

RE: Clean Air Council Member Feedback to the Province of Ontario's Environment Plan

About the Clean Air Council

The Clean Air Council (CAC) is a network of 28 municipalities and health units from across the Greater Toronto, Hamilton and Southwestern Ontario Area¹ who collaboratively work on the development and implementation of clean air and climate change mitigation and adaptation actions. More information on the Clean Air Council is available [here](#). CAC representatives are the municipal change agents within leading climate action municipalities and have been working collaboratively across the region for almost 20 years to support and enable progress on clean air and climate change actions. This submission presents the consensus of feedback from the Clean Air Council membership to the Province in response to the release of Ontario's Environment Plan and was facilitated and is endorsed by the Clean Air Partnership, a charitable environmental organization that serves as the secretariat for the Clean Air Councilⁱ.

The Need for Ontario Climate Action & Leadership

As was mentioned in Ontario's Environment Plan, Ontario has been a leader in climate action through the delivery of programs and policies such as the phase out of coal fired electricity generation advancing climate action (as well as associated public health benefits due to Ontarians' reduced air pollutant exposure). The CAC wants to ensure Ontario remains a leader in advancing towards the low carbon future Ontarians desire. Slow action to address climate change will most certainly have higher costs in comparison to investments implemented today. Unless we act fast, we will have to pay an ever-increasing price in economic damages that are far in excess of the costs associated with GHG reduction. See Appendix A for more information on the financial and other risks Ontario faces as a result of climate change impacts.

¹ CAC Municipal and Public Health Unit members include: Ajax, Aurora, Brampton, Burlington, Caledon, Clarington, Durham Region, Guelph, Halton Region, Halton Hills, Hamilton, King, London, Markham, Mississauga, Newmarket, Oakville, Oshawa, Peel Region, Pickering, Richmond Hill, Simcoe-Muskoka District Health Unit, Toronto, Vaughan, Region of Waterloo, Whitby, Windsor, York Region. Municipal staff representatives on the Clean Air Council (CAC) were consulted in the preparation of this submission to reflect the feedback of member municipalities but direct endorsement of this submission by municipal councils was not sought due to the short time frame for this consultation which does not allow for adequate time to seek council endorsement and also doesn't allow for municipalities to submit their own submissions.

Climate Targets

The CAC recommends that the Province of Ontario reconsider the greenhouse gas (ghg) reduction targets committed to within the Environment Plan. The reduced 2030 target and the lack of a 2050 target are a significant reduction in Ontario's climate action and leadership.

Modifying the 37% reduction target based on a 1990 baseline to a 30% reduction based on 2005 baseline is calculated to produce 30 megatonnes more pollution in 2030. 30 megatonnes is about the amount of ghg reductions achieved as a result of Ontario's phase out of coal for electricity generation (and referenced in the Environment Plan as the largest single ghg reduction in Canadian history) and represents a significant reduction in Ontario's climate ambition and leadership. This is at a time when science is stating more action is needed, not less.

This new 2030 target also represents a reduction in action from what has been achieved over the past years. A reduction of 22% has been achieved since 2005 (over 13 years) and the new 30% reduction represents a reduction of 8% in the upcoming 11 years (the change in baseline from 1990 to 2005 further reduces Ontario's climate commitment).

While it is understandable that Ontario would try to align with the Canadian federal target, there is recognition by the federal government that its present targets are insufficient to ensure Canada does its fair share to achieve the likelihood that global temperature will be under the 2 degree increase. It should be noted that a 1.5 degree mark is increasingly being recognized as the needed target to avoid significant climate risks that pose a threat to our society and economy due to the impacts from extreme weather and climate changes. In order to address this gap between Canada's present commitments and what is needed to protect our climate system the government of Canada has committed to increasing Canada's climate target in 2020.

Ontario's Environment Plan also doesn't contain any mention of the 2050 target (which the IPCC states needs to be reduced by at least 80% by 2050). This is a significant issue as that target would need to be acted on far before 2030 in order to ensure that decisions made today (such as natural gas expansion, efficient smart growth, public transit, etc.) do not imbed Ontario's infrastructure and energy system in a higher carbon footprint that will make achieving the necessary 2050 target more difficult than it already is.

