centres focus on sustainability related topics such as the Ocean Frontier Institute, Clean Technologies Research Institute, Centre for Water Resource Studies, Marine and Environmental Law Institute, Healthy Populations Institute, and the Organic Agriculture Centre of Canada. Dalhousie's Signature research Clusters are organized for impact around the UN Sustainable Development Goals. Clusters include Sustainable Ocean, Healthy People, Healthy Communities, Healthy Populations, Clean Tech, Energy, the Environment, Culture, Society, Community Development, Food Security.

Strong relationships and partnerships that support these collective actions will be paramount as we work together on significant climate strategies.

Sincerely,



Ian Nason
Vice-President
Finance and Administration

February 3rd, 2020

Taylor Owen
HaliACT 2050
Halifax Regional Municipality
40 Alderney Drive
Dartmouth, NS B3J 3A5

Dear Mrs. Owen,

It is my great pleasure to provide you with this letter of support in principle for climate action in the Halifax Regional Municipality and the high-level goals of HalifACT 2050. The Department of Energy and Mines looks forward to opportunities to advance shared climate action objectives with the implementation of this plan.

The Province of Nova Scotia is committed to combatting climate change through sustainable and renewable energy initiatives. The HalifACT 2050 plan strongly aligns with our priorities which include reducing our greenhouse gas emissions, ensuring rate stability while reducing energy costs for low income families, and continuing our work in renewable energy.

The Department also works to support community driven projects that reduce greenhouse gas emissions through our many programs, such as the Low Carbon Communities Program, the Connect2 Program, and the Solar for Community Buildings Program.

We are committed to working with our partners to achieve shared goals in greenhouse gas reduction. We look forward to the launch of HalifACT 2050 and to the opportunities that it will bring for Halifax and for the province of Nova Scotia.

Sincerely,



Keith Collins
Executive Director
Sustainable and Renewable Energy Branch

December 9, 2019



*A proud Chapter
of the CaGBC
since 2005*

Shannon Miedema
Energy & Environment Program Manager
Planning & Development
Halifax Regional Municipality

By email: miedems@halifax.ca

Dear Shannon,

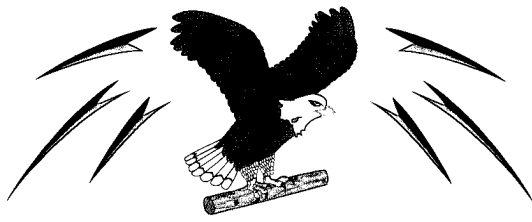
The Canada Green Building Council (CaGBC) supports Halifax Regional Municipality in its goals outlined in HalifACT 2050 to protect the environment, reduce greenhouse gas (GHG) emissions and create economic opportunity.

The CaGBC is a not-for-profit, national organization that has been working since 2002 to advance green building and sustainable community development practices in Canada through market-based solutions. We are an industry-led organization providing value-added solutions that benefit the environment, economy, and public health. Our in-depth market research and analysis, building certification programs (i.e. LEED®, Zero Carbon Building Standard), and capacity building efforts have accelerated the transformation to high-performing green buildings, homes, and communities throughout Canada. Our reach is enhanced by the work of eight provincial Chapters that provide regionally tailored market education and advocacy.

We appreciate the opportunity to provide support to the efforts of the HalifACT 2050 committee and look forward to continuing to participate in discussions that relate to buildings on behalf of the green building industry in the region and across Canada.

Green buildings are one of the most cost-effective ways to reduce GHG emissions as well as save money for HRM's homeowners and businesses. Buildings also represent significant potential for economic growth through innovation, investments and job creation. Nova Scotia's built environment is a significant contributor to GHG emissions at 13 per cent, the third largest emitting sector in Nova Scotia with electricity generation at 42 per cent of emissions being the largest.

By constructing low-emission buildings and retrofitting existing building stock, Halifax will lower emissions, create new jobs, and scale-up investments and innovation. At the same time, these investments will ensure its building stock is more resilient to future climate conditions such as extreme weather, forest fires, flooding or droughts. Over 80 per cent of existing buildings will still be in operation in 2030 and 50 per cent in 2050, and therefore it is essential that existing buildings are addressed to meet GHG reduction targets for the building sector.



