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Federal Sustainable Development Strategy Comments
c/o Environment and Climate Change Canada
Ottawa, ON

April 2, 2019

Please accept this submission of comments from CUSP's member-led municipal peer network of sustainability practitioners. CUSP's membership consists of the climate and sustainability subject matter experts from Canada's 16 large and leading cities[1]. The comments contained within this submission were developed by an ad hoc subcommittee of CUSP created for the purpose of reviewing and responding to the Federal Sustainability Development Strategy. The FSDS subcommittee is comprised of climate and sustainability staff from the Cities of Vancouver, Edmonton, Toronto, Montreal, and the Regional Municipality of Halifax.

The comments contained within this document are structured into three types:

A. Suggested refinements to the latest amendment to the Federal Sustainable Development Act
B. Observations and recommendations to the 2019-2022 Federal Sustainable Development Strategy
C. Examples of partners in action from CUSP and member cities of its FSDS subcommittee

Two themes arose in CUSP's observations and suggestions for continuous improvement of both the FSDA and FSDS: These themes are:

1. **Equity Integration and Prioritization:**

The suggestion to continue the trend of further integrating all forms of inequity into the FSDA and FSDS. The most recent amendment to increase the representation of indigenous peoples on the Advisory Council and to ensure more diverse representation of the individuals to the Advisory Council acknowledges and addresses systemic structural equity issues. Through the inclusion and participation of traditionally underserved groups to the Advisory Council, future FSDS's are more likely to embrace and embed procedural, distributional and structural equity issues in addition to the intergenerational equity issue implicit in the current Act's purpose and the current Strategy's goal statements.

Equity integration is an emergent issue of greatest priority to CUSP's membership. CUSP cities are applying an equity lens to their updates of climate action plans and other strategic sustainability

[1] Collectively CUSP the CMAs of CUSP member cities account for 50% of Canada's population, or 18M people and 55% of GDP, or $1Trillion annually. As of March 31, 2019, CUSP's members include the local governments of: In BC (Victoria, Saanich, Vancouver, North Vancouver, Surrey, Richmond, New Westminster), in the Prairies (Edmonton, Calgary, Saskatoon, Winnipeg), in Ontario (Toronto, Mississauga, Ottawa), in Quebec (Montreal), and in Atlantic Canada (Halifax)

documents as well as their policies and programs. CUSP's two priority projects over 2018 and 2019/20 are capacity building equity projects. And, all of CUSP's projects are designed, developed, and implemented with equity objectives front of mind. We are building up our knowledge and experience in this area and we invite a conversation to share what we are learning and doing to address i) access and inclusion issues, ii) unjust distribution of benefits and burdens, and iii) past harms resulting from imbalances of power established, and perpetuated by, our systems and institutions.

2. **Enhanced Collaboration with Municipal Sustainability Practitioners:**

Modernization of the relationship between senior levels of government and municipalities is underway. Cities seek a more collaborative partnership on the complex issues facing Canadians; a relationship that recognizes and values the important role and leadership local governments serve in sustainable development and the quality of life of Canadians.

Specifically, we suggest that a diverse mix of municipal sustainability practitioners from both urban and rural and remote communities participate on the Sustainable Development Advisory Council and be included throughout the FSDS as partners, both in the development of the FSDS, but also in practice throughout the year.

The comments contained in this submission are being sent peer-to-peer from climate and sustainability practitioners in local government to our counterparts in the federal government. These comments seek to model a new partnership between subject matter practitioners that is informal/apolitical, supportive, and collaborative. From the exchange of knowledge and perspectives, the highest impact solutions will be identified, developed, and executed.

We would enjoy a discussion on these comments with ECCC staff responsible for finalizing the FSDS. We would also welcome more continuous, iterative, and collaborative dialogue with individual departments contributing to the FSDS and developing Department Sustainable Development Strategies for the areas of the FSDS they have responsibility.

We are happy to provide more detail or clarification on any of the topics contained within this submission. We are also able to provide more examples of the work being done by CUSP and its membership of municipalities working to advance sustainable development in Canada's most populous cities. The examples provided in section 3 are derived only from the subcommittee members who reviewed the FSDS; we could very easily collect and share examples from any of our 16 members.

An About CUSP section has been added to the end of this document; likewise, CUSP's website provides more information about CUSP and the work we are advancing together.

Regards and thank you for your recent work to make thoughtful amendments to the Federal Sustainable Development Act and generate this draft Strategy.

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The Federal Sustainable Development Strategy (FSDS)

The FSDS is a collection of the work, plan documents, and commitments from the fed govt on sustainable development impacting the quality of life in Canada. As such, FSDS targets and actions are originated in the plans and strategic documents from departments across Government that feed into the FSDS's reporting on Government's decisions and actions related to sustainable development. The FSDS is required by the Federal Sustainable Development Act to be updated every three years.

The Federal Sustainable Development Act (FSDA)

The Federal Sustainable Development Act (FSDA) provides "the legal framework for developing and implementing an FSDS" and serves to "make decision-making related to sustainable development more transparent and subject to accountability to Parliament".

Recent Amendments to the Federal Sustainable Development Act (FSDA)

Bill C-57 recommended amendments to the FSDA and, after three readings, received Royal Assent by the House of Commons on February 28, 2019. A number of significant changes to the FSDA resulting from this Bill relate to the omissions we note in the draft FSDS for 2019-2022. The draft FSDS does not yet reflect all the significant changes to the FSDA resulting from Bill C-57.

Specifically, many of the amendments to the FSDA have the effect of making the FSDA more human-centred with reference to equity and social inclusion and quality of life. These updates to the FSDA better align the Act with Canada's Agenda 2030 commitment and the UN's Global Goals, also known as the SDGs or Sustainable Development Goals. The SDGs are grounded by a fundamental principle of "No one left behind". Reporting through the FSDS will form a significant portion of Canada's reporting on its progress in advancing the SDGs so this greater alignment of the FSDA to the SDGs makes good sense.

This expanded purpose of the FSDS, as directed by the newly amended Act, makes more explicit the scope to be covered by the term 'sustainable development' which concept is intended to encompass all three pillars. Throughout United Nations' texts, the UN refers to the "interdependent and mutually reinforcing pillars" of sustainable development as economic development, social development, and environmental protection. This change is also consistent with the emerging trend among municipal sustainability practitioners of applying an equity lens to their historically more environmentally-focused portfolios of work.

The scope of the FSDS is broadened as a result of specific amendments to the FSDA's purpose statement in Section 3 and principles in Section 5 for the development and implementation of the FSDS.

1) The purpose statement contained within the FSDA no longer limits the FSDS's purpose to the "development and implementation of a strategy that will make environmental decision-making more transparent and accountable to Parliament". The revised purpose has been broadened to "the development and implementation of a strategy that makes decision-making related to sustainable development more transparent and subject to accountability to Parliament, promotes coordinated action across the Government of Canada to advance sustainable development, and respects Canada's domestic and international obligations relating to sustainable development, with a view to improving the quality of life of Canadians".

2) The revised FSDA contains a series of principles which now follow the 'basic principle' contained in the FSDA both prior and subsequent to this recent amendment. This basic principle is "The Government of Canada accepts the basic principles that sustainable development is based on an ecologically efficient use of natural, social and economic resources and acknowledges the need to integrate environmental, economic, and social factors in the making of all decisions by government". Following this principle are now a number of subprinciples that expand upon this basic principle to talk about the importance of involving Aboriginal peoples acknowledging that sustainable development is a continually evolving concept and may be achieved through protection of the environment and human health of current and future generations, but also the promotion of equity, conservation of cultural heritage, and respect for domestic and sustainable international obligations. Additional subprinciples related to principle of collaboration, public engagement, and meeting measurable targets through the establishment of objectives, strategies, and indicators for reporting on progress towards meeting these objectives.

Integration of the Act's new purpose and principles to the development and implementation of the 2019-2022 FSDS.

Understandably, the draft FSDS, which preceded the ascension of Bill C-57, is more narrowly focused on environmental matters; however a number of the goal areas, while primarily environmental, do include equity elements in their top-level, long-term goal statements (e.g. modern and resilient infrastructure, clean energy, clean drinking water, safe and healthy communities).

The recent amendment to the FSDA has received Royal Assent, but "The Act comes into force on a day to be fixed by order of the Governor in Council", and this order has yet to occur as of March 31, 2019. Presumably, the amended Act will come into effect prior to the fall federal election.

The current draft of the FSDS already accommodates some of the most recent changes, notably the recognition of Canada's domestic and international obligations specific to its Agenda 2030 commitments and the UN SDGs which is detailed in a four-page section, "Canada in the World" (pages 3 to 6 of FSDS). Additionally, a number of the new principles which are not yet in force, are listed as principles reflected in the FSDS and its process of development (page 8). It is unclear whether the final FSDS will be updated to reflect the significant change in intent of the FSDS as result of the Bill C-57 amendments to the Act.

Were the final 2019-2022 FSDS to fully incorporate the amendments to the Act's purpose and principles, this new lens of inclusivity would necessarily require the address of many of the observations and recommendations contained below which majority relate to the absence of equity and affordability considerations, and notation of the interdependencies of these two core challenges with all 12 of the community-based goal areas (excluding 13th goal area of Greening Government) of the FSDS.