Despite the reduction in Ontario's ambition and leadership based on the committed targets within Ontario's Environment Plan, CAC member municipalities are very keen to work with the Province of Ontario and its various ministries to collaboratively achieve the committed directions and actions identified in Ontario's Environment Plan thus far. CAC member municipalities represent over half the population of the Province of Ontario and with over 55% of Ontario's greenhouse gas (GHG) emissions coming from buildings, transportation and waste; enabling municipalities to reduce their community's GHGs is key to achieving Ontario's clean air and climate change goals. The actions that address GHGs will also play a key role in ensuring Ontario advances towards a competitive position in the low carbon economy.

There are many reasons for Ontario to invest in a low carbon economy. Not only does it make good business sense (saving energy and reducing energy costs), but it is also necessary for addressing climate change. The International Energy Agency (IEA) estimates we need \$10.5 trillion in incremental investment globally in low-carbon energy technologies and energy efficiency by 2030. This estimate is across all sectors, including power, transport, residential and commercial building equipment, and industrial sectors. This transformation presents a significant growth opportunity to Ontario's economy

especially as it relates to electric and autonomous vehicles as well as building energy efficiency renovations (which create well-paying jobs that cannot be outsourced from Ontario). It also provides the opportunity for Ontario to participate as a player in the emerging low carbon economy while making our communities better places to live.

General Comments

The feedback below represents the CAC feedback on Ontario's Environment Plan thus far. The CAC recognizes the short time period allocated to the development of this Environment Plan, (which provides clarity on Ontario's priorities, goals and actions, but still lacks clarity on HOW these goals and actions will be advanced and implemented). We are keen to work with the province to further refine and advance the HOW of achieving Ontario's Environment Plan's commitments.

There is a gap in the Plan related to the training requirements that will be required within Ontario's workforce, universities, colleges and the trades in order to ensure that Ontario is prepared to advance the actions identified within the Environment Plan, especially as it relates to energy efficiency and climate resilience actions.

The Environment Plan has a significant gap in that there is no information and commitment on how energy use and emissions from the transportation sector will be addressed. We recognize that public transit infrastructure investments are a provincial commitment and are mentioned on page 38 of the plan. However, there is a lack of information on how transportation funding and/or uploading will ensure that it improves service and increases public transit's modal share. Transportation is the fastest growing sector for greenhouse gas emissions and as such should have a larger focus in Ontario's Environment Plan.

There is also a gap in information on the role the Province will play in Ontario's electric vehicle uptake. With the removal of EV vehicle and charging incentives with the cancellation of the cap and trade program there is the need for the Environment Plan to address how it will ensure that Ontario does not fall too far behind other Canadian jurisdictions on EV uptake and creating a hospitable environment for EV vehicle and charging manufacturing.

It is highly recommended that the Ministry of Transportation provide municipalities requesting so, free access to vehicle registration data within their jurisdictions. Many municipalities have been required to purchase this Ministry of Transportation data from a third party at significant cost. This data is extremely useful to municipalities for understanding their personal transportation emissions and in particular, for understanding where a critical mass of electric vehicle uptake is occurring within their community. This data enables municipalities to develop better informed Electric Vehicle Strategies and will be instrumental in informing public charging siting.

Another significant gap in the Environment Plan is its lack of mention on the role of active transportation to address Ontario's transportation and public health challenges. Provincial support of municipal efforts to advance active transportation's modal share would be of significant value not only in addressing congestion and overall transportation costs, but it would also play a significant role in reducing public health care costs. Increasing the ability of Ontarians to increase their physical activity via their commuting needs presents a significant cost effective health prevention opportunity as was

highlighted in the Improving Health by Design report released by Medical Officers of Health in the GTHA region. In addition, one of the factors in the GTHA region limiting public transit uptake is the high cost of providing parking at GO stations. Parking infrastructure at GO stations requires significant financial investments (however ensuring commuters can easily get to and from GO Stations is key to increasing public transit growth). Better alignment between local transit and increasing active transportation opportunities to and from GO stations present a cost effective opportunity to gain maximum value out of Ontario's public transit investments.