The Confederacy of Mainland Mi'kmaq

Member Mi'kmaq Communities

Acadia • Annapolis Valley • Bear River • Glooscap • Millbrook
• Paqtnkek • Pictou Landing • Sipekne'katik

Main Office:

57 Martin Crescent, Millbrook Mi'kmaq Community
PO Box 1590 Truro, Nova Scotia Canada B2N 5V3
Tel (902) 895-6385 Fax (902) 893-1520
Toll free: 1-877-892-2424

Hospital Interpreters Liaison Program (902) 471-2988
Website Address: www.cmmns.com

January 9th, 2020

Ashley Childs

Department of Environment and Natural Resources

The Confederacy of Mainland Mi'kmaq

P.O. Box 1590

Truro, NS, B2N 5V3

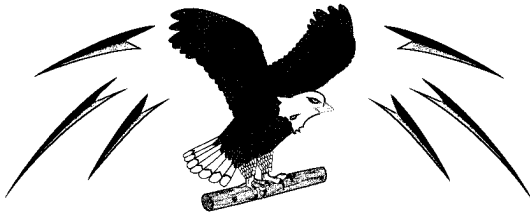
To the HalifACT 2050 project team,

The Confederacy of Mainland Mi'kmaq (CMM) would like to strongly affirm our commitment to supporting the climate change mitigation and adaptation planning taking place within Halifax Regional Municipality through the HalifACT 2050 process. Climate change is a present and urgent threat to human health and wellbeing, the natural environment, and all manner of built infrastructure, the impacts of which will be felt acutely at the local level and will disproportionately burden the most vulnerable populations.

The Confederacy of Mainland Mi'kmaq (CMM) is a Tribal Council representing the eight Mi'kmaq communities in mainland Nova Scotia: Acadia, Annapolis Valley, Bear River, Glooscap, Millbrook, Sipekne'katik, Paqtnkek, and Pictou Landing First Nations. Our mission is to proactively promote and assist Mi'kmaq community initiatives towards self-determination and enhancement of community. CMM has been actively engaged in climate change programming since 2014, and we continue to strengthen the support we provide to communities on climate initiatives.

Some highlights of our adaptation work include vulnerability assessments to gather local knowledge on hazards, LiDAR and GIS modelling to generate flood risk model, developing adaptation strategies for priority vulnerabilities, and various outreach initiatives. Our emergency management project has conducted needs assessments and increased preparedness through providing necessary emergency response equipment and organizing numerous training opportunities. To improve food security our pollinator recovery project works to augment native pollinator habitat and establish community gardens. Our climate monitoring team interviews traditional knowledge holders on the impacts of climate change and builds capacity for communities to monitor changing weather, precipitation, air quality, and ecosystem changes. In 2020 we are also eager to begin supporting Mi'kmaq communities in their transition to a low carbon future through outreach and engagement initiatives on energy efficiency and renewable energy along with providing practical skills training in the green energy sector. Through these initiatives and more CMM will continue to work with its communities to prepare for the ongoing impacts of climate change.

In unity there is strength and in strength there is power, justice and equality for all.



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Website Address: www.cmmns.com

The goals set forth in the HalifACT 2050 plan are ambitious yet undeniably essential, and CMM will continue to support these climate action initiatives as a participant in the HalifACT 2050 process.

Sincerely,

Ashley Childs

Senior Director, Department of Environment and Natural Resources

In unity there is strength and in strength there is power, justice and equality for all.

Through the goals defined in HalifACT 2050 around the built environment, Halifax is well positioned to demonstrate leadership that will drive change, inform policy development and enable job creation and GDP growth in Halifax by strengthening the capabilities of the green building sector and its workforce, informing investment and export opportunities.



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since 2005*

The CaGBC Atlantic Chapter will continue to convene and support the green building industry by providing education and training on high-performing zero carbon new buildings and retrofits as well as voluntary industry standards such as LEED®, WELL or the Zero Carbon Building Standard. As Canada's green building advocate, we will continue to support Halifax and the NS provincial government in meeting climate goals related to building stock.

We applaud Halifax's ambitious goals of net-zero new construction for all buildings within the municipality by 2030, carbon-neutral new and existing municipal buildings by 2030, and deep retrofits for all existing buildings within the municipality by 2040.

CaGBC's research confirms that a goal of zero carbon for new construction buildings by 2030 is financially and technically viable for the industry. Setting the objective also provides long-term clarity to developers, designers, and builders about future performance expectations and help them assemble the expertise, processes, and investments needed to be successful. Further, a goal of zero carbon for all buildings within the municipality by 2040 would make Halifax more ambitious than the 2050 recommendation of the World Green Building Council to address global climate goals.

Congratulations on the work to date in addressing the climate emergency. We look forward to continuing to set new municipal building related short, mid and long-term goals together.

Sincerely,

Lara Ryan
Regional Director, Atlantic Chapter
Canada Green Building Council
902-440-0296
lryan@cagbc.org



December 20, 2019

Shannon Miedema
Energy & Environment Program Manager
Planning & Development
Halifax Regional Municipality

RE: HERITAGE GAS SUPPORT FOR HRM'S CLIMATE ACTION PLAN

Heritage Gas supports HRM's ambitious climate change plan to be carbon neutral by 2050 and to help communities adapt to climate change. No single type of energy will enable HRM to achieve these goals - we'll need transformative and collaborative solutions that conserve energy, improve energy efficiency, increase energy resiliency, and offer cleaner energy sources for buildings, industries, and transportation.

