BVIS.1.3

CLIMATEFAST

HUNGRY FOR CLIMATE LEADERSHIP
AFFAMÉS DE LEADERSHIP POUR LE CLIMAT

SUBMISSION TO BUDGET COMMITTEE – JAN 10TH, 2017

Thank you for the opportunity to speak today on the 2017 budget. You have a very important job to do on behalf of all Torontonians and the decisions you make will have long term impacts on our city.

Cities produce 75% of global carbon emissions. That makes cities a very important place to take climate action. The City of Toronto has made a commitment to reduce climate emissions 30% by 2020 and 80% by 2050. It's extremely important to do so as it will take strong coordinated action in all jurisdictions to head off global temperature rise of as much as 4 – 6 degrees C. this century. Our international commitment is to stay under a global rise of 2 degrees. Mayor Tory signed a climate pledge in Paris in 2015. This chart shows what the current trajectory looks like – a business as usual path, with the Paris commitments, and what's actually required in terms of reducing emissions to stay under 2 degrees temperature rise. Without strong climate action we will see a global reduction of as much as 40% in the ability to feed ourselves, sea level rise of one to three metres, millions of climate refugees and a potentially unlivable planet. Locally we will see severe costs due to flooding from extreme weather and rising food prices. We are already seeing this. I was in India last fall and visited areas that are experiencing severe drought as a result of emissions from other parts of the world. Drought equals famine, and famine equals instability. As Canada's largest city we can play a leadership role in taking the steps required for a stable climate future. Places like Germany have shown us how we can cut carbon and transition to a renewable energy economy and the City's own Toronto Atmospheric Fund has funded some important projects that take us in that direction.

The City of Toronto Environment and Energy Division has prepared a staff report (PE15.1) as part of its initiative 'Transform TO'. In its Report for Action dated Dec 12 2016 called 'Transform TO Short Term Strategies Business Case' p. 2 notes that $1.6 million needs to be added to the 2017 budget. This amount can be leveraged to millions more and can start reductions needed in the 2017 – 2020 period as well as prepare for the long term reductions needed, which will be much more difficult to reach. It's a steep trajectory and we need to get a start on it. *(illustration)* $1.6 million is a small amount of money, and extremely important to spend now. The longer we delay climate action the more carbon emissions accumulate and the harder it will be to make the cuts required to stay under the 2 degree rise.

The report outlines strategies in housing, in transportation, and waste management to achieve the reductions. Transform TO is working with community groups like ours (ClimateFast) to engage the wider community.

It's really important right now is to understand and plan for the increase in transit required if we are to reduce our climate emissions from transportation. *We need a 'modal shift' from cars*

to transit, cycling, and walking, and we need to invest in the infrastructure needed ***and keep the cost of transit affordable and attractive*** *if we are to achieve these goals.* To make the investments in transit, in building retrofits, and other measures outlined by Transform TO in the years ahead we will we need to increase revenues to the city. In December I attended a session on the long-term financial options for the City and was very impressed at the variety of revenue options open to the City. There is no reason why we should be lacking in the funds to create the great City we all want Toronto to be. Community programs and services should be well funded in operating dollars – and infrastructure, especially transit, and energy retrofits, should receive the necessary capital required – because we can generate the funds we need. Councillors should be prepared to increase property taxes to the GTA average, and should also consider hotel tax, vehicle registration fee, municipal sales tax and many other options. **40% of Toronto's climate emissions come from transportation, that means cars**. *Road tolls are not enough. They will not be in place for years and will almost entirely go to funding the very expensive Gardiner rebuild, a project that takes us the opposite direction from where we need to go in terms of the modal shift to transit.* What we need is an ambitious transit construction program, and a well-funded TTC operating budget.

In the immediate term please do take the step of funding Transform TO for $1.6 million in 2017 to set us up for success. Transform TO will also bring with it co-benefits such as job creation. By investing now we will attract funding from other levels of government. The City will be a better place for taking this action and our children will thank us.

Lyn Adamson

[redacted]

For CLIMATEFAST,

[redacted]

climatefast@climatefast.ca

NOTES ON CLIMATE CHANGE – WITH REFERENCES

We care for climate change because we have already warmed Earth's surface temperature by 1.2 degrees Celsius since the beginning of the industrial era (World Meteorological Organization, 2016). The current rate in which humanity emits greenhouse gases into the atmosphere puts us on track to warm Earth's surface temperature by 4-6 degrees Celsius by the end of this century (IPCC, 2014, Synthesis Report, pp. 17-25).