There is a gap in the Environment Plan related to market transformation efforts that will ensure Ontario's ability to achieve longer term and deeper GHG reductions. Reference is made to advancing present day cost-effective GHG actions but no mention is made of the need to move the market over the longer term from where we are now on reduction opportunities to where we need to be. These market transformation efforts are a key component of any climate plan.

There are numerous mentions within Ontario's Environment Plan of Ontario's low carbon electricity supply. However, what is lacking is a commitment within the Plan to ensuring Ontario's electricity supply remains low carbon. As we move to new electricity supply requirements in early to mid 2020s and the Pickering decommissioning and other upgrades, it is important that Ontario's Environment Plan speaks to a commitment to ensuring that Ontario's electricity supply continues to have a low GHG component attached to it. With renewable energy and storage opportunities coming down in costs, this also has the added benefit of ensuring lower cost electricity for Ontarians over time.

Protecting our Air, Lakes and Rivers Section

Air

The CAC is pleased that the Environment Plan has drawn increased attention to the connection between energy use, climate change and the public health impacts resulting from air pollution in Ontario. While efforts to reduce air pollution are needed across the Province, there are certain areas of the Province that are much more heavily impacted by poor air quality due to transportation and/or industrial emissions. More targeted efforts are needed in those areas in order to protect the health of local residents and to reduce the public health care costs borne by Ontarians due to air pollution. The CAC has been working for almost two decades to improve air quality and in the last few years has been undertaking significant collaborative work to better understand the interventions that can be put in place. In addition, the CAC has also worked extensively to ensure that efforts to monitor the results of air pollution reduction interventions are monitored and tracked to ensure an evidence based approach. More information on CAC air pollution actions and monitoring is available [here](#).

However, the top actions the CAC would like to work with the province to advance include:

- Gathering insights from other jurisdictions on how they are using air monitoring to study air quality variation, increase public and political awareness, engagement and support for policy interventions, and evaluation of effectiveness of interventions.
- Conducting pre and post air quality measurements for interventions including traffic calming, road closures, complete streets, active transportation, public transit, land use, etc. As monitors become more accurate and less expensive the following possible actions could be undertaken: mobile monitoring to undertake "a day in the life" studies (example, gathering exposure information for a car driver in traffic on a highway, using public transit, walking or cycling,

jogging on main arterial or in a park) and/or connecting air monitors to bike shares or public transit shelters.

- Develop a regional approach across the GTHA and Southwestern Ontario region to convene a multi-stakeholder approach to air pollution interventions and monitoring.

Water

- The CAC is pleased to see water conservation being a key priority of the Environment Plan. Extensive experience exists within the municipal sector on water conservation and efficiency and it is recommended that the Ministry work collaboratively with municipalities and agencies to expand and enhance successful actions and programs already in place in order to reduce Ontario's energy and water costs at the provincial, municipal and individual level.
- It is recommended that the Environment Plan's implementation ensure the linkage between climate change impacts and stormwater management. Climate change impacts will need to be factored into stormwater financing to ensure that we are doing our due diligence to ensure these systems are able to meet expected increased needs resulting from extreme precipitation.

Addressing Climate Change

While Canada's emissions account for 1.6% of global emissions that does not in any way warrant a rationale for a reduction in Canada and Ontario's climate commitments and actions. Only 8 countries have a higher contribution to total global greenhouse gas emissions (China @ 25.9%; United States @ 14.75%; India @ 6.43%; Russia @ 4.86%; Japan @ 3%; Brazil @ 2.25%; Germany @ 1.98%; and Indonesia @ 1.64%). It is only by all countries and provinces advancing towards the targets set out by the IPCC that we will be able to ensure that humanity meets the climate challenge ahead of us.

Improve our understanding of how climate change already impacts Ontario and how it will impact Ontario into the future

The CAC is pleased to see a commitment towards a provincial effort to better enable municipalities to have access to climate impacts within their community. While a provincial analysis of climate impacts and vulnerabilities is needed, it is absolutely imperative that this information be made available and explained at a more local level so that it can be factored into decision making.