Heritage Gas is already taking action and developing plans to address climate change in Nova Scotia. Natural gas has helped reduce GHG emissions in Nova Scotia by over 200,000 tonnes per year through the conversion of homes, commercial buildings, and industries from oil to cleaner-burning natural gas. Looking forward, Heritage Gas will be doing much more to reduce GHG emissions and increase energy resiliency in HRM at relatively low cost compared to other alternatives. We're working on projects and developing plans that will support HRM to:

- improve the energy efficiency of buildings;
- transition to a mix of cleaner energy sources, including cleaner electricity, renewable energy, and lower-carbon fuels for buildings, industries, and transportation; and
- adapt to climate change by improving the reliability and resiliency of HRM's energy infrastructure.

We track and report GHG emissions from the use of natural gas in Nova Scotia as part of the Province's cap & trade system. As the lowest emitting fossil fuel, including electricity generation in Nova Scotia for the next several years, the carbon footprint from the combustion of natural gas is relatively small compared to other fuels.

To promote sustainability and help our customers evaluate alternatives to reduce their household carbon footprint, a GHG emissions calculator is posted on the Heritage Gas website at <https://www.heritagegas.com/for-home/savings-calculator/>. We also report the year-to-date GHG emissions reduction from the use of natural gas in Nova Scotia on the homepage of the Heritage Gas website.

So far in 2019, our customers have reduced Nova Scotia's carbon emissions by:

174,868.169 tonnes

Heritage Gas supports the benefits that densification through land use planning offers to reduce GHG emissions in HRM. Energy use per resident is significantly lower for households in multi-unit residential buildings compared to single-family homes, and building higher density residential and commercial developments improves the feasibility of district energy.



Heritage Gas also plays a role in climate adaption by improving energy resiliency in HRM, and this role will become more important as the frequency and severity of storms increases. The natural gas distribution system in HRM is over 99.99% reliable and widespread service disruptions are extremely rare, which can help HRM build resilient multi-grid energy systems. Furthermore, Heritage Gas is working with building owners and industries to complete feasibility and implementation studies for combined heat & power (CHP) generators. CHP improves energy security and reduce energy costs in buildings, by producing on-site electricity and heat that can be available during grid power disruptions.

Details of specific actions and programs that Heritage Gas is working on or planning to undertake that support the themes outlined in the HalifACT 2050 Actions Catalogue are outlined below:



BUILDINGS

Building codes and standards for new construction:

- ***District heating/cooling connection*** – Heritage Gas supports district energy in new large, high density developments in HRM, including the Cogswell redevelopment project, Shannon Park, Dartmouth Cove, and the former St. Patrick’s high school lands on Quinpool Rd.

Building performance rating and reporting:

- ***Advanced metering (smart meters, sub-metering)*** – Heritage Gas has installed Automatic Meter Reading (AMR) devices on meters for all natural gas customers that can support monitoring, analyzing and reducing energy use. Energy efficiency and retrofit measures for existing buildings:
- ***Heating efficiency*** – Heritage Gas helps building owners replace older, low-efficiency oil furnaces and boilers with new natural gas condensing boilers and furnaces that are up to 97% efficient and improve energy efficiency by up to 20%.

Industrial carbon emissions reduction:

- ***Energy efficiency or waste energy recovery in industrial processes*** – Heritage Gas is advocating for the development of policies and programs to improve the energy efficiency of industries through the installation of combined heat & power (CHP) generation for industrial processes and large commercial or institutional buildings.



TRANSPORTATION

Fuel economy - public transport:

- ***Improve transit vehicle fuel economy through switching to low or zero carbon fuels*** – Heritage Gas has supported Halifax Transit’s study of the conversion of the bus fleet to compressed natural gas (CNG) to reduce bus GHG emissions by 20% compared to the current diesel bus fleet, or by 100% with renewable natural gas (RNG) produced from one of HRM’s organics management facilities, landfills, or wastewater treatment plants.

Fuel economy - private transport & Freight Systems:

- **Switch City authority fleet of vehicles to electric/hybrid/low-carbon** – If the carbon intensity of electricity generation in Nova Scotia is reduced significantly from current levels, electric vehicles will be an effective action to reduce GHG emissions from light-duty vehicles. However, it is not feasible to electrify heavy-duty vehicles including waste vehicles, construction equipment, and heavy tractors used to haul freight. Heritage Gas has completed a feasibility study and is working with the Province of Nova Scotia to develop a Natural Gas Vehicle (NGV) strategy for heavy-duty vehicles.