A. Suggested Refinements to the Latest Amendment of the Federal Sustainable Development Act

It would seem unlikely that there be another amendment proposed to the FSDA in coming months, but should there be we would like to recommend the following additions to the new principles contained in Section 5 of the FSDA.

1. Equity Definition

Update equity principle to define equity and broaden its definition beyond intergenerational equity to also include the other 3 types of equity being procedural, distributional, and structural.

Suggested Resource:
One often cited source for this multi-type definition of equity is derived from Angela Park and included in '[Equity in Sustainablility: An Equity Scan of Local Government Sustainability Programs]':

"Equity in sustainability incorporates procedures, the distribution of benefits and burdens, structural accountability, and generational impact. This includes:

PROCEDURAL EQUITY- inclusive, accessible, authentic engagement and representation in processes to develop or implement sustainability programs and policies

DISTRIBUTIONAL EQUITY – Sustainability programs and policies result in fair distributions of benefits and burdens across all segments of a community, prioritizing those with highest need.

STRUCTURAL EQUITY – Sustainability decision makers institutionalize accountability; decisions are made with a recognition of the historical, cultural, and institutional dynamics and structures that have routinely advantaged privileged groups in society and resulted in chronic, cumulative disadvantage for subordinated groups

TRANSGENERATIONAL EQUITY [or intergenerational] – Sustainability decisions consider generational impacts and don't result in unfair burdens on future generations.

The City of Toronto's Transform TO plan defines equity slightly differently and uses the broad categories of health, equity, resilience, and economic prosperity to guide climate action priorities and impact measurement. Although cities may define equity differently for their purposes, the principles agreed upon are similar to those defined by Angela Park shown above. Using these principles, ensures we go beyond the Bruntlandt Report's reference to intergenerational equity regarding responsibility to future generations, and moves towards the UN SDG's fundamental principle of 'no one left behind".

2. Sustainable Development Advisory Council

a. Update section 8 (1) to the representatives on the Sustainable Development Advisory Council. Currently the Act specifies the Advisory Council is to include one representative from each province and territory, six representatives of Aboriginal peoples and three representatives from each of environmental NGOs, organizations representative of business and organizations representative of labours. The Act's recent amendment doubled the number of aboriginal representatives from three to six reflecting the newly articulated principle of involvement of Aboriginal peoples and traditions in the development and implementation of the FSDS.

Other suggestions to improve the diversity and inclusion of this Advisory Council, consistent with the Act's new principle of collaboration, would be to include representatives from:

> **"FCM is calling for a modernized relationship that brings our orders of government together at one table to tackle national challenges, develop new tools for collaboration, and build better lives."**
>
> - **Vicki May Hamm, FCM President and Mayor of Magog, Quebec, March 15, 2019**

i. **Municipalities** – Local governments are recognized leaders in taking action on climate change, have influence over more than 50% of GHGs, own and operate the majority of public infrastructure in cities, and have policies, programs and services that impact and advance most of the 13 goal areas included in the draft FSDS and many of the UN SDGs 17 goal areas.

   Historically municipalities have been seen as creatures of the province, however, the 2019 federal budget and other recent actions demonstrate a modernization of the relationship between senior levels of government and municipalities, one that is more collaborative and recognizes the important role and leadership local governments serve in sustainable development and the quality of life of Canadians.

   Adding representatives from municipalities to the Sustainable Development Advisory Council would be consistent with recent shifts to modernize the relationship between municipalities and the federal government. Specifically, we suggest that a diverse mix of municipal sustainability practitioners from Canada's largest metropolitan areas, mid-sized urban and rural and northern/remote communities participate on the Advisory Council.

ii. **Community development/social justice NGOs** – Including representatives with lived experience and/or community partner organizations that work with underserved populations, will help to ensure that the FSDS, its targets, milestones, actions and indicators are developed and implemented through an equity lens.

b. Update Section 8 (1.1) related to demographic representation to explicitly name "race, ethnicity and indigeneity" as well as "disability", as demographic considerations along with age and gender when appointing representatives to the Advisory Council in order to "reflect the diversity of Canadian society". Race, ethnicity, and indigeneity are significant to the discussion of structural inequity and to the intersectionality of marginalized populations, and requires naming in order to ensure adequate representation. Disability, in the context of the FSDS and its current goal areas also seems uniquely significant to include as access to nature, lakes and rivers, safe and healthy communities, and the social inclusion objective of modern and resilient infrastructure would also appear to have unique considerations for people with disabilities.

B. Observations and Recommendations to the Federal Sustainable Development Strategy

These comments include observations about notable omissions in the FSDS's targets, milestones, starting point, priorities, contributing actions and indicators. The recommendations included are not prescriptive, they do not suggest specific language or action to be taken; instead, they serve to highlight notable omissions and the reason for why it is believed that these omissions require inclusion.

Collectively, we suggest the omissions noted in this submission require address because these issues:

a) represent areas within the jurisdictional authority of the Federal government and requiring Federal action to advance/address;

b) if absent from the FSDS, will not allow the Government to achieve progress on the long-term goal statements contained within the 2019-2022 FSDS; and

c) are consistent with the purpose and principles of the Federal Sustainable Development Act (FSDA), as amended February 28, 2019. The FSDA provides "the legal framework for developing and implementing an FSDS" and serves to "make decision-making related to sustainable development more transparent and subject to accountability to Parliament".

Presumably, many of the recommendations provided to address these omissions through inclusion to the FSDS would necessitate an amendment to the underlying plans that inform the FSDS. Since the development of the FSDS is not intended to generate amendments to underlying plans, to address omissions in the FSDS resulting from omissions in underlying master plans, we are suggesting that the FSDS could include:

a) **Emergent concepts/issues section** – A new section contained within the front of the FSDS could explore the emergent concepts and issues that necessitated recent amendments to the Federal Sustainable Development Act and/or led to the more inclusive and human-centred framing of the current draft's goal statements. Much as the draft FSDS contains a four page section, Canada in the World, to introduce the domestic and international obligations of Canada and alignment of the FSDS to the SDGs, other emerging issues related to equity (e.g. energy poverty and energy justice; distributional, procedural, structural and intergenerational equity; climate justice; and a just transition to a low carbon economy).
b) **Introduction and Starting Point narratives** – The FSDS narratives included in each goal area related to 'why is this issue important?" and "Canada's starting point" could be amended to include text related to these omissions and what is currently being done to measure them.
c) **Key Priorities and Contributing Actions** - Enabling actions in the FSDS's key priorities could direct the departments, through their upcoming Department Sustainable Development Strategies (DSDS), to analyse and address these omissions in order that the 2023-2026 FSDS be inclusive of targets, milestones, priorities, actions and indicators for these issues.
d) **Indicators** – FSDS indicators could be amended to begin measuring baseline information on these omissions. Evidence-based data is important to analysing Canada's starting point on these issues. Moreover, an effort to establish indicators for these issues may also reveal data gaps.

General - Recommendations Pertaining to Multiple Goal Areas

a) Update Short-Term Milestones, Contributing Actions, and Partners Taking Action by making reference to and extracting examples from the following:
   - Investing in Canada Plan programs and funded projects ($95B)
   - Low Carbon Economy Fund programs and funded projects ($2B)
   - Municipal Climate Innovation Program components and funded projects ($75M)
   - $1B for energy efficiency consisting of:
     - $650M for energy efficiency retrofits of community buildings, municipal initiatives for home energy retrofits, and social housing energy retrofits and on-site renewable energy generation.
     - $350M consisting of $183M for Low Carbon Cities Canada (LC3), a 10-year initiative to establish and endow seven low carbon innovation centres that will demonstrate and de-risk high impact climate solutions in each of Vancouver, Edmonton, Calgary, Toronto, Ottawa, Montreal and Halifax, as well as scale out these innovations across Canada. The remaining $167M is to be used to scale up and scale out innovation across the country from LC3 centres and others.

b) Recognize municipalities as partners by updating the About Partners sections of multiple goal areas, the Talking with Canadians and Working Together sections of the FSDS as well as the Role of Public Consultation in Annex 1 to the FSDS. We recommend that municipal sustainability practitioners be consulted in the development of various goal areas of the FSDS by establishing a municipal cohort/committee comprised of a diverse mix of staff representatives from both urban and rural and remote communities.

c) The format of the document and online tool related to goal areas and sectors may be improved if:
   a. Clean energy was broken into three subcategories for energy generation, buildings and transportation.
   b. Sustainable food was expanded to Sustainable consumption and production with subcategories for food, goods, and zero waste.
   c. Buildings were identified as a separate sector on the FSDS's online, interactive tool for filtering priorities and actions of the FSDS.

d) The indicators in Annex 1 to the FSDS (pages 100 – 102) measured the impact/progress on the social equity (access, inclusion) and affordability components contained within many of the long-term goal statements (e.g. modern and resilient infrastructure, clean energy, clean drinking water, safe and healthy communities). Some of these metrics may be qualitative in nature and necessitate new questions be included in the Census by Statistics Canada. For example:
   a. To measure energy poverty in the Clean Energy goal area, there would be a quantifiable measure of energy cost burden represented by energy expenditures as a percentage of average income, but to identify hidden energy poverty, would also want to ask through the census whether there was a time in the last 12 months that the respondent struggled to pay their energy bills, and whether they are able to maintain their home at a comfortable temperature.
   b. To measure health and wellbeing in the safe and healthy communities, there are a number of quantifiable human health indicators related to air quality and pollutants, as

well as public health statistics related to instances of asthma and other respiratory problems, suicide rates, and depression and anxiety medication sales, etc. However, none of these are proxies for measuring wellbeing and presumably would require a component of wellbeing to be perception-based and be measured through the Census's survey.