The below recommendations provide feedback on **HOW** this can be achieved:

The CAC has been calling for the need to create a one-window source for leading climate projection data and adaptation information like is the case in other Canadian provinces. However, what CAC members think is just as necessary is a service where this data is downscaled and interpreted for Ontario municipalities and public health units, presented in formats that are understandable and can be operationalized by municipal staff across a range of municipal service areas. We would also need to better understand how the Province will address the dearth of funding available for municipalities and public health units to implement the adaptation measures they are planning.

Support the efforts of Ontario municipalities to integrate a mitigation and adaptation lens to funding, infrastructure processes and decision making, including technical support for municipalities in the development of climate change adaptation plans. In order to achieve this overarching goal the CAC recommends the following actions:

- Create a one-window source for leading climate projection data and adaptation information like is the case in other Canadian provinces. This one-window should provide data that is downscaled and interpreted for Ontario municipalities and public health units, presented in formats that are understandable and can be operationalized by municipal staff across a range of municipal service areas.
- Work with municipalities, conservation authorities and other key stakeholders to develop a framework for the consideration of future climate into municipal decision-making.
- Ensure an accountable and transparent structure for reporting on how climate change considerations have been integrated into infrastructure funding and decision-making.
- A financing mechanism is required to ensure no one level of government is unduly burdened with financing resilience.

Recognize and support the significant value of a more formal and better resourced Regional Climate Change Adaptation Collaborative as a mechanism to advance progress and capacity in Ontario communities.

While informal collaboration and information sharing networks already exist across Greater Toronto, Hamilton and into Southern Ontario, as a result of the efforts of municipalities, Clean Air Partnership, the Ontario Climate Consortium, as well as many others. There is a significant opportunity to augment that collaboration through the establishment of a more formal and better resourced regional resilience effort.

This would:

- Increase efficiency and outcomes, accelerating progress toward community resiliency;
- Reduce the duplication of effort, saving time and money;
- Streamline municipal and sectoral implementation of resilience opportunities;
- Serve community members enabling prosperity within and across jurisdictional boundaries; and
- Provide a much more effective mechanism for addressing interdependencies between sectors that cross local municipal boundaries.

Work with and learn from other regional collaboratives taking place in other jurisdictions.

There has been significant effort in developing Regional Resilience Networks in the United States, Australia and the European Union that can serve as guidance for Ontario Regional Resilience Collaboratives. For example, the [Lessons on Regional Resilience Report](#) on best practices from the United States found that, while still respecting roles and decision making in each jurisdiction involved, regional collaboratives:

- increase overall synergies;
- reduce duplication of effort;
- enable entities to leverage scarce financial resources and staff time;
- raise the bar for collective assessment of climate change risks;
- facilitate data sharing and analysis; and
- support the development of regional strategies for responding to the threats posed by climate change.

Public Education and Action Advancement

The CAC is pleased that the Environment Plan has committed to helping Ontarians understand the impacts of climate change. Public information at the provincial level on how to reduce our vulnerability to climate impacts is key to ensuring Ontarians' resiliency. In addition to provincial-wide education and engagement, it is also important that the province work with other sectors to advance understanding of impacts and actions to improve resilience. It is only by working collaboratively across sectors that Ontario will achieve that necessary goal. Regional collaboratives are an excellent mechanism for acting and delivering on more localized regional priority needs.

In addition to the above impacts on our communities and infrastructure it is also extremely important that provincial messaging and efforts also speak to the significant health impacts of climate change. Climate change has the potential to affect human health by:

- increasing temperature-related morbidity and mortality;
- exacerbating poor air quality and worsening respiratory and cardiovascular conditions;
- increasing the risk of injuries and mortality resulting from extreme weather;
- increasing food and water contamination with resulting increases in illness;
- increasing the incidence of vector-borne illnesses, such as Lyme disease, associated with the spread of vectors as Ontario's climate become more favourable to their survival;
- having effects on psychological health, including mental health and stress-related illnesses.

