

SUBMISSION for CONSIDERATION FINANCE CANADA

Submission to: The Minister of Finance, the Honourable Bill Morneau

From: Dr. Tom Pedersen (Chair) and Ms. Deirdre Laframboise (Executive Director), on behalf of the Canadian Climate Forum

Proposal Re:

“The Canadian Climate Council: A National Strategy for Systemization of Climate Adaptation and Mitigation Best Practices”

Extreme weather and climate affect the prosperity and wellbeing of Canadians and the economy and our competitiveness as a nation. The Federal government has made ambitious and much needed commitments to reducing greenhouse gas emissions, to investing significantly in infrastructure, and to implementing incentives to invigorate the green economy. This will require a massive effort that calls upon cooperation and coordination at all jurisdictional levels including municipal, provincial and the federal governments.

While achieving Canada’s climate change goals *is* feasible, it will require development and application of policies that must be based on best-available evidence and—importantly—on analysis that spans multiple disciplines: science, engineering, social science and economics, health, risk & safety, law, and human psychology.

The Canadian Climate Forum (the Forum) proposes creation of a national agency, the **Canadian Climate Council**, that will play a vital role in uniting sectors and stakeholders across Canada to help the federal government develop best policy practices by drawing on highest quality scientific and social scientific knowledge. The Forum sees an urgent need for such a body for, at present, Canada lacks a national, independent climate-change agency that has a mandate to address common climate change goals across jurisdictions. The proposed Canadian Climate Council would apply climate research, in hand with social sciences, to shape adaptation and mitigation policies in the service of the federal government and in support of the physical and economic safety and wellbeing of Canadians.

We emphasize that the Council is not intended to be a research-granting agency, unlike a previous national agency¹. Rather the Council’s primary purpose will be to mobilize and apply knowledge at the science-to-policy interface to generate policy options that directly address the climate challenge that Canada—and all countries—face.

¹ Beginning in 2000 the federal government, under then Prime Minister Jean Chretien, endowed the Canadian Climate Forum (formerly the Canadian Foundation for Climate and Atmospheric Sciences) with a total of \$110 million. These funds supported ground-breaking climate change science research across Canada until 2012.

Cost and Source of Funds

FY 2016-2020: \$50 million (\$10m/yr.) via an endowment to the Canadian Climate Forum

Sources of funds: Ministry of Finance (50%) and balance from other Ministries with mandated responsibility for climate change: Environment & Climate Change; Science; Natural Resources Canada; Fisheries & Oceans; Public Safety; Infrastructure; Agriculture Canada; Health; and Department of National Defense.

Context

Last December, Prime Minister Justin Trudeau announced that Canada intends to reduce its greenhouse gas emissions 30% below 2005 levels by 2030; this formal commitment that stands as an unprecedented challenge for the nation.

The need for action on climate change has never been greater as weather-related disasters and threats continue to rise and threaten the economy and the safety and wellbeing of Canadians. As recent events below reveal, the costs and impacts are staggering:

- Climate change is expected to cost Canadians an average value of \$5 billion per year in 2020, increasing to an average value of between \$21 billion and \$43 billion per year by 2050.²
- The Insurance Bureau of Canada estimated the July 8, 2013 Toronto storm costs close to \$1 billion in damages – the most expensive natural disaster ever in Toronto and Ontario.³
- In 2011, the Canadian insurance industry paid out a record \$1.7 billion for property damage claims linked with weather events.⁴
- 2015 was a very active wildfire season, especially in Western Canada:⁵
 - 4,922 fires burned 3.25 million hectares of woodland (4 times the 25-year average)
 - Firefighting costs alone in BC cost the province \$300 million (twice the 10-year average)
 - 13,000 people were evacuated in Saskatchewan due to fires in 2015

² National Roundtable on the Environment and the Economy. 2011. Climate Prosperity: A Canadian Initiative. http://www.fcm.ca/Documents/reports/PCP/paying_the_price_EN.pdf

³ *ibid*

⁴ Robinson, G. 2011. Extreme Weather and Insurance; November, NRTEE-NBC Climate Change Adaptation Forum.

⁵ Canadian Meteorological and Oceanographic Society. Canada's Top Ten Weather Stories for 2015. http://cmos.ca/site/top_ten?a=2015

- New Brunswick Power had one of its most disruptive and expensive years on record in 2014, with seven major storms disrupting power to hundreds of thousands of homeowners and businesses with costs of more than \$40 million.
- In Manitoba and Saskatchewan, well over one million acres of seeded fields were flooded or drowned and another two million were left unseeded in 2014.
 - As much as six million acres of farmland were damaged
 - Total costs from flooding exceeded \$1 billion due to infrastructure damages and lost crops. Hardship was especially prevalent in several First Nations communities where flooding is disproportionately felt.
- In B.C. a report published by the Provincial government projected sea level rise of half a metre by the year 2050, one metre by 2100 and two metres by 2200. They compared the costs of a variety of adaptation options from dyke construction to flood proofing and managed retreat. The study estimated that the cost for upgrading infrastructure would be about \$9.5 billion.⁶

All indications to date demonstrate that the new federal government is keeping to its pre-election commitments to fully support evidence-based decision and policy making - we applaud Prime Minister Trudeau and his Cabinet for following through on this commitment.