Recommendations Pertaining to Effective Action on Climate Change Section

A. Revisiting the Need to Adjust and Accelerate Climate Targets

Observation:

This FSDS goal area includes the medium-term target to "by 2030, reduce Canada's total greenhouse gas emissions by 30%, relative to 2005 levels." This target is derived from the Pan-Canadian Framework on Clean Growth and Climate Change (PFCGCC)

The latest UN IPCC report says that global emissions must be reduced 45% by 2030 based on 2010 levels in order to avoid global catastrophe. In response to this latest report and the call for greater and accelerated actions to limit global average temperature rise to well below 2 degrees, many municipal councils across Canada have declared climate emergencies and are reviewing their climate action plans to revise their 80x50 targets to accelerate this level of change to 2030 for example. Cities declaring climate emergencies so far include Vancouver, Halifax, Capital Regional District (Victoria region), Richmond, Kingston, Hamilton and 300+ municipalities in Quebec inclusive of the Montreal metro region (CMM). Internationally, cities like London and Los Angeles have also declared climate emergencies.

Recommendation:

- Include discussion of the latest IPCC report and the inadequacy of the PFCGCC's 2030 GHG reduction target for Canada in the Introductory and Starting Point narratives of this goal area and the PFCGCC text box.
- Include as a key priority the action to evaluate the adequacy of Canada's GHG reduction target and the need to revise this target and corresponding actions in the PFCGCC in recognition of a climate emergency

B. Other Technical Comments

- In Key Priorities - Add reference to the priority actions resulting from the recommendations contained in the final report of the Task Force on Just Transition for Canadian Coal Power Workers and Communities (Dec 2018)
- In Contributing Action related to use of legislation and regulations to limit GHGs, is there work that can be referenced or prioritized for action related to:
    - introduction of road pricing/congestion pricing?
    - mandatory building energy labelling?
    - mandatory large building energy benchmarking?
- In Contributing Action related to working with partners, municipalities are named in the introductory sentence, but none of the examples offered include municipalities. As municipalities are showing great and early leadership on climate action, it would be appropriate to harvest some of the many federal policies, programs or funding that are being executed on the ground by municipalities.

- In Our Partners section - Municipalities are named as other partners with a role to play. None of the land use policies or buildings, transportation and waste policies and programs common to local government climate actions are noted in the description of municipal actions. Climate planning by municipalities for both mitigation and adaptation is also common place in Canada's large and midsize cities. Municipalities, through national peer networks like the Canadian Urban Sustainability Practitioners, organizations such as the Federation of Canadian Municipalities and international networks like the Urban Sustainability Directors Network, Carbon Neutral Cities Alliance, C40 and 100 Resilient Cities are incubating climate innovation, sharing knowledge and resources, and scaling up and scaling out climate solutions.
- In Taking Action section for general public, include
    - Building a home to high energy performance standards like Passive house, the Zero Carbon Building Standard, R-2000 and EnergyStar.
    - Energy efficiency retrofits, including switching from heating oil and natural gas heating equipment to a low carbon, renewable energy source like heat pumps.

Recommendations Pertaining to Clean Growth Section

A. Acknowledging the Need and Recommendations for a Just Transition

Observation:

The final report of the Task Force on Just Transition for Canadian Coal Power Workers and Communities was issued in December 2018, but there is no reference to this issue, the work and recommendations of the taskforce, or the resulting actions to be taken by Government to ensure a just transition for works in the fossil-fuel industries.

Recommendation:

- Include summary of the findings and recommendations of the Just Transition Taskforce's report
- Include as a key priority, the implementation actions resulting from the recommendations contained in the Just Transition taskforce's reports, and include appropriate short-term milestones and indicators to measure progress.
- In Take Action section for general public, include specific actions targeted toward coal power workers and communities.

Recommendations Pertaining to Clean Energy Section

A. The Need to Ensure Equity in Clean Energy Transformation

Observation:

The FSDS's long term goal for clean energy, "All Canadians have access to affordable, reliable and sustainable energy" is excellent because equity is implicit through the inclusive use of "all Canadians". To achieve the level of GHG reductions necessary to avert a global catastrophe, all Canadians must be able to participate in the clean energy transition which requires that sustainable energy options be practically accessible to them and competitive with the conventional fossil fuel sources these options need to replace. Moreover, we know that the impacts of climate change are not justly distributed, the risks and vulnerabilities from climate change disproportionately burden marginalized populations, including low income households, seniors, indigenous peoples, and people of colour among traditionally underserved groups. Establishing a goal that calls for addressing procedural, distributional, and structural inequities to our clean energy transition is necessary to meeting our targets, but also acknowledges and seeks to rectify climate and environmental injustices.

This long term goal further reinforces its pursuit of equity and inclusivity by implied reference to the two specific energy equity issues in Canada.

1) 'Affordability' speaks to the issue of households experiencing energy poverty, broadly meaning household that struggle to meet their energy needs
    - Resources:
        - link to PhD thesis by Maryam Rezaei on energy poverty,
        - An Equitable Clean Energy Transition – 8 min webinar presentation by Allison Ashcroft, managing director of the Canadian Urban Sustainability Practitioners (CUSP)
        - An Introduction to Energy Poverty in Canada – 17 min webinar presentation by Maryam Rezaei

2) 'Reliability' speaks to the issue of energy justice
    - Resources:
        - link to Masters thesis by Eryn Fitzgerald on energy justice for indigenous communities

Recommendation:

While the long term goal for clean energy, "All Canadians have access to affordable, reliable and sustainable energy" is excellent in its attention to the most significant energy equity issues of affordability (energy poverty) and reliability (energy justice and access), unfortunately, the goal area's targets, milestones, key priorities, contributing actions and indicators do not advance the goal of ensuring affordable, reliable, accessible clean energy. The starting point does not establish a baseline for the equity elements of this goal and the absence of mid-term targets and short-term milestones related to energy equity will make it challenging to measure progress; without intentionally embedding energy equity into milestones and targets, it is unlikely that Government actions will inadvertently advance energy equity and it is very likely that actions taken without this intentionality could result in unintended and negative consequences for underserved communities and households experiencing energy poverty.

- Include in current state discussion and action plan/key priorities a commitment to measuring and working to reduce energy poverty and energy justice (i.e. IPPs as means of self-determination for indigenous communities) from Canada's clean energy transition.
- Measure, report, engage, and intervene on energy costs at the smallest geographic scale to identify and address disproportionate and unjust energy cost burdens.

B. Expand Recognition of Clean Energy Access Issues Beyond Rural and Remote Communities

Observation

Reference is made in the draft FSDS to the actions the Federal Government is taking to reduce reliance on diesel in rural and remote communities through NRCan's Clean Energy for Rural and Remote Communities Program. While significant, this isn't the only energy access issue and reliance on carbon intensive fuels for home heating are not limited to diesel nor to rural and remote communities. Many rural and remote areas also have high uses of propane and heating oil. There are also a number of communities deemed neither rural nor remote, that due to the late arrival of natural gas and the age of their building stock, have high proportions of homes and small commercial buildings using very carbon-intensive fuels for heating (i.e. significant heating oil use coast to coast from Victoria BC to Halifax, NS).

While grid-tied electricity for heat pumps may be available, there are still significant barriers to access for switching from heating oil and propane tanks to electric heat pumps, namely the cost of tank removal and contamination testing, and the equipment and installation costs of a heat pump. In most instances, the homes remaining on heating oil are occupied by low and moderate income households and renter households. Heating costs for these households are disproportionately higher due to the higher cost of heating oil and propane. A program to transition the significant number of heating oil households in the densely populated small and medium-sized cities in which there remains a prevalence of heating oil would be cost effective to run and would address both climate and equity and affordability objectives.

Recommendation

- Include in current state discussion and action plan/key priorities a commitment to measuring and working to reduce energy access issues through Canada's clean energy transition
- Measure, report, engage, and intervene on energy access issues at the smallest geographic scale to identify and address disproportionate and unjust energy access issues across the country and among different housing and household types.

C. The Need for Balanced Emphasis on Decarbonization of All Energy Uses and Fuel Sources

Observation

The Clean Energy goal section focuses on electricity generation and energy efficiency, however is quite silent in its targets, milestones, starting point, priorities and contributing actions as it relates to the need for decarbonization of non-electric energy sources and to electrification of many of these end uses. Only with clean and renewable electricity will we realize the full benefits from the electrification of buildings and transportation, so the work to eliminate carbon from our electricity grids and increase use of solar, wind and other forms of distributed renewable electricity is necessary. However, in order to achieve the long-term goal of access to affordable and reliable sustainable energy, requires priority actions (with impact measurement) to transition off of carbon-intensive thermal loads, transportation fuels, and industrial processes. Limiting the FSDS's actions to energy efficiency efforts related to these significant energy end uses and GHG generators is insufficient - decarbonization of these fuels and/or electrification/fuel-switching is also necessary.