Update Government Policies and Build Partnerships to Improve Local Climate Resilience

The CAC is pleased to see a commitment to modernizing the Building Code to better equip homes and buildings to be better able to withstand extreme weather events. The Institute for Catastrophic Loss Reduction and Durham Region have been working to advance a Resilient House Standard and it would make sense to support and enhance those efforts as well as to identify gaps that will need to be addressed.

The CAC is also pleased to see reference to the need for financial mechanisms to address how to increase the resilience to extreme weather effects on existing buildings. As such, tax policy options to provide incentives for Ontario businesses and residents to undertake the actions that will increase their resilience is necessary. The CAC would like to recommend that addressing the upfront capital costs of such actions also be factored into future actions in addition to the tax policy options being considered. By addressing upfront costs and by providing tax policy incentives in the possible form of tax deductions for costs associated with climate resilience actions present a viable opportunity to moving climate impact awareness into action.

There is significant concern by CAC members of the mixed message between adherence to land use and growth management planning policies whereby Ontario's Environment Plan speaks to the connection between those policies and Ontario's climate change resilience and mitigation commitments. The CAC is very pleased that the Province of Ontario recently announced the removal of schedule 10 from Bill 66. Schedule 10 would have negatively impacted land use efficiency and natural capital asset protection (which are key to climate change mitigation and resilience efforts). The goals of these policies can only be achieved when the rules are applied consistently and with transparency. It is also important to remember that while there are significant environmental benefits resulting from the

implementation of efficient growth policies and plans, there is significant financial sustainability implications associated with opting out of adherence to these land use and growth management plans and policies. Our infrastructure deficit is a direct result of the costs associated with development, operations and rehabilitation of infrastructure being insufficient in comparison to the revenue received and allocated to our infrastructure needs. Ensuring a financially prudent and accountable linkage between growth management and infrastructure needs is imperative to addressing our infrastructure funding challenges.

Projected Greenhouse Gas Emissions in Ontario

The CAC would like to better understand the assumptions that were made relating to the projected GHG emissions in Ontario. It seems that there is a Business As Usual assumption that calls for no growth in GHG emissions despite actions being undertaken that will likely have an impact on future GHG emissions such as the expansion of natural gas infrastructure. Increased clarity on projections and assumptions would be greatly appreciated.

Path to Meeting Ontario's 2030 Emission Reduction Target

It is recommended that the Environment Plan provide an accompanying chart that identified the various actions, how they will be advanced, who will be involved, what success will look like, and key targets and performance indicators that will be used within each of the action areas to ensure accountability and transparency in implementation and monitoring and progress reporting.

Ontario Carbon Trust

The CAC would like to recommend that a municipal sector stream be incorporated into Ontario's Carbon Trust. The need for a municipal stream can be evidenced based on the response to the Municipal Challenge Fund which allocated \$100 million dollars on an annual basis to advance municipal GHG reductions actions. Over a total of 336 applications were received from 117 municipalities for the first and only round of the Municipal Challenge Fund. In addition, \$400 million for all of Ontario over 4 years is insufficient to advance the energy saving reduction opportunities available. Ontario's cap and trade program would have resulted in an investment of approximately 6 billion dollars in increasing the energy efficiency of Ontario's infrastructure and assets. The \$400 million dollar commitment represents a reduction of 93% in Ontario's infrastructure renewal and energy reduction potential. There is recognition that the Consolidated Revenue Stream will not be able to handle the level of investment that a reinvested carbon price allows. As a result, supporting the advancement of tax policies for incentives alongside supporting financing and business model mechanisms will be critical to ensuring Ontario advances and acts on its infrastructural renewal and energy saving opportunities. However, provincial support and leadership will be necessary to advance tax policy, financing and business model opportunities in order to address this very significant gap.

Enhance Corporate Disclosure and Information Sharing

The CAC greatly supports the Environment Plans commitment to advance the ability and requirement to report on climate related disclosures from all Ontario sectors and governments.

Waste

The CAC recommends that the Province work with municipalities and the agricultural sector to advance their ability to turn organic waste into Renewable Natural Gas. Significant opportunities exist within

Ontario communities, however there will be the need for provincial leadership to advance the innovative financing and business models needed to capitalize on Ontario's RNG opportunities.