ENERGY SUPPLY

Local low or zero carbon energy generation (community scale):

- **Anaerobic digestion of organic wastes** – Heritage Gas is working with proponents for HRM's new organics management facility to enable the production, distribution, and sale of renewable natural gas (RNG) through anaerobic digestion from the proposed new facility.
- **Biogas / landfill gas recapture** – We have supported HRM to evaluate the feasibility of upgrading biogas from the Otter Lake Landfill to RNG and injecting it into the natural gas distribution grid.
- **District energy (electricity, heating or cooling) with renewable energy source** – Heritage Gas has identified several new developments in HRM that could use district energy + combined heat & power (CHP) produced from natural gas, or RNG for heating, cooling, and electricity.
- **Large scale purchases of renewable energy on behalf of the community** – Heritage Gas has estimated that up to 500,000 GJ of RNG could be produced locally in HRM (enough to supply 20% of total natural gas demand in HRM). The RNG could be purchased by HRM to meet the heating needs of all buildings owned by HRM and to fuel Halifax Transit's conventional bus fleet. Conversely, this volume of RNG could provide space heat and domestic hot water for 6,000 homes in HRM.
- **Explore & support provincial regulatory requirements for renewable energy generation** – Heritage Gas is advocating for policies and programs to support and promote the production of RNG in HRM.

On-site (building scale) energy generation:

- **Combined heat and power** – Heritage Gas is supporting large commercial, institutional, and multi-unit residential building owners in HRM to evaluate the installation of on-site combined heat & power (CHP) generators that can improve energy efficiency in buildings to 80-90%, resulting in a 30-40% reduction in GHG emissions, lower energy costs, and greatly improved energy resiliency.
- **Hydrogen** – Heritage Gas is evaluating the role that 'green' hydrogen produced from renewable electricity could play to help achieve net-zero GHG emissions in HRM by 2050. Green hydrogen could be used for hydrogen fuel cells in Halifax Transit buses and ferries, heating and cooling homes and businesses. The existing natural gas infrastructure can be effectively used as a 'battery' to store surplus renewable electricity to significantly reduce GHG emissions while reducing the increase in peak electric demand that will be created by increased electrification. Green hydrogen

infrastructure is currently being developed in Ontario and a major expansion in the use of green hydrogen is anticipated to help meet 2050 net-zero GHG emission targets.

- **Heat pumps (water, ground, air)** – Heritage Gas is supporting the development of several new heating systems including natural gas heat pumps for space heat and domestic hot water, micro-combined heat and power generators, and natural gas-electric hybrid heating systems that provide the benefits of electric heat pumps during milder temperatures, while minimizing the impact on peak electric load during the colder winter months.
- **Biogas recapture from industrial processes** – Biogas is already being recaptured from a few industrial facilities in HRM and used for heating in buildings. Heritage Gas is interested in identifying more biogas recapture opportunities.



WASTE

Energy recovery & landfill management:

- **Landfill gas to energy (carbon capture, methane capture)** - Heritage Gas has collaborated with HRM to evaluate the feasibility of upgrading biogas from the Otter Lake Landfill to RNG and injecting it into the natural gas distribution grid.



WATER & WASTEWATER

Energy recovery:

- **Methane/biogas recovery for reuse** – Heritage Gas supports Halifax Water's studies to evaluate the production of RNG through anaerobic digestion at local wastewater treatment facilities. The RNG could be injected into HRM's natural gas distribution system to enable buildings, heavy trucks, and transit buses in HRM to displace their conventional natural gas use with renewable energy.

Heritage Gas has been pleased to participate in the development of HalifACT 2050's recommendations and we're looking forward to working with HRM to implement its climate change action plan.

Regards,

A handwritten signature in black ink that reads "Derek Estabrook".

Derek Estabrook
Vice President, Business Development
HERITAGE GAS LIMITED

December 6th, 2019

Dear Senior Leaders and Elected Officials,

I am writing on behalf of COINAtlantic in support of the HalifACT 2050 initiative. COINAtlantic staff members have attended the HalifACT 2050 meetings and we believe this is a vital initiative that needs your support. While the work our organization undertakes is largely focused on the coast and oceans, climate change is a transcending issue, affecting many aspects of our work in some way.

One initiative that COINAtlantic will be undertaking in 2020 is promoting the Atlantic Chapter of *Canada in a Changing Climate: Advancing our Knowledge for Action* report issued by Natural Resource Canada. Themes within this chapter include sea-level rise, overland flooding, critical infrastructure, natural resource industries, collaboration and capacity building, physical and mental health, education, communication, and outreach as it relates to climate change, as well as knowledge gaps and emerging challenges.

As we move forward with this deliverable, drawing from the expertise and dialog exchange provided through HalifACT 2050 will be invaluable for building community support and effectively engaging leaders in climate change action and mitigation in Atlantic Canada.