Recommendation

- Address notable omissions in each of targets, milestones, starting point, priorities, and actions related to decarbonization and fuel-switching of carbon-intensive non-electric energy sources and end-uses.
- Measure, report and intervene on energy use from all sources and prioritize decarbonization and electrification actions of energy end uses from GHG-intensive sources.

D. Making a Commitment to Requiring, Educating, and Supporting Building Energy Labelling and Large Building Energy Benchmarking

Observation

Throughout the Clean Energy goal and other sections of the FSDS reference is made to the commitments and actions taken by Government to require energy labeling of appliances and vehicles and to educate the public as to the importance and means by which to use this information for consumer buying

decisions. Voluntary building energy labelling and benchmarking programs have proven the feasibility of these programs and the means by which to deliver them effectively; however voluntary programs have also seen insufficient uptake and skewed results based on voluntary participation which make the data an inadequate representative sample for analysis and policy and program design. Additionally, in recent months, the Government's license to use the US EPA's Energy Star Portfolio Manager (ESPM) software for the collection and reporting of large building energy use and benchmarking was suspended due to budget and staff cuts to the EPA which precluded them from supporting this online resource tool. The ESPM tool is back online now, but this sustained downtime event illustrated the precariousness of Canada's access to this important building energy data and benchmarking tool.

Recommendation

Include the development of mandatory building energy labeling and large building energy benchmarking regulations in the milestones and priority actions to be advanced by Government between 2019-2022. Specific to benchmarking, a Canadian response to the precarious access to the U.S. EPA's EnergyStar Portfolio Manager tool is needed and warranted for inclusion in the FSDS.

E. Other Technical Comments

- In Short-Term Milestones - Related to net-zero energy ready code requirements, suggest that Government look not only at the BC Energy Step Code, but at the collaborative, multisector process led by the Province of BC and BC Hydro which resulted in the establishment of a well-supported new building code. Similarly, the accompanying capacity-building for trades and design professionals, local government building officials and insurance and homeowners protection office, among others, has been instrumental to getting people ready for the adoption of these code changes and ensuring a smooth transition. This capacity building includes communications materials, online and in-class, trade-specific training, tools and resources.
- In Key Priorities - Add reference to the priority actions resulting from the recommendations contained in the final report of the Task Force on Just Transition for Canadian Coal Power Workers and Communities (Dec 2018)
- In Contributing Actions – Suggest making reference to LC3 initiative (funded in Budget 2019) in the Promoting Collaboration action item
- In Taking Action section for general public, include
    - Passive house, CaGBC's Zero Carbon Building Standard among other building rating systems delivering high energy performance homes like R-2000 and EnergyStar.
    - Switching from heating oil and natural gas heating equipment to a low carbon, renewable energy source like heat pumps.

Recommendations Pertaining to Modern and Resilient Infrastructure

A. Social Inclusion Goal Clarification

Observation:

The goal statement for this section is "Modern, sustainable and resilient infrastructure supports clean economic growth and social inclusion". What is specifically meant by social inclusion and how it is to be achieved is not explicitly stated in the draft FSDS. Presumably social inclusion refers to the provision of social housing though generally this would require use of the term public buildings and infrastructure, not solely infrastructure. Social inclusion could be referring to affordable, accessible and ubiquitous

public transit, bicycle network and sidewalk infrastructure which allow people without vehicle ownership or driver's licenses to move throughout the city. Social inclusion in infrastructure could also relate to its accessibility for people with reduced mobility or disabilities. This would also be relevant to this section and a welcome addition to priority actions. Ultimately, the intention of the goal statement related to social inclusion is not entirely clear because it is neither defined, nor elaborated upon in this goal chapter.

Recommendation

- Define and elaborate on social inclusion aspect of the goal statement in the introduction and starting point.
- Identify targets, milestones, key priorities, contributing actions and indicators to advance and measure progress on social inclusion related to infrastructure.

B. Improving the Climate Lens Assessment's Impact on Decisions Regarding Both Infrastructure Design and Investment

Observation

The FSDS state that "the climate lens encourages improved choices by project planners consistent with shared objectives under the Pan-Canadian Framework." Climate lens assessments are required to be completed for a) projects greater than $10M seeking federal funding through the Investing in Canada Infrastructure Program, b) all projects under the Disaster Mitigation and Adaptation Fund, and c) select finalists of the Smart Cities Challenge. The Climate Lens Assessment requires either quantification of GHG footprints and savings, or analysis of risk and vulnerability to climate change impacts. These assessments are a great step towards more informed decision-making and more low carbon, long-lived buildings and infrastructure. This new requirement, in order to perform well and early in the design process (when it has greater likelihood of impacting decision-making) requires the time of specialized resources and would benefit from more tools and support to develop in a consistent, comparable and efficient manner.

Recommendation

- Include as a key priority in the FSDS amendments to support use of the Climate Lens Assessment to:
    - Support municipal governments in completing the Climate Lens assessment for the largest infrastructure projects seeking federal funding.

C. Elaborate on Building Energy Labelling and Disclosure and Building Energy Benchmarking

Observation

The contribution action "Support low-carbon, resilient infrastructure" includes a Pan-Canadian Framework implementation action for making buildings more energy efficient. In this action it is mentioned that, working with provinces and territories "labelling/disclosure as early as 2019 through Build Smart: Canada's Building Strategy" will be developed. There is no other mention of what 'labelling/disclosure' regulation developed with provinces might entail.

This action is not mentioned in the Clean Energy section where other energy efficiency actions are discussed. All other reference to labeling in this document is restricted to energy labelling requirements for appliances and vehicles. There is no reference in this section or any other of the FSDS to the related

topic and regulation for large building energy benchmarking and the now defunct EnergyStar Portfolio Manager site and what has become/will become of the data previously input and stored in this licensed product for Canada from the US Environmental Protection Agency.

Recommendation

- The inclusion of buildings in this goal chapter may necessitate revision of the title to be inclusive of public buildings and infrastructure
- Elaborate on the action to develop building energy labeling and disclosure policy as this has long been a top priority of local governments for federal and/or provincial government action.
- Include the development of mandatory building energy labeling and disclosure regulation and program as a key priority rather than a contributing action. The program would support the collection, analysis and reporting of this energy labeling information.
- Include the development of mandatory large building energy benchmarking regulations and program for Part 3 buildings over 50,000ft2 as a priority action in the FSDS to complement the mandatory building energy labelling and disclosure aimed at smaller buildings (Part 9 buildings). The program would support the collection, analysis, and reporting of this large building energy benchmarking information.
- Specific to the large building energy benchmarking program, a Canadian response and alternative to the now defunct, EnergyStar Portfolio Manager is needed and warranted for inclusion as a key priority in the 2019 – 2022 FSDS.

D. Clarification on scope of goal area required

A number of terms used in this section require clarification:

- In short-term milestones, reference is made to wood-based buildings and infrastructure projects and “encouraging the increased use of wood products in non-traditional building construction”. It is unclear what is meant by ‘non-traditional building construction’; perhaps this is referring to building code changes permitting tall wood buildings, it’s unclear what wood-based infrastructure would be referred to here other than streetlight posts.
- Are buildings included in this goal area? The inclusion of buildings in this goal chapter may necessitate revision of the title to be inclusive of buildings and infrastructure.
- It is not clear as to whether this section would include both public and private infrastructure.

C. Examples of Partners Taking Action from Select CUSP Member Cities

CUSP's FSDS subcommittee members also offer the following examples for Partners in Action section of the various goal areas.

Please contact allison@cuspnetwork.ca if you'd like to receive more detail about any of these projects, or request images or staff/elected official statements. We are also able to canvas our full membership of 16 cities for additional projects if beneficial for the FSDS or its interactive website.

Examples provided by City and listed alphabetically.

City of Edmonton – Refer to individual submission from the City of Edmonton

Regional Municipality of Halifax

The Halifax Solar City Program offers complete financing to install a solar energy system to eligible property owners, including residential, not for profits, places of worship, cooperatives and charities. The Halifax Regional Municipality has financed more than 5 million dollars in solar energy systems in less than three years, spurring the uptake of renewable energy and supporting the burgeoning solar industry in Nova Scotia. www.halifax.ca/solarcity

The Halifax Green Network Plan defines an interconnected open space system, highlights ecosystem functions and benefits, and outlines strategies to manage open space. The plan provides land management and community design direction to promote the long-term sustainability of the region. The plan focuses on maintaining ecological and culturally important land and aquatic systems, promoting the sustainable use of natural resources and economically important open spaces, and identifying and planning land suited for parks and corridors. https://www.halifax.ca/about-halifax/regional-community-planning/community-plans/halifax-green-network-plan

The Halifax Urban Forest Master Plan aims to ensure a sustainable future for our urban forest. The plan provides a detailed overview of the environmental and economic benefits of HRM's urban forest, and articulates a management framework that includes an inventory of urban forest balues, objectives, indicators and canopy targets linked to specific management and monitoring efforts. https://www.halifax.ca/sites/default/files/documents/transportation/streets-sidewalks/HALREG%201246%20UrbanForestReport_HighRes_SINGLEPAGE_Mon20_Combined.pdf