The action item to establish an official day focused on cleanup of litter in Ontario provides an excellent opportunity for the Province to leverage and build upon the work and efforts of a significant number of Ontario municipalities that deliver on a Litter Clean Up day annually on Earth Day (April 22nd). It is also recommended that the Province commit to the identification of opportunities to leverage existing programs and efforts and as the Province is an ideal role to expand and scale-up these programs.

Conserve Energy in Homes and Buildings to Cut Costs and Reduce Emissions

Some sectors such as existing residential building stock are more difficult to achieve cost effective energy reductions (in comparison to other building stock within the industrial and commercial sector). The cost effective challenge stems from the disaggregated nature of the residential sector and the higher costs of getting uptake especially at the building envelope level (which are necessary to achieve deeper energy reductions that would bring them into alignment with necessary GHG reduction targets). CAC members have identified existing building energy retrofit programs as a priority action in their Climate and Energy Action Plans but there is the need for the Province to play a leadership role to support the opportunities that exists in this sector to reduce energy costs and their exposure to carbon price increases over time.

The Clean Air council has already provided input to the Province on what actions would play a significant role in greatly increasing the effectiveness of a home energy retrofit program, which include:

- Creation of a loan loss reserve fund to back-stop municipal Local Improvement Charges (LICs) or utility on-bill financing in the unlikely case of default.
- Pooling resources to bundle energy efficiency and extreme weather resilience actions.
- Creation of a one stop entity that would promote and market energy and climate resilience actions and support customers with program navigation and third-party objective guidance and support.

The CAC recommends that the Ontario Building Code move towards a Net Zero stepped approach similar to the BC Step Code and the City of Toronto Green Standard (the National Building Code is moving in this direction as well). However, it is also recognized that when the Province sets mandatory standards within the Ontario Building Code, it has to take a very large geographical area with varying markets and capacity into consideration. As such, the Province is required to set the Building Code at a level that can be achieved across that very large geographical area. By providing municipalities with the authority to mandate above the base requirements within the Building Code, Ontario municipalities can serve as living laboratories for energy efficiency and climate change resilience innovation and thereby test and advance the market at a smaller scale. Successful adoption of standards at the municipal scale can then inform and be integrated into future updates to mandatory components of Ontario's Building Code thereby increasing capacity of the wider market more quickly and effectively across Ontario. A similar approach is being advanced in British Columbia whereby municipalities are able to require a higher standard than the minimum standard set within the Provincial Building Code.

The CAC recommends a mandatory approach over a voluntary to home energy use disclosure in order to better inform and protect buyers of their operational energy and carbon costs and provide a stronger incentive for energy saving retrofit actions.

Community Energy and Climate Plans

The Clean Air Council supports the commitment on page 37 where the province will work with municipalities to develop climate and energy plans and initiatives to support climate resilience and the low carbon transformation. It is hoped that this commitment will result in support for the continuation of the Ministry of Energy, Northern Development and Mines' Municipal Energy Plan program that has enabled a number of the municipalities within the Clean Air Council network to undertake the development and adoption of Community Energy Plans. This program has been very effective in raising the level of engagement within municipalities, their stakeholders and the community on local energy savings and use opportunities. We would like to provide our support for the continuation of this program.

In addition to a commitment to advancing the development of municipal climate and energy plans there is also the need for the Province and its various Ministries to work with municipalities, utilities and other key stakeholders to support the implementation of these Community Energy Plans. There are significant regulatory, institutional and financial barriers associated with advancing community energy projects. Initial barriers identified by municipalities include, but are not limited to: a) The role that utilities can and cannot play in community energy within their regulated utility and the administration associated with setting up an unregulated arm to the utility. b) How community energy projects can be financed: Ontario's centralized energy system investments can be paid for by the rate base while community energy projects are ineligible to mobilize capital through the same base, thereby placing it at a significant financial disadvantage. c) Advancing business models (such as de-risking/enabling smaller scale public/private partnerships and virtual third party net metering) will be key to enabling Ontario to best prepare for the energy transition that distributed energy opportunities will provide to best meet local energy needs with local energy solutions.