Yours truly,

Lydia Ross
Project Officer

Christina Macdonald
Executive Director

January 13, 2020

Mr. Jacques Dubé
Chief Administrative Officer
Halifax Regional Municipality
PO Box 1749
Halifax, NS B3J 3A5

Dear Mr Dubé:

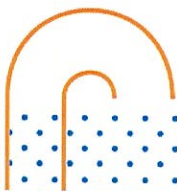
Letter of Commitment - HalifACT 2050: Acting on Climate Change Together

Halifax Water was asked to provide a letter of support for the HalifACT 2050 long-term climate change mitigation and adaptation plan for HALIFAX.

Halifax Water participated in the stakeholder consultation process, and recognizes the urgency to take action to reduce GHG emissions from the business as usual (BAU) projection. The consulting team identified nine action areas, including one for water, wastewater and stormwater.

There are several existing Halifax Water initiatives that will assist achievement of the broad reduction target for the community:

- Halifax Water has an Energy Management Committee that plans and delivers energy efficiency initiatives that have resulted in annual reductions of 2 – 4% per year since inception. The focus of this committee is being broadened to include GHG emission reduction, developing specific targets and actions for Halifax Water that will support HalifACT 2050.
- Halifax Water has taken positive actions towards adaptation through development of an updated Integrated Resource Plan to understand our climate vulnerabilities and reduce risk to our infrastructure and service delivery.
- Halifax Water is championing implementation of the Cogswell District Energy System as part of the Cogswell redevelopment. This will lead to significant reductions in GHG emissions versus the BAU case for new development.
- Halifax Water is planning anaerobic digestion for treating residual biosolids, to generate renewable gas and continuing to process the residual biosolids into Class A fertilizer for beneficial reuse. This could result in a reduction in conventional fossil fuel use and therefore GHG emissions.



- In 2000, Halifax Water was the first utility in North America to adopt what is now the AWWA M36 methodology for Water Loss Control. Through these efforts, Halifax Water has reduced system inputs by 40 million litres per day, resulting in a reduction of \$700,000 per year in operating expense, primarily from reduced consumption of electricity and water treatment chemicals. Halifax Water remains a leader in Water Loss Control.
- Halifax Water has developed a Wet Weather Flow Management Program that focuses on reducing inflow of clear water into its sewer system. This program not only reduces energy and chemical requirements to transport and treat wastewater but also creates additional capacity to accommodate increase in flows because of population growth.

The consultant engaged by the municipality, Sustainability Solutions Group (SSG), used assumptions and examples to show how reduced GHG emissions could be achieved in the water and wastewater area. Those assumptions and examples have not been assessed or validated by Halifax Water.

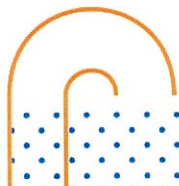
Halifax Water will continue moving forward with the above noted initiatives, developing an action plan to support GHG emission reductions associated with water, wastewater and stormwater services provided by the utility.

Sincerely,



Cathie O'Toole
General Manager, Halifax Water

CC: Craig MacMullin- Chair, Halifax Water Board
Russell Walker - Vice-Chair, Halifax Water Board



December 10, 2019

Halifax
Attn: Shannon Miedema
PO Box 1749
Halifax, NS
B3J 3A5

Dear Shannon,

Re: BOMA Nova Scotia Support for HalifACT 2050

On behalf of the Building Owners and Managers Association (BOMA) Nova Scotia I would like to express our support for actions taken to address climate change at a municipal level.

As you may be aware BOMA is an association of professionals involved in the management and maintenance of commercial buildings. BOMA has long been aware that more sustainable management practices in the management of commercial buildings make a difference in emission reduction.

In 2007 BOMA Canada introduced a nation-wide environmental certification program BOMA BEST, which is offered by BOMA Locals across Canada including BOMA Nova Scotia. BOMA BEST provides owners and managers with a consistent framework for assessing the environmental performance and management of existing buildings of all sizes. It covers ten key areas: Energy, Water, Air, Comfort, Health and Wellness, Custodial, Purchasing, Waste, Site, Stakeholder Engagement.

BOMA BEST allows building managers to constantly improve the efficiency of existing buildings and identify what retrofitting measures should be undertaken. Members who have undertaken BOMA BEST certification typically see improvements in all areas, but especially in energy and water consumption and waste diversion.

BOMA Nova Scotia remains committed to actions that improve the environmental performance of commercial buildings and the infrastructure that supports them, including electric powered transit.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dan Bourque', with a large, stylized initial 'D'.

Dan Bourque, RPA
President
BOMA Nova Scotia



Shannon Miedema
Energy and Environment Program Manager
Planning and Development
Halifax
miedems@halifax.ca

December 9, 2019

Dear Shannon and the HalifACT team,

As a stakeholder in the HalifACT 2050 process, the Ecology Action Centre is pleased to write a letter of commitment to HalifACT 2050's collective goals. We are fully supportive of the actions outlined and will be executing many complementary actions within our own work and organization.