The Integrated Mobility Plan provides a vision for moving around the Halifax region and helps direct future investment in transportation demand management, transit, active transportation and the roadway network to improve the links between residents and their communities. https://www.halifax.ca/sites/default/files/documents/about-the-city/regional-community-planning/IMP_report_171220-WEB.pdf

Ville de Montreal

Entente de partenariat Ville de Montréal — Ouranos
Objectif — Mesures relatives aux changements climatiques

Une entente de partenariat entre la Ville de Montréal et le consortium Ouranos a été conclue en juin 2017. Celle-ci formalise et consolide une alliance qui se veut plus importante que jamais. La Ville a un rôle majeur à jouer afin de gérer les impacts associés aux changements climatiques sur son territoire. Elle doit se préparer en préservant ses infrastructures ou en assurant son fonctionnement afin d'offrir

des services et un environnement de qualité et sécuritaire pour tous les citoyens. C'est dans ce contexte et parce que l'ampleur de la tâche est grande que la Ville de Montréal s'est associée au consortium Ouranos. Ce partenariat privilégié se veut :

- un chantier de réflexions et d'actions à l'échelle de l'agglomération montréalaise
- un chantier interdisciplinaire/intersectoriel qui repose sur la collaboration et l'ouverture aux visions de plusieurs disciplines
- un appui à des projets qui visent à intégrer l'adaptation aux changements climatiques dans la planification, la conception et l'aménagement, en complément à d'autres activités ou programmes en cours à la Ville.

Après une première année de collaboration, plusieurs projets concrets sont en cours, notamment le Labo Climat Montréal et le développement d'un outil d'analyse coûts-bénéfices pour les projets de requalification de friches industrielles.

Approvisionnement responsable

Objectif — Écologisation du gouvernement

La Politique d'approvisionnement de la Ville de Montréal est intimement liée à une volonté de réaliser des achats qui soient respectueux de l'environnement, qui contribuent de manière positive à l'économie locale et qui soutiennent des entreprises ayant un impact social significatif. Sa révision, finalisée en 2018, a permis d'officialiser ces principes clés afin d'orienter les futurs achats effectués par ses unités d'affaires. Toute acquisition doit désormais intégrer les critères d'approvisionnement responsable. Autrement dit, l'ensemble du processus décisionnel menant à un achat doit tenir compte des enjeux sociaux, économiques et environnementaux.

En raison du volume élevé de ses achats, la Ville de Montréal dispose d'un puissant levier pour soutenir l'achat responsable. En mettant en place un cadre qui favorise l'approvisionnement durable, elle a su tirer parti de sa force économique pour lutter contre les changements climatiques et assurer l'accès des entreprises de l'économie sociale à son marché. Elle contribue ainsi à faire de Montréal une des villes canadiennes les plus actives en matière d'approvisionnement responsable.

Parcours de développement durable

Objectif — Croissance propre

Le Parcours Développement Durable Montréal offre à une cohorte de vingt PME une démarche d'accompagnement unique d'un an afin de leur permettre de trouver des solutions innovantes et d'implanter des modèles d'affaires durables et inspirants, apportant ainsi de la valeur à l'ensemble de la société.

Le Parcours Développement Durable permet de vulgariser les concepts, tout en donnant accès à une expertise pointue sur différents sujets. Les ateliers en entreprises amènent les PME à formuler leur vision d'un futur souhaité, puis à revenir à leur réalité actuelle, et à commencer pas à pas, selon le principe du « Think big, act small ». Le Parcours accompagne donc les PME montréalaises dans l'action pour un développement durable, et contribue à créer une communauté d'affaires montréalaise engagée, partageant une même vision transversale du DD.

Plan de gestion du coyote

Objectif – Populations d'espèces sauvages en santé

Le plan de gestion du coyote de la Ville de Montréal, dévoilé en décembre 2018 par l'administration municipale, vise à favoriser la coexistence avec les coyotes vivant en milieu urbain en misant sur l'éducation du public, sur des méthodes de modification comportementale des coyotes (afin de réinstaurer leur peur naturelle envers les humains) et sur des interventions ciblant les animaux agressifs pour assurer la sécurité de la population.

Le projet, basé sur des pratiques exemplaires issues de l'expérience de nombreuses villes nord-américaines, vise une coexistence harmonieuse avec le coyote, un représentant peu banal de la faune urbaine. Cet animal est bien connu pour jouer un rôle écologique important, notamment par son influence sur certaines populations de proie (comme la bernache du Canada) ou de compétiteurs. En favorisant la coexistence avec cette espèce, le projet aura des impacts environnementaux significatifs sur les écosystèmes urbains. La régulation naturelle de proies entraine aussi des conséquences économiques positives pour la ville, en réduisant les coûts liés à la surabondance de celles-ci en ce qui a trait aux écosystèmes et aux infrastructures.

Gestion écologique des eaux pluviales

Objectif – Infrastructure moderne et résiliente

Un nouvel équipement à vocation environnementale s'intègre à la nouvelle avenue Papineau réaménagée et réhumanisée pour devenir un prototype d'avant-garde en réponse aux défis des prochaines conditions climatiques anticipées mondialement. Ces ouvrages de gestion des eaux pluviales (OGEP) visent principalement à diminuer non seulement les débits de pointe, mais aussi les volumes rejetés et agissent en prévention de surcharges du réseau d'égouts public existant et l'élimination de surverses fréquentes au milieu réceptif. Ce projet écologique de requalification urbaine a été complété au printemps 2018 par la plantation de 300 arbres, 1500 arbustes et 35 000 végétaux, et devient à ce jour une réalité incontournable en matière de gestion durable des eaux pluviales et de verdissement massif en milieu artériel.

L'innovation, liée à sa dimension durable, catapulte ce projet au cœur des enjeux de la gestion des infrastructures modernes; proposer des ouvrages expérimentaux, de gestion des eaux pluviales comme remède durable aux constructions d'infrastructures traditionnelles, coûteuses, peu efficaces, permettant d'endiguer des problèmes de débordements fréquents, particulièrement causés par l'insuffisance hydraulique d'un secteur. Le cas présenté dans ce document est celui de l'ensemble collecteur d'égouts/bassin de rétention Curotte-Papineau.

Corridor de biodiversité de Saint-Laurent

Objectif – Terres et forêts gérées de façon durable

Afin de protéger la diversité biologique urbaine, l'arrondissement de Saint-Laurent a commencé en 2015 le projet « Corridor de biodiversité de Saint-Laurent », qui vise à connecter les milieux naturels aux autres espaces verts existant sur son territoire. Ce projet a pour but de favoriser le déplacement de la faune et la dispersion de la flore, d'accroître leur diversité et d'augmenter la résilience du territoire face aux changements climatiques. Il vise également à encourager les déplacements des citoyens qui auront ainsi accès à des espaces combinant les bienfaits d'une nature diversifiée aux attraits patrimoniaux, historiques, culturels et artistiques de l'arrondissement. À terme, le corridor de biodiversité couvrira un vaste territoire d'environ 450 hectares, passant par des secteurs industriels, commerciaux et résidentiels.

City of Toronto

Modern and resilient infrastructure:

- Toronto Green Standard
    - The City of Toronto has updated the Toronto Green Standard to include stepped performance targets to approach zero emissions for all new buildings by 2030. This update represents a critical step toward achieving City Council's low-carbon goals established in TransformTO, Toronto's Climate Action Strategy. The Toronto Green Standard sets out the requirements for new development in Toronto to do its part to improve air and water quality, reduce energy use and waste, and enhance tree cover and wildlife habitat. Introduced in 2010, the made-in-Toronto green development standards program was the first of its kind in North America to combine mandatory with incentivized, voluntary targets.
    - To date, more than 1,300 planning projects have been subject to these standards, resulting in the removal of more than 115,205 metric tonnes of carbon dioxide each year, equivalent to taking almost 30,000 cars off the road. Twenty projects certified as Tier 2 high performance buildings (the City's highest level of sustainable design) are profiled on the City's website.
    - The updated Toronto Green Standard came into effect May 1, 2018. The new standard supports Toronto's Zero Emissions Buildings Framework developed in partnership with The Atmospheric Fund and guided by local building industry stakeholders. The framework provides Toronto's approach to reducing energy consumption and greenhouse gas emissions from buildings, while ensuring their construction remains safe and durable. The framework outlines Toronto's approach to long term energy and greenhouse gas emissions reductions from buildings. View the Toronto's Zero Emissions Buildings Framework at toronto.ca/wp-content/uploads/2017/11/9875-Zero-Emissions-Buildings-Framework-Report.pdf.
    - The City of Toronto is also targeting zero emissions for its own new facilities designed and built by 2026, starting with the Mount Dennis childcare centre, which will be designed to meet zero energy and emissions standards.
- Green Streets Guidelines
    - Toronto’s Green Streets Technical Guidelines provide guidance, standards and selection tools for the planning, design, integration and maintenance of a range of green infrastructure options appropriate for the City’s street types and conditions. The Guidelines are meant to be a tool for City staff, developers, and consultants with the key objectives of providing an understanding of sustainable stormwater planning and practices; informing the selection of appropriate green infrastructure options to be integrated as part of street retrofit/rehabilitation or new/reconstruction projects; and, ensuring that green street designs are attractive, functional and appropriate to their urban context.
- Residential Energy Retrofit Program
    - Since its launch in 2014, the Residential Energy Retrofit Program has provided financing to support property owners in undertaking energy efficiency and water conservation improvements. The Program operates as two streams: the Home Energy Loan Program (HELP) for eligible homes; and, the High-rise Retrofit Improvement Support Program (Hi-RIS) for multi-unit residential buildings. The Residential Energy Retrofit Program is made possible through an amendment to the provincial regulation regarding local improvement charges. A local improvement charge is a municipal financing tool traditionally used to help cover the costs of local infrastructure improvements (e.g. street lights, sidewalks for a particular street). The amendment allows municipalities to advance funding to consenting private property owners to cover the cost of undertaking building improvements that provide energy efficiency and water conservation benefits.
    - HELP and Hi-RIS were designed to address key barriers to energy efficiency retrofits such as high, upfront capital costs and, to provide 'one-window' access to support services including

connections with utilities. This service delivery model has been successful in creating a pathway for property owners to complete energy efficiency retrofits.