Data Access

The CAC recommends improving ease of access to energy use data for municipalities to help them more easily undertake energy inventories so that they can better understand how energy is used within their community and advancing their ability to identify energy saving opportunities. Municipalities are very keen to work with the Province and utilities to streamline data access in order to reduce costs to all stakeholders associated with energy data access and analysis.

It is recommended that the Ministry of Energy, Northern Development and Mines undertake energy inventories for Ontario municipalities. Significant time and resources are required on the part of municipalities to undertake the energy inventories needed to track energy use and identify opportunities to reduce energy use, increase energy resilience and meet energy needs more locally. Significant economies of scale are achievable by centralizing the collection and analysis of energy data for municipalities to better enable them to allocate more time and financial resources into the community energy planning and implementation actions rather than data collection. For example, the Community Energy and Emissions Inventory (CEEI) program delivered in British Columbia has been recognized as an initiative that has enabled BC municipalities to make more progress than municipalities in other provinces and territories on implementing climate change actions within their communities. Such a program in Ontario can save municipalities significant financial and human resources and allow for more resources to be allocated to implementation of actions rather than inventory collection and analysis.

In regards to energy use data to guide decision making, policy and program development and monitoring and tracking of results, the CAC would like to once again recommend that the Province provide access to municipalities to the Large Building Energy and Waste Reporting and Benchmarking (LBEWRB) data within their jurisdiction. In addition, it is recommended that the Province undertake benchmarking of the data in order to better enable an understanding of where the greatest opportunities exist for energy and GHG reductions. It is also recommended that the LBEWRB regulation be accompanied by data verification, disclosure of additional building elements such as building age, square footage, fuel type, etc. that would facilitate benchmarking and allow for better data to inform Conservation Demand Management Plans.

Distributed Energy Decision Making

In order to better support the implementation of local energy opportunities where they best enable benefits at the local, regional and provincial level; there is the need to develop an Energy Transition Road Map and Decision Making Matrix. The province, municipalities and utilities need to work together to develop and navigate a road map for the transition to a more decentralized energy system. Suggestions that CAC members would like to work with provincial and utility partners to develop and test include analysis of the following: (1) Identify potential futures: Accessing ever deeper energy efficiency opportunities (Conservation First principle); business as usual generation (centralized system); decentralized generation (community with or without micro grid); individual generation (not connected up to any other grid simply at the building level) and how these scenarios impact or support each other. (2) Identification of the various pros and cons; costs and benefits associated with each of the scenarios, and development of a decision matrix to compare among them. (3) Review of the various scenarios from a variety of different lenses: provincial system, local/community system; resilience; climate; economics and economic development; social, short term, longer term, market transformation, etc.

Next Steps and Implementing Our Plan

Engagement and Consultation

The Clean Air Council municipal members are **keenly interested in developing a long-term collaborative process that brings together Clean Air Council member municipalities with the various Province of Ontario ministries** to empower Ontario municipalities to be able to act on the climate change mitigation and resilience opportunities within their communities.

Significant experience and expertise exists within the Clean Air Council network and we look forward to working with the Province of Ontario to reduce our risks from the impacts of climate change and advance our low carbon transformation. It is only by increasing the communication and alignment between the province, its various ministries and municipalities that we will be able to create the livable, resilient and economically competitive communities Ontarians' desire. We all want and need Ontario's economy to grow and thrive. Helping businesses, municipalities, organizations, workers and individuals transition to clean, lower-cost, energy-efficient solutions can make our province more competitive and healthy, create new jobs in many industries, increase Ontario's energy independence, and reduce carbon pollution all while cutting energy costs and creating healthier communities for Ontarians.

Advisory Panel

The CAC requests that the proposed Climate Advisory Panel include representation from those that can speak to the municipal opportunities and challenges related to the implementation of Ontario's Environment Plan.

Measuring and Reporting on Progress

The CAC is pleased that the Environment Plan has committed to regular reporting on progress and results of the Environment Plan. It is recommended that an Implementation Plan for the Environment Plan be developed that will enable the Province to undertake consultations with key sectors (with municipalities being one of the sectors) in order to identify the actions and tasks that will be required in order to implement Ontario's Environment Plan. Developing metrics and key performance indicators of what success looks like and how progress will be measured should be a key component of the Implementation Plan.