The Ecology Action Centre is a member-based environmental charity in Nova Scotia. We take leadership on critical environmental issues from biodiversity protection to climate change to environmental justice.

Since 1971, the Ecology Action Centre has been working at the local, regional, national and more recently, international level to build a healthier and more sustainable world.

We are grounded in community, and a strong voice and watchdog for our environment. We work to catalyze change through policy advocacy, community development, and building awareness. We take a holistic approach to the environment and our economy to create a just and sustainable society.

EAC has several planned actions that are related to the themes outlined in the table of recommendations.

Regarding transit and active transportation, the EAC works with schools, community groups and municipalities to develop plans to build capacity, knowledge and resilience in communities and municipalities around active transportation (AT). We also advance policies, plans and strategies that support safe, accessible and connected AT use through communications strategies and government relations. We are dedicated to continuing this work.

The EAC also leads the Making Tracks program, which aims to increase AT access, safety, skills and confidence among Nova Scotian families. In addition to the continuation of this program, we will be piloting urban cycling workshops throughout Nova Scotia, including in HRM.

We will also be using our capacity to support the electrification of transportation. We currently lead advocacy efforts for a Zero Emissions Vehicle (ZEV) mandate in Nova Scotia. In addition to our advocacy for ZEVs, we are partnering with HRM to increase the use and distance travelled using of active transportation through an e-bicycle pilot project, "Easy Ride".

In relation to buildings, the EAC building is an example of what can be done elsewhere and it is representative of the kind of building initiatives and policies that the EAC is committed to advocating for. These include, but are not limited to retrofitting of existing builds, net-zero new builds, and increased industrial efficiency. We participate in the meetings and conversations at the Canadian Commission on Fire and Building Codes, in order to influence the development of Canada's Net Zero Energy Ready Building Codes. We work with local allies to promote local industry and stakeholder engagement in building code



consultations. We are working with national allies to catalyze the retrofit market transformation in Canada and are about to undertake a deep energy retrofit feasibility study. We continue to advocate for better building policies in Nova Scotia and HRM, through government relations, and advocacy for stronger policies including training programs, incentives and programs. We will continue our Culture of Efficiency work throughout Nova Scotia to promote efficiency as a climate and energy poverty solution. Finally, we will continue to intervene in regulatory hearings that lay our efficiency targets and funding for the province, and we will continue to advocate that we double and triple our energy efficiency targets in Nova Scotia.

EAC is one of the province's strongest proponents of renewable energy. We recently released a report outlining how the province can achieve 90% renewable energy by 2030. This includes deep energy retrofits of 80% of the existing building stock, 800 megawatts of wind power, and 480 megawatts of solar generation. We also released a complimentary Green Jobs Report earlier this year, that shows the costs and benefits of moving to 90% renewables, increasing electrification of transit, increasing public transit, and tripling down our efficiency efforts.

EAC's office is the most energy efficient office retrofit in Canada. We encourage any representatives from HRM to come tour our buildings and learn about how we achieved the such high performing results. We increased our square footage by 50% and reduced energy consumption by 89%. We also have plans to install photovoltaic solar panels on our roof to further demonstrate our commitment to renewable energy.

As a community member and stakeholder, the EAC is committed to contributing to the recommendations outlined by HalifACT 2050. The EAC also remains committed to the original objectives of HalifACT (then the Climate Action and Community Energy Plan) "...helping communities sustainably and equitably adapt" by engaging in "inclusive solutions to mitigation and adaptation". As such we would like to highlight that EAC is a provincial leader in coastal climate change adaptation and coastal protection initiatives, striving to mitigate the impacts of climate change for more than a decade. EAC has partnered with NS Environment on the creation of the Coastal Protection Act, which will restrict inappropriate coastal development and protect our coastal ecosystems. EAC's Educating Coastal Communities about Sea Level Rise (ECoAS) Project (www.sealevelrise.ca) has enabled our organization to work with municipalities across the province to enhance adaptive capacity by educating and empowering coastal citizens and communities. EAC actively communicates with HRM staff to highlight community coastal climate adaptation and protection issues within the municipality, such as undersized lots, inappropriate infilling and rezoning plan issues in dangerous areas. Along with a commitment to the HalifACT 2050 mitigation recommendations, the EAC commits to working with HalifACT 2050 to further its adaptation recommendations and strategies (e.g. to advancing coastal climate change adaptation for the municipality's 2,400 kilometres of coastline).

All of EAC's work relates to the HalifACT 2050 vision. Some of our work, on issues such as food security and wilderness conservation, is more indirectly related to the recommendations outlined by HalifACT 2050, but they are of equal importance.