Clean Energy

- City of Toronto and Enwave partner to develop low-carbon thermal energy networks
    - The City of Toronto and private energy provider Enwave Energy Corporation (Enwave) have established a partnership to work on projects that will advance the objectives of the City's TransformTO Climate Action Strategy. Through the partnership, the City and Enwave will co-develop low-carbon thermal energy networks in Toronto. Low-carbon thermal energy networks use energy from renewable sources, such as heat recovery, geo-exchange and solar thermal, to heat and cool multiple buildings in an area. The City's TransformTO Climate Action Strategy identifies low-carbon thermal energy networks as a key way to reduce greenhouse gas emissions from buildings. The strategy targets an 80 per cent reduction in local greenhouse gas emissions by 2050, based on 1990 levels. Homes and buildings generate about half of the greenhouse gas emissions in Toronto today.
    - Enwave Energy Corporation, together with its affiliates, is a fully integrated, sustainable energy services provider owned by Brookfield Infrastructure and its institutional partners. With assets in Toronto, Chicago, New Orleans, Houston, Las Vegas, Los Angeles, Seattle, Portland, Windsor, London and Charlottetown, Enwave operates intelligent thermal energy systems that generate, store, distribute and share energy in its different forms across all of its communities. For more information visit enwave.com.
- City of Toronto to create renewable natural gas from Green Bin organic waste
    - The City of Toronto, in partnership with Enbridge Gas Distribution Inc., will begin installing new equipment at the Dufferin Solid Waste Management Facility. The new equipment, known as a Bio-methane Upgrading System, will allow the City and Enbridge to turn the raw biogas – produced from processing Green Bin organics – into renewable natural gas (RNG). This project is one of the first of its kind in Canada and North America and will allow the City to reduce fuel costs for its fleet of collection trucks and significantly reduce its carbon footprint. This biogas upgrading project is paving the way for future renewable natural gas projects within the City and throughout Canada and North America. Through multiple studies, the City also identified RNG production opportunities at two landfill sites and its other anaerobic digestion facility. Once all four RNG sites are up and running, estimates suggest that the City will be able to produce approximately 65 million cubic metres of RNG per year – the equivalent in greenhouse gas emission reductions of taking 35,000 cars off the road annually.

Effective Action on climate change:

- Green Bond
    - In summer 2018, the City of Toronto issued an inaugural green bond offering of $300 million. Toronto is one of the first municipalities in Canada to establish a Green Debenture Program with net proceeds to finance capital projects that mitigate, and adapt to, the effects of climate change. This $300 million issue with a 30-year maturity and a coupon interest rate of 3.20 per cent, will mature on August 1, 2048. This represents the lowest borrowing cost the City of Toronto has been able to achieve for a 30-year term.

    Eligible projects are capital projects that meet the City's environmental objectives including:
    • mitigation and adaptation to the effects of climate change
    • abatement and avoidance of GHG emissions
    • resource recovery and a hierarchical approach to waste management, and
    • air, water and soil pollution prevention and control.

    More information about the City's Green Debenture Program is available at toronto.ca/city-government/budget-finances/city-finance/investor-relations.

City of Vancouver

Modern and Resilient Infrastructure

Zero Emissions Building Plan
In July 2016, Vancouver became the first major city in North America to set specific targets and actions to eliminate greenhouse gas emissions from new buildings by 2030, through the Zero Emissions Building Plan. The Plan takes a gradual approach reducing emissions from newly permitted buildings by 70% by 2020, 90% by 2025, and 100% by 2030. As of 2017, new buildings already produce 43% less carbon pollution than they did in 2007. The Plan focusses on improving energy efficiency first and foremost, and does not ban any particular type of energy. Focus is placed on improved insulation and air-tightness to reduce energy use, though standards like Passive House and the Zero Carbon Building Standard.

Green Building Policy for Rezonings
Every year 30 to 60 large new building projects in Vancouver go through a rezoning process. As part of negotiating a rezoning, the project must be built to a higher energy standard. In late 2016, Council approved an update to the Green Building Policy for Rezonings, the first step towards zero emission buildings by 2030. Building projects that fall under the updated Policy must cut carbon pollution by 50% or more, and meet new limits for heat loss and energy use. Builders and developers choose which type of heating system to stay under those limits, often using simple, locally developed approaches and technologies. The Policy doesn't ban anything. Even with natural gas water heaters and gas stoves, building projects can meet the new requirements. Most importantly, it won't cost any more to construct, maintain, or power such a building.

Vancouver Alignment with BC Step Code
The BC Energy Step Code is a voluntary provincial standard enacted in April 2017 that provides an incremental and consistent approach to achieving more energy-efficient buildings that go beyond the requirements of the base BC Building Code. It does so by establishing a series of measurable, performance-based energy-efficiency requirements for construction that builders can choose to build to, and communities may voluntarily choose to adopt in bylaws and policies. Cities have a framework to require better energy efficiency in new construction, from average efficiency increases all the way up to requiring zero emissions. Vancouver strongly influenced the BC Step Code through its own globally recognized green building policies, and has taken steps to align its building code with the Step Code to help create a larger market and economies of scale for green building technologies and components. In 2018, Council approved energy efficiency updates to the Vancouver Building By-law for large buildings that align with Step 2 of the BC Energy Step Code starting June 2019, and starting June 2021 will align with Step 3 and the City's current rezoning policy.

Vancouver's Zero Emissions Building Exchange (ZEBx)
Launched in 2018, Vancouver's Zero Emissions Building Exchange, or ZEBx, is a physical hub for local builders, designers, architects and developers to share learnings and access resources focused on zero emissions buildings. The City of Vancouver has set a clear, ambitious pathway to require most new buildings to be zero emissions by 2025 or sooner. To support that transition in the building sector, the City provided core funding for three years to launch ZEBx and support initial programming. ZEBx offers training, site tours, panel discussions, and online resources—all aimed at building a strong community of practice within the local building sector. The number of near-zero emissions building projects happening in Vancouver has rapidly increased in recent years and ZEBx is ensuring that the projects are highlighted and the lessons learned are shared across the industry. It's a successful model that could be used by other communities across the country to help their local building industry reach a zero emissions standard.

City Strategies around Green Buildings, Green Transportation, Zero Waste and Social Resilience

- Energy Retrofit Strategy for Existing Buildings (2014) is the City's approach to reducing energy use and carbon pollution in existing buildings. It leverages the Vancouver Building By-Law, new innovative approaches, and commitments from other levels of government. Strategies are tailored for specific building sectors that provide the most opportunity for reductions.
- Electric Vehicle Ecosystem Strategy (2016), under the Renewable City Strategy, aims to improve accessibility, affordability and economic opportunity related to electric vehicle uptake and operation in the community, in particular in the home, workplace, and public contexts.
- Transportation 2040 (2012) is a long-term strategic vision for the city that guides transportation and land use decisions, and public investments. It includes directions to enable and encourage creative uses of the street, and to create more public plazas and gathering spaces.
- Zero Waste 2040 (2018) is a long-term strategic vision for the city to achieve zero waste by 2040. It provides a framework to guide future decisions and investments relating to solid waste, with the aims to conserve scarce resources, limit climate change, extend the landfill's useful life, and create social and economic opportunities.
- Healthy City Strategy (2014) is a long-term, integrated plan for healthier people, healthier places, and a healthier planet. Resilient infrastructure includes social connectedness amongst the people that make up a community. Neighbourhoods and built environments where they interact are where the impacts of shocks and stresses are most acutely felt. It includes targets related to active living, access to nature, connectedness and safe, active and accessible ways of getting around the city.

Clean Energy

Renewable City Action Plan

In 2015, Vancouver committed through the Renewable City Strategy to derive 100% of the energy used in Vancouver from renewable sources before 2050, with a focus on buildings, transportation, and waste. The Renewable City Action Plan (adopted in 2017) is the implementation plan, containing core principles to shape current and future actions; interim targets that will guide progress towards the City's long term climate and renewable energy objectives; a monitoring, reporting and evaluation framework; and a schedule of the actions the City will undertake over the next ten years. Actions include improving energy efficiency and transitioning to renewable energy in new and existing buildings; using land-use and zoning policies to develop complete compact communities and complete streets that encourage active transportation and transit; promoting low-/zero-carbon vehicles; completing a comprehensive Zero Waste Strategy for Vancouver; and other cross-sectoral and operational actions.