It is recommended that progress reporting on Ontario's Environment Plan occurs on an annual basis and that a third party progress report (such as that undertaken by the Environmental Commissioner's Office – now moved to the Auditor General's Office) remains as a requirement of the Plan.

Alignment Across Governments

The CAC does not support the allocation of Ontario's financial resources to challenge the authority of the federal government's to implement a carbon price. The issue of climate change requires all orders of government to work together to ensure Ontario's and Canada's long-term future. Climate change poses a significant risk to that future. Debate and discussion on how best to meet our climate change challenges and opportunities is healthy and encouraged, but commitment to the necessary GHG reduction targets should be supported by all orders of government. Carbon pricing has been found to be a necessary and effective avenue for encouraging and financing GHG reduction actions.

For more information or for any further discussions related to this submission or the Clean Air Council please contact Gabriella Kalapos at gkalapos@cleanairpartnership.org.

Appendix A: Costs and Impacts of Climate Change

The US Council of Economic Advisors found that if delayed action causes the mean global temperature increase to stabilize at 3°C above preindustrial levels, instead of 2°C, that delay will induce annual additional damages of 0.9% of global output. To put this percentage in perspective, 0.9% of Ontario's 2017 GDP is \$7.5bn. An additional degree increase, from 3°C to 4°C, would incur greater additional annual costs of 1.2% of global output or almost \$10 billion dollars from Ontario's GDP. These costs are not one-off costs: they would be incurred year after year because of the permanent damage caused by additional climate change resulting from the delay.

It is also worthwhile to note, in light of the costs from extreme weather that Ontario and other jurisdictions have incurred, these estimates are likely to be significant underestimations. Climate change impacts are already costing everyday Ontarians significant financial and social costs through extreme weather; cleaning up flooded basements, fighting forest fires, and evacuating homes threatened by those fires, as well as suffering health impacts from polluted air and extreme heat and mental health impacts as a result of evacuations and damage to property.

In recent years, Ontario has seen a rise in climate-related extreme weather events, which have brought to the forefront both climate and infrastructure vulnerabilities, through extreme rain, wind, freezing rain and ice, and flooding. As per the Insurance Bureau of Canada (IBC), "the costliest insured severe weather event of all time for Ontario remains the 2013 Toronto floods, which alone caused almost \$1bn in damage." The year 2018 on its own has seen numerous extreme weather storms, resulting in the following insured losses (not including costs to governments):

- January 2018: Winter storm damage in Toronto, London & southwestern Ontario of nearly \$10m
- February 2018: Water and winter storm damage in southern Ontario of over \$40m
- Early April 2018: Wind and rain storm damage in southern Ontario topping \$79m
- Mid-April 2018: Winter storm and ice storm in Toronto and southwestern Ontario of over \$187m
- May 2018: Wind and rain storm in Hamilton & the GTA of over \$500m
- August 2018: Extensive flooding due to rain storm in Toronto of over \$80m

These impacts are on top of a number of recent extreme weather events that have already caused significant costs for municipalities, insurance companies and Ontarians.

- In 2016 Windsor's flooding caused \$108m in insured losses and Windsor's 2017 flooding caused \$124m in insured losses. A survey of flooding victims found that an estimated 45% of the residents had insurance cover these losses. The rest used personal savings, cashed in RRSPs, remortgaged their property, and/or borrowed from family and friends. This survey also highlighted the emotional toll it has taken on those who have flooded (i.e. increased anxiety, fear).
- Estimated insurance cost of the 2014 flood in Burlington was close to \$90m.

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- The 2013 Ice Storm resulted in \$65m in direct costs to the City of Toronto and \$940m in insured losses.
 - The 2013 Flood in Toronto resulted in \$103m in direct costs to the City of Toronto and almost \$1bn in insured losses.
 - The 2005 Flooding resulted in \$50m in direct costs to the City of Toronto and \$500m in insured losses.