In relation to food, the Halifax Food Policy Alliance, which we co-chair, is currently working with HRM to develop a Food Action Plan in order to build on HRM'S momentum, coordinate existing policies with action, and established trackable outcomes. By maximizing locally available resources and supporting the inherent community connections historically created by food, this Food Action Plan will help restore more sustainable and productive connections with nature in the region, increase resiliency of communities and support both climate mitigation and adaptation.



In relation to terrestrial ecosystem preservation, the EAC's work has included advocating for more protected areas, including Regional Parks in HRM. Currently 12.4% of Nova Scotia's landmass is protected. We are advocating that 17% of Nova Scotia's landmass be formally protected for nature conservation by 2030. These new protected areas are needed for ecosystem resilience in a time of rapidly changing climate. They also help combat biodiversity loss, as protected areas have been shown (globally) to have higher species diversity and higher wildlife populations than areas not under formal protection.

Thank you very much for the opportunity to participate in the HalifACT community and stakeholder engagement process and to express our support for your efforts. We congratulate the entire HalifACT 2050 team for their hard work, vision, and efforts.

Sincerely,

Marla MacLeod

Managing Director
Ecology Action Centre

Our File No.:

December 17, 2019

HalifACT 2050
Halifax Regional Municipality
40 Alderney Drive
Dartmouth, NS B3J 3A5
owent@halifax.ca

Dear HalifACT 2050:

We are pleased to provide you with this letter of support in principle for climate action in the Halifax Regional Municipality and the high-level goals of HalifACT 2050. Nova Scotia Environment looks forward to opportunities to advance shared climate action objectives with the implementation of this plan.

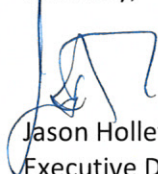
Nova Scotia Environment is committed to advancing climate change mitigation and adaptation in the province. As you know, the Government of Nova Scotia released the *Sustainable Development Goals Act* on October 30, 2019, which sets new goals to address climate change and to continue advancing Nova Scotia's economic, social and environmental well being. The *Act* commits Nova Scotia to ambitious new greenhouse gas reduction targets - 53% below 2005 levels by 2030 and to net zero emissions by 2050. These are the most ambitious targets in the country.

The *Act* also requires the development of a Climate Change Plan for Clean Growth by December 2020. In the coming months, we will be consulting on the development of this plan with stakeholders and members of the public. The Plan will chart our pathway to achieving our greenhouse gas reduction targets, building a resilient province that can adapt to the impacts of climate change, accelerating the integration of sustainable technologies and promoting clean inclusive growth.

We will also continue to implement existing initiatives that reduce provincial greenhouse gas emissions and that increase our resiliency to the impacts of climate change, such as the Cap-and-Trade and the Climate Adaptation Leadership programs.

We are committed to working with partners to achieve shared goals in climate change mitigation and adaptation. We look forward to the launch of HalifACT 2050 and to the opportunities that it will bring for Halifax and for the province of Nova Scotia.

Sincerely,



Jason Hollett
Executive Director
Climate Change Unit

/JH



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March 4, 2020

Shannon Miedmema, MES
Energy & Environment Program Manager
Planning & Development
Halifax City Hall
1841 Argyle Street
Halifax NS, B3J 3A5

Dear Shannon,

I am writing on behalf of EfficiencyOne, the operator of Efficiency Nova Scotia, to highlight our support for HalifACT 2050 and our commitment to taking climate action by continuing to provide Nova Scotians with energy efficiency programming that will help save money and reduce their carbon footprint while creating more green jobs in Nova Scotia.

We know that cities produce about half of Canada's carbon emissions; a strong commitment to climate action is critical to ensuring that Canada is able to meet the targets set out in the Paris Accord. We also know that strong leadership and partnerships will be key as we aim to identify and accelerate action in cities to achieve our climate targets.

Halifax has shown, and continues to show, great leadership on climate action and has long been a valued partner. Working with Efficiency Nova Scotia, Halifax hired an On-Site Energy Manager in 2018 that works with staff to identify and obtain funding and financing opportunities, and plan, implement and evaluate energy saving projects. To date through this work, over 52 projects have been completed realizing over \$750,000 in savings and over 5.5 eGWh savings. This equals roughly 3500 tonnes of CO₂e avoided annually. Halifax has also demonstrated great leadership through programs like Solar City and ensuring that climate actions is top of mind for Haligonians.

As Halifax looks to the future, energy efficiency can and should continue to play a major role in reducing greenhouse gas emissions. It is a fast, cost-effective way for individuals and businesses to save money by reducing energy costs, while also reducing their climate impact.

In Nova Scotia, the energy efficiency industry is a growth industry. With over 1,400 Nova Scotians employed full-time in the energy efficiency sector and over 175 businesses in Halifax working in the energy efficiency industry as part of our Efficiency Trade Network, it is a respected contributor to economic growth and continues to develop more partnerships, more employees, more suppliers and more customers every year.