Neighbourhood Energy Utility Expansion

The Southeast False Creek Neighbourhood Energy Utility uses waste thermal energy captured from sewage to provide space heating and hot water to buildings in Southeast False Creek. This recycled energy eliminates more than 60% of the greenhouse gas pollution associated with heating buildings. The utility is self-funded: it provides a return on investment to City taxpayers, while at the same time, provides affordable rates to customers. The utility began operations in 2010 and since then has rapidly expanded to serve over 5 million square feet of residential, commercial, and institutional space. In spring 2018, Council approved potential future expansion into parts of Mount Pleasant, the False Creek Flats, and Northeast False Creek. This could see the utility grow to more than 22 million square feet of buildings in the long term.

Effective Action on Climate Change

Climate Emergency Declaration
In spring 2019, Vancouver became the first city in Canada outside of Quebec to declare a climate emergency. Council recognizes that the breakdown of the stable climate and sea level under which human civilization has developed constitutes an emergency for the City of Vancouver, and has directed staff to respond with IPCC-aligned targets and accelerated actions to meet this challenge. Vancouver will also be exploring the creation of a Climate and Equity working group to provide guidance and support for the City's efforts to transition away from fossil fuels in ways that prioritize those most vulnerable to climate impacts and most in need of support in transitioning to renewable energy.

Climate Change Adaptation Strategy
Vancouver adopted the Climate Change Adaptation Strategy in 2012. At the time one of the first of its kind in Canada, the Strategy was the City's response to the challenge of preparing for a new climate normal. With over 50 actions already completed, the 2018 iteration of the strategy lays out a new set of priorities; actions in five core areas; plus enabling actions to help integrate an adaptation lens as standard practice into all City work. New focus areas include climate robust infrastructure and buildings, connected and prepared communities, coastal preparedness, and healthy and vigourous natural assets.

Green Bonds
In fall 2018, Vancouver issued an inaugural green bond offering of $85 million to fund environmentally sustainable initiatives and projects, while offering investors competitive returns. Under Vancouver's Green Bond Framework, net proceeds from green bonds will be used to finance Council-approved capital projects that support the City's commitment to positive environmental goals, social responsibility, and economic development across Vancouver's communities. Eligible capital projects include investments in renewable energy, energy efficiency, green buildings, clean transportation, pollution prevention and control, sustainable water and wastewater management, and environmentally sustainable management of living natural resources. Initial projects include a new Net Zero Energy fire hall that will be Passive House and LEED Gold (v4) certified; redevelopment of affordable housing stock with reduced energy use, GHG emissions, and water consumption; and expansion of Vancouver's low-carbon Neighbourhood Energy Utility in the False Creek area.

Climate-Related Financial Disclosure
In spring 2019, Vancouver became one of the first cities in North America to include disclosure on climate-related risk in its 2018 Statement of Financial Information, in alignment with recommendations from the Task Force for Climate-Related Financial Disclosure. This initial reporting describes climate-risk governance, impacts, management and measurement within City operations. Disclosure will provide transparency into the impacts of future climate risk, helping to drive process improvement within the City; respond to current and future reporting requirements for external funding opportunities; and help provide stability for business and investor confidence that Vancouver is both mitigating and preparing for the impacts of climate change.

A Selection of Multicity Projects from the Canadian Urban Sustainability Practitioners (CUSP)

CUSP's 2017-2020 Strategic Plan includes conducting Canadian-specific research and analyses as of one of its five goals. Specifically, the areas of common priority and value to members relates to targets and commitments; data measurement and reporting; financing and partnerships; and, equity and engagement of low and moderate-income households, indigenous communities and other underserved populations, with the goal of collectively developing to fill information gaps and/or gain efficiencies and productivity of municipal practitioners and partners.

CUSP's Multi-phased Priority Project – 2018 -2020 Equity in Energy Transformation

CUSP cities are leading the field among Canadian municipalities on the design of equitable climate and energy policies and programs, tools and resources, in particular as it relates to energy poverty. This lens, is critical to the delivery of accessible and inclusive policies and programs for households experiencing the highest energy burdens. Equitable policies and programs require intentionality from initial screening/selection and design through program structure and implementation. Specifically, climate and energy programs that fail to address equity and affordability issues in cities, are now considered to fall short of their mandate. Please see a few resources here related to CUSP's work on energy equity and energy poverty specifically.

- An Equitable Clean Energy Program Design Guidebook for Local Governments and Partners - CUSP's 2018 priority project developed with CUSP's managing director, staff from seven US Cities and the City of Toronto, a large community partner advisory committee, and the Cadmus Group. USDN's Innovation Fund supported this development of this Guidebook.
- An Equitable Clean Energy Transition – 8 min webinar presentation by Allison Ashcroft, managing director of the Canadian Urban Sustainability Practitioners (CUSP)
- An Introduction to Energy Poverty in Canada – 17 min webinar presentation by Maryam Rezaei, PhD and project team and advisory committee member on CUSP's Local Energy Access Program (LEAP) funded through MCIP's T2050 program. LEAP Project described below.

Local Energy Access Programs (LEAP), a 2019-2020 priority project of CUSP

Project Enabler/Precursor: The LEAP project will support cities in operationalizing the recently completed Guidebook on Equitable Clean Energy Program Design for Local Governments and Partners.

Project Description: In the short-term, this project will support the design and implementation of six equitable and scalable clean energy pilot programs in CUSP cities. By increasing renewable energy deployment in cities, the LEAP project will achieve measurable GHG reductions for communities alongside a range of impactful co-benefits that will scale over the medium and long-term.
Innovation: This project supports cities and community partners through the generation of new equity and energy poverty information, the development of data-driven engagement tools, and the delivery of human-centred skills training. This project readies municipalities by helping them create the enabling conditions necessary to operationalize the emergent (and intimidating) best practices for economic and racial equity contained within this Guidebook.

Executed within a cohort environment, peer knowledge exchange is supplemented by expert coaching to build confidence and capacity for utilizing the Guidebook and integrating its core principles. With guided support, these equity-driven approaches to climate and energy will surpass aspirations and best practice idealism to instead normalize these concepts as fundamental prerequisites for clean energy programs. This project intentionally introduces municipalities to these concepts through a focus on programs as they are more immediately actionable,

impactful and measurable, and best primed for community collaboration with service providers to underserved communities. By creating these enabling conditions for better and more equitable and inclusive programs, this project will, by extension, impact municipal approaches to climate action planning and climate and energy policy whereby the disproportionate burdens and barriers experienced by indigenous people, racialized communities, new Canadians and households of low and moderate income are acknowledged and addressed with greater intentionality.

Creating the enabling conditions for the successful deployment of this guidebook is innovative in that it focuses on achieving targets for GHG reductions, energy efficiency, energy cost savings alongside other co-benefits to dire and complex community challenges. By targeting and prioritizing households experiencing energy poverty and other energy justice issues in the engagement, design, structure, and delivery of clean energy programs, municipalities, partners and funders can be confident that equitable access to the benefits of these programs is assured, and the impact of these programs are being realized by those most disproportionately burdened. Beyond municipal climate and energy mandates, any allocation of public resources in cities need to take every opportunity to close in on prevailing income and wealth disparities across Canada. Moreover, the ambitious, but necessary commitments from all levels of government to 100% renewable energy and 80x50 GHG reductions necessitate the inclusion of everyone if we are to achieve a just clean energy transition and hold and adapt cities to a 1.5°C increase in global temperatures.

About CUSP

Launched in the spring of 2015, CUSP connects sustainability practitioners from Canada's **large** and **leading** cities on sustainability and provides capacity to support their collective efforts and expand their reach and impact.

CUSP's member practitioners share a climate and sustainability imperative, and through CUSP come together to **connect, cooperate**, and **shape** their communities' climate and sustainability futures. By cooperating on Canadian-specific issues, Canada's large and leading cities are able to leverage opportunity with partners, attract funders, and collectively inform FCM efforts to shape federal policy and programs and operationalize those efforts locally.

CUSP Members
(*based on Census Metro Area*):

- Represent a population of **18 million**, or one half of the country's population (2016 Census).
- Generate **$1 trillion**, or 55% of the country's GDP (2013 Statistics Canada)

With **sixteen**[2] member municipalities, and a number more Cities connected through our allied networks, CUSP is a nationwide peer-to-peer network focused on building sustainable, resilient, and equitable communities.

CUSP is the official Canadian Partner of the Urban Sustainability Directors Network (USDN). Formed in 2009, USDN is a peer-to-peer network of 1,000+ local government professionals from over 200 cities across the United States and Canada dedicated to creating a healthier environment, economic prosperity, and increased social equity.

CUSP Understands the Value of Networks and Partnerships for Collaboration on Complex Issues
There are a number of organizations who contribute to advancing sustainability in Canadian communities; and, local governments, non-profits, foundations and other philanthropic organizations are all under increasing pressure to do more and do better with fewer resources. As sustainability programming in cities pivots from planning to implementation, effective and committed partnerships are critical to pool the requisite skills and resources, and produce the necessary results, within the imperative timelines.

CUSP forges long-term and mutually beneficial relationships with partners and affiliate networks who share a common vision, and recognize the unique scale that cities offer for achieving the greatest impact on sustainability and quality of life objectives in Canadian communities.