Now, the tough decisions and hard work must begin. The Forum is offering its experience and skills to assist the government in its important and critical climate change mandate.

Addressing Challenges to Greater Climate Change Systemization

The Climate Council model will foster a streamlined approach to decision-making based upon collaboration, commissioned research, knowledge dissemination, alignment of data and information management, and enhanced communication with and among federal Ministries. Ultimately, the Climate Council's main goal is to support the government's adoption of best practices in climate adaptation and mitigation policies.

Recently we met with over fifteen senior bureaucrats (DG, ADM level) in six key federal government Ministries mandated to address climate change (Environment and Climate Change; Fisheries and Oceans; Natural Resources Canada; Infrastructure; Public Safety; Science; and Agriculture-Agri-Foods) to discuss challenges and opportunities facing their departments and the federal government on the climate change file.

In these meetings we heard a consistent message; there is a strong need for cross-Ministerial systemization of research, data management, and knowledge sharing and communication

⁶ BC Ministry of Forest, Lands and Natural Resource Operations (2012): Cost of Adaptation: Sea Dikes and Alternative Strategies; BC Ministry of Forest, Lands and Natural Resource Operations, http://www.env.gov.bc.ca/wsd/public_safety/flood/fhm-2012/draw_report.html.

strategies. We also heard that there is a significant challenge facing bureaucrats between the political commitment (i.e. policy) and the capacity (mainly human resources) to implement the government's expected policy commitments.

Making the Transition – the Canadian Climate Council

We believe the proposed **Canadian Climate Council** can be a catalyst for the change this country will be undergoing as government policy helps Canada transition to a cleaner, greener economy. The Climate Council's profile and **main objectives** include:

- Establishment of a modest secretariat based in Ottawa (possibly at the University of Ottawa)
- Governance by a diverse Board of Directors, as well as a highly qualified staff and an Advisory Committee that, combined, offer skills and knowledge to lead and represent the diversity of climate related issues.
- Production of policy-oriented multidisciplinary outputs, based on an inclusive process of multi-stakeholder engagement and rooted in best-available expert knowledge from national and international sources.
- Annual SWOT and gap analyses for refocusing and priority setting.
- Establishing communication channels and systems to regularly inform public and private sectors.
- Drawing upon international perspectives, knowledge and case studies as needed.

We believe a model like the Climate Council will save the government of Canada millions of dollars, primarily due to the reduction in duplication and inefficiencies across Ministries, better alignment of research strategies and budgets, better coordinated data management, and improved, collaborative public communications efforts.

Building on Successful, Existing Models

Our intent is not to reinvent the wheel by creating something new, but rather to learn from existing, successful models such as the Pacific Institute for Climate Solutions (PICS). PICS launched in British Columbia in 2008 as a four-university consortium hosted and led by the University of Victoria. It is financed in perpetuity by a \$90 million endowment from the Province of B.C. (www.pics.uvic.ca).

PICS is an applied think tank with a mission to draw on expertise in academic and government research agencies, as well as the private and NGO sectors, to provide knowledge that can contribute directly to shaping robust climate-action policy in five domains of key importance to the province including:

- Transportation futures for BC;
- Electrical grid integration in western Canada;
- Energy efficiency in the built sector;
- Carbon management in BC's forests; and
- Responsible natural resource management

For each domain, policy recommendations are being produced by well-funded expert, multi-disciplinary and multi-sectoral research teams. Those will help British Columbia respond constructively and directly to the climate change challenge.

In addition, PICS has important climate communication and outreach functions that engage and inform the citizenry of British Columbia including First Nations. And last, but not least, PICS works closely with the provincial government. Such cooperation, while maintaining independence, is necessary given that development of well-informed provincial policy is a key PICS and societal objective.

Conclusion

As the federal government works diligently to meet new climate change, energy and infrastructure commitments, the tide of forecasted climate change threats and disasters will not be held at bay. Sadly, the past decade neglected the commitment and focus that was needed to address the consequences of a rapidly warming planet. Thankfully, the new government of Canada recognizes the urgency, and the majority of Canadians understand that the time for action on climate change is now.

There is a huge effort needed to realign the stakeholders, unite our energy and human resources around common goals, and work together to make Canada once again a world leader in sustainability and innovation.

The Canadian Climate Forum is ready to serve and has a proven and distinguished past in our former role as the Canadian Foundation for Climate and Atmospheric Sciences. We comprise an extensive national (and international) network of highly qualified researchers and are ready to work closely with the federal government to help it meet its commitments and targets. We believe this can best be served by creating the proposed Canadian Climate Council. Should we be asked, the Canadian Climate Forum would be willing to take on that responsibility.

Dr. Tom Pedersen is the Forum's Chair of the Board, Founding Executive Director of the Pacific Institute for Climate Solutions (2009-2015), and Professor, Earth and Ocean Sciences, University of Victoria. He is a Fellow of the Royal Society of Canada and the American Geophysical Union.

Deirdre Laframboise is the Executive Director of the Canadian Climate Forum, based at the University of Ottawa. She holds two degrees in environmental sciences and has spent over 20 years developing and implementing national climate change related programming.