Nova Scotia also leads the country in energy efficiency programs. Through Efficiency Nova Scotia we achieve high energy savings and are working to reduce energy poverty with innovative products and services. To date we have helped Nova Scotians save more than \$1 billion in energy costs, while avoiding 1 million tonnes of CO₂ annually. We've also helped low income homeowners and tenants save more than \$27 million on their energy bills.

Shortly, EfficiencyOne and the Federation of Canadian Municipalities will be partnering with Halifax to launch Low Carbon Cities Halifax (LC3 Halifax). Through LC3 Halifax we will accelerate urban climate solutions by investing in solutions or initiatives that will build community resiliency. LC3 Halifax will help commercialize urban low-carbon solutions that would otherwise not get off the ground and focus on taking proven low-carbon solutions to full-scale adoption by supporting and undertaking incubation, demonstration, and de-risking of low-carbon solutions and by working with diverse partners within urban areas.

While Halifax has made significant progress, there is much more we can do to help Canada, and Halifax, achieve its emission reduction targets. The energy efficiency sector is a significant contributor to Nova Scotia's sustainability goals and is eager to continue to play a major role in reducing greenhouse gas emissions and contribute to economic and environmental prosperity.

Regards,

Stephen MacDonald
Chief Executive Officer



Office of the Municipal Clerk
P.O. Box 1745
Halifax, NS
B3J 3A5

June 23, 2020

Re: Support for “HalifACT 2050: Acting on Climate Together”

Dear Mayor Savage and HRM Councillors,

We are writing to offer support in principle for the *HalifACT 2050: Acting on Climate Together* plan, and to congratulate the Municipality on successfully adopting HalifACT 2050 today at Council. Public Health Central Zone (CZ) supports the Municipality’s efforts to respond to the risks of climate change through the implementation of *HalifACT 2050* and beyond. Public Health CZ has been a stakeholder in the process throughout the plan’s development. We recognize that effective, ambitious and equitable climate change mitigation and adaptation strategies are needed and governments at all levels have a role to play.

Climate change has been identified as the greatest threat to public health of the twenty-first century¹, with impacts ranging from the potential increases to the incidence of injuries, heat and cold related illness, and infectious diseases, as well as negative impacts for food security and mental health. Climate change will also lead to more frequent extreme weather events, rising sea levels, decreased food and water quality and quantity, the spread of vector-borne disease, and migration and conflict². The context of the COVID-19 pandemic has demonstrated the vulnerability of our communities in emergency situations, and the importance of working together for emergency preparedness in future climate- related emergencies.

Strategies for ambitious climate action have many health co-benefits, and align with a number of key Public Health areas of interest, such as active transportation and public transit; food security; neighbourhood design; housing; and natural environments. We encourage continued alignment between *HalifACT 2050*, and other HRM initiatives such as the Integrated Mobility Plan (IMP), Green Network Plan and the Food Action Plan, several of which Public Health CZ continues to partner on and support. We were also pleased to see the guiding principles of equity and inclusivity included in the plan. As with the COVID-19 pandemic, climate change will disproportionately affect systemically disadvantaged groups¹, and is important to acknowledge the impact of the social determinants of health and implement strategies to address health and social inequities. We encourage HRM to continue to invest in engagement with community members and to work in partnership in order to effectively address these complex issues.

Public Health Central Zone Office
7 Mellor Ave, Unit 5
Tel (902) 481-5800
Fax (902) 481-5803
Website: www.nshealth.ca

Public Health-CZ congratulates the Municipality on this significant milestone in efforts to advance climate change mitigation and adaptation. We look forward to working with HRM to further understand and support implementation of the plan and continuing to work in partnership to protect population health and advance evidence informed climate policy.

Respectfully,



Marcia DeSantis BScN, RN, MPH
Director
Public Health, Central Zone



Dr. Jessica Jackman MD, MPH,
FRCPC, FACPM
Regional Medical Officer of Health



Holly Gillis
Healthy Communities Manager
Public Health, Central Zone

Cc: Shannon Miedema, Energy & Environment Program Manager, Planning & Development

References

1. IPCC, Masson-Delmotte, V., Zhai, P., Pörtner, H.-O., Roberts, D., Skea, J., Shukla, P.R., Pirani, A., Moufouma-Okia, W., Péan, C., Pidcock, R., Connors, S., Matthews, J.B.R., Chen, Y., Zhou, X., Gomis, M.I., Lonnoy, E., Maycock, T., Tignor, M., and Waterfield, T. (eds). 2018. Global warming of 1.5°C: An IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty, IPCC.
2. Lee, M., 2018. As cited in Lancet Countdown, 2018: 2018 Lancet Countdown on Health and Climate Change Brief for the United State of America. Salas RN, Knappenberger P, Hess JJ. Lancet Countdown U.S. Brief, London, United Kingdom, 32.