- **Nationally**: CUSP's strategic plan identified three priority partners for advancing its work; these include the Urban Sustainability Directors Network, Federation of Canadian Municipalities, and Community Foundations of Canada. Other key partners include The Pembina Institute, ICLEI, The Atmospheric Fund, Quest, and Renewable Cities at SFU's Centre for Dialogue.
- **Regionally**: CUSP strategizes and knowledge shares between allied networks, such as the Clean Air Partnership in Ontario (26 member cities primarily in the GTHA), and BC Hydro Sustainable Communities (a network of community energy managers from 15 urban centres in BC).
- **Globally**: All the Canadian members of global municipal sustainability networks are CUSP members. These global networks include the Carbon Neutral Cities Alliance (CNCA), C40 Cities, and Rockefeller Foundation's 100 Resilient Cities (100RC).

[2] As of March 31, 2019, CUSP's members include the local governments of: In BC (Victoria, Saanich, Vancouver, North Vancouver, Surrey, Richmond, New Westminster), in the Prairies (Edmonton, Calgary, Saskatoon, Winnipeg), in Ontario (Toronto, Mississauga, Ottawa), in Quebec (Montreal), and in Atlantic Canada (Halifax)

CUSP Strategic Plan Highlights (2017 – 2020)

VISION

CUSP connects member cities, affiliate networks, and key partners to overcome shared challenges and advance individual, yet common goals. By cooperating on Canadian-specific issues, Canada's large and leading cities are able to leverage opportunity with partners, attract funders, and collectively inform FCM efforts to shape federal policy and programs and operationalize those efforts locally.

GOALS

As a result of the work of the CUSP Network,

1. Relationships among members and with key Canadian partner organizations are stronger and higher value to sustainability practitioners and their representative councils.
2. Federal policy and programs are informed by the experiences and perspectives of the Network's members and partners and address the sustainability and climate change needs and objectives of member communities.
3. Canadian-specific research and analyses related to targets and commitments; data measurement and reporting; financing and partnerships; and, equity and engagement of low and moderate-income households, indigenous communities and other underserved populations, have been developed to fill information gaps and/or gain efficiencies and productivity of municipal practitioners and partners.
4. Funding for sustainability and climate action in Canadian communities is greater, more diverse and more stable.
5. The network effectiveness of USDN is enhanced for CUSP members; and, in turn, CUSP members are key contributors to the USDN and its broader membership.

GUIDING PRINCIPLES

The Network, its staff, and members direct efforts in a way that

a) adds **value** for member cities;
b) **cooperates**, rather than competes, with USDN, FCM, existing Canadian networks, and partner organizations; and
c) **optimizes** resources of staff, members, and partners, by seeking opportunities to align with others, to augment and enhance the work of others, to fill gaps not served by others, and to avoid duplication.

CORE FUNDING

The development and ongoing implementation of CUSP's strategic plan priorities have been made possible as a result of generous and stable multiyear funding from a group of private Canadian foundations including the J.W. McConnell Family Foundation and Ivey Foundation. These philanthropic partners recognize the importance (and potential) of urban cities to advance climate and sustainability objectives. They also believe, as the members of CUSP do, in the exponential impact achievable when cities work together and work with others.

CUSP's Project Pipeline 2019/2020

The project descriptions contained below are heavily abbreviated and represent multi-city projects in various stages of development and implementation, but have core partners and participating cities in place. Other than the EV project shown below, all projects are funded for their primary phase scopes of work.

We share information about the projects in our pipeline in the spirit of collaboration should these projects align with priorities and strategies of Federal Government departments such as ECCC and NRCan and pose an opportunity for greater partnership with municipalities.

Please contact CUSP's managing director, Allison Ashcroft, to receive more detailed information about these projects. Email: allison@cuspnetwork.ca

1. Electric Vehicle (EV) Charging Infrastructure and Policy Guidance

Project Enabler/Precursor: In December 2017, the City of Richmond became the first jurisdiction in North America to require that all residential parking in new developments feature an energized electrical outlet for the purpose of EV charging. A significant number of cities in British Columbia, through BC Hydro's Community Energy Manager network, have since adopted the same or very similar requirements. The City of Richmond has published two resources to help other local governments adopt EV charging infrastructure requirements for new developments, and to support EV charging infrastructure deployment more broadly. These two resources are:

- Residential Electric Vehicle Charging - A Guide for Local Governments
- Electric Vehicle Charging Infrastructure in Shared Parking Areas - Implementation Resources and Policy Requirements

Project Description: This project will support a cohort of CUSP cities from across Canada to develop policies and requirements to deploy EV charging infrastructure in their communities. CUSP will operationalize Richmond's guidance documents and other resources through the development of supplemental legal/regulatory analyses, financial tools and resources, as well as, the delivery of training modules and one-on-one coaching. Web training will include other important aspects of EV strategies beyond charging infrastructure.
By taking a cohort approach, we will:

a. accelerate cities' adoption of EV policies while using fewer resources;
b. provide greater consistency in regulation to the market; and
c. provide an opportunity for cities to pursue strategic procurement (joint procurement) and to attract the impact investment community.

CUSP Role: CUSP will create an EV Community of Practice among its member cities and will project manage this project in partnership with Brendan McEwen, formerly of the City of Richmond.

2. Community Climate Leaders Canada

Project Enabler/Precursor: The Community Climate Leaders Program was developed for the City of Boston and has been employed successfully for its Greenovate Boston project and other initiatives. This program establishes a partnership between municipal leaders who have climate change expertise and information, with community members who know their neighbourhoods and are trusted influencers (churches/schools/large employers, etc.). Once trained and provided with tools and support, these community leaders engage their social networks about climate risks and help community members to take action to reduce their carbon footprints. Greenovate Boston Climate Leaders Program

Project Description: Through this project, a framework and set of tools and resources will be developed for Canadian cities who will be supported through the design and delivery of training to Community Climate Leaders.

CUSP Role: CUSP along with a select group of member cities will work with Cara Pike of Social Capital Strategies to carry out this multicity project in 2019.

3. Low Carbon Cities Canada (LC3)

Project Enabler/Precursor: The LC3 project will leverage the success of The Atmospheric Fund (TAF) model in Toronto by replicating and scaling up this model in six other large urban regions across Canada, in addition, to enhancing the existing TAF in Toronto. NRCan funded TAF to hold dialogues across Canada to explore the feasibility and interest of replicating TAF. These dialogues culminated in a two-day intensive workshop in November 2017, where CUSP and TAF gathered stakeholders from these cities for a two day meeting to explore and develop the proposal contained at www.lc3.ca.

Project Description: With federal funding confirmed of $183M (2019 Federal Budget) and local sources of capital to be leveraged over 10 years, the LC3 project will establish and endow with working capital seven LC3 Centres in Canada's largest urban areas along with a shared services network to support knowledge exchange between the centres. LC3 Centres will accelerate Canada's transition to the low-carbon economy and unlock social and environmental benefits.

CUSP Role: All seven LC3 centres are located in CUSP member cities. The Centres will directly service 12 of 16 CUSP members (5 in Vancouver lower mainland and 2 in GTHA). CUSP's core members in these seven cities are party to the development of this Pan-Canadian proposal along with CUSP's managing director. As the federal funding to LC3 was just announced, the leadership team to be selected to support GMF with this pan-canadian multistakeholder 10 year initiative is still in development.

4. Municipal and Market Readiness for Energiesprong Deep Resiliency Multi-Family Retrofits

Project Enabler/Precursor: Working with industry, regulators, financiers, and housing societies, the Dutch Energiespring program has catalyzed innovation in the supply chain by piloting new deep retrofit solutions, aggregating demand, and clearing a path to a sustainable business case. Long-term costs savings are being achieved by integrating fire, seismic, and climate upgrades alongside capital replacements into 'deep resiliency' retrofit packages. Investments in social housing are catalyzing this transformation by developing new solutions which can then be scaled across the private sector.
A Pembina project, with capital funding secured from BC Housing, will undertake deep resiliency retrofits in 8 non-market housing buildings. Similar retrofit projects are being planned across the country.

Project Description: This project proposes to run in parallel to these capital projects to assess and improve the readiness of municipalities and the market to take advantage of these catalyst projects. This project will support the adoption and adaptation in Canada of the Energiesprong market development approach by working with Canadian cities to understand the various roles required of local government, from being a supportive regulator of buildings and land use to being a direct catalyst for the market mainstreaming of new deep resiliency retrofits.

CUSP Role: CUSP is working in partnership with the Pembina Institute who leads this project with funding from NRCan and city contributions.

5. Climate Risk Disclosure for Cities

Project Enabler/Precursor: The TCFD (Taskforce for Climate-related Financial Disclosures) released its final recommendations in June 2017 for voluntary and consistent climate-related financial risk disclosures.

Project Description: Through this project, guidance will be developed for a process framework that can be followed by cities to evaluate the usefulness of the recommendations of the TCFD. This guidance can be used by cities to evaluate whether to make enhanced climate-related disclosures in their financial statements, as well as determine what climate-related information could be valuable for decision-making.

CUSP Role: CUSP's managing director and core members from the City of Vancouver, Montreal and Toronto are members to this project working group led by CPA Canada with funding from NRCan.