This warming means that by the end of this century the ability to grow food in vast regions across the globe will decline by 40-60% (ibid, pp. 64-73), and sea levels will rise by at least one meter (ibid, pp. 42-43). Recent estimations published by a group of leading scientists studying loss of ice mass in Greenland (Kjeldsen *et al.*, 2015) and in Antarctica (Hansen *et al.*, 2016), claim that by the end of this century sea levels are anticipated to rise by several meters. This rise will submerge low-lying coastal regions and cities (IPCC, 2014, Synthesis Report, pp. 42-43; Hansen *et al.*, 2016).

A substantial sea level rise, coupled with a sharp decline in the ability to grow food, will cause hundreds of millions of people to become refugees (IPCC, 2014, Impacts, Adaptation, and Vulnerability, pp. 766-771).

The technology to generate 100% of humanity's energy via renewable energies already exists. A work promoted by several technological universities delineates a detailed roadmap on how to transition 139 countries into using 100% renewable energies (wind, water and sunlight) in all sectors (electricity, transportation, industry, agriculture, aviation, shipping) by the year 2050 (Jacobson *et al.*, 2016).

Implementing this transition would cost humanity approximately $2.9 trillion every year from 2016 to 2050 (ibid, p. 1). However, the resources to make this transition exist. According to the International Monetary Fund, the oil-coal-gas industry receives subsidies and tax relief every year that amount to $5.3 trillion (IMF, 2015, p. 5).

References

Hansen, J., Sato, M., Hearty, P., Ruedy, R., Kelley, M., Masson-Delmotte, V., ... & Velicogna, I. (2016). Ice melt, sea level rise and superstorms: Evidence from paleoclimate data, climate modeling, and modern observations that 2◦ C global warming is highly dangerous. *Atmospheric Chemistry and Physics Discussions*, *15*(14), 20059-20179.

IMF: International Monetary Fund. (2015). *How Large Are Global Energy Subsidies*? DC, Washington: IMF.

IPCC: Intergovernmental Panel on Climate Change. (2014). *Climate Change 2014: Synthesis report. Contribution of working groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Core writing team, R.K. Pachauri and L.A. Meyer (eds.)]. Geneva, Switzerland: IPCC.

IPCC: Intergovernmental Panel on Climate Change. (2014). *Climate change 2014: Impacts, adaptation, and vulnerability. Part A: Global and sectoral aspects. Contribution of working group II to the fifth assessment report of the intergovernmental panel on climate change* [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (Eds.)]. New York, NY: Cambridge University Press.

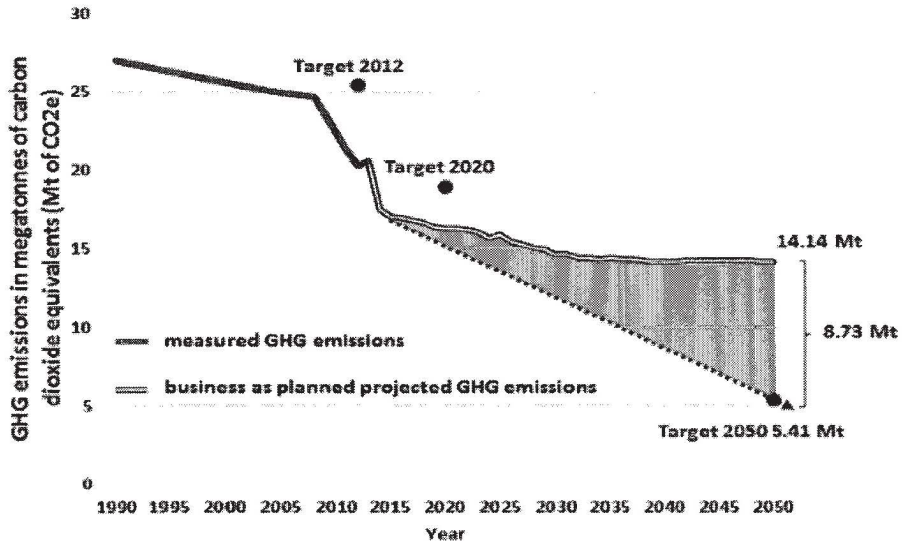
Jacobson, M. Z., Delucchi, M. A., Bazouin, G., Bauer, Z. A., Heavey, C. C., Fisher, E., Morris, S. B., Piekutowski, D. J., Vencill, T. A. and Yeskoo, T. W. (2015). 100% clean and renewable wind, water, and sunlight (WWS) all-sector energy roadmaps for the 50 United States. *Energy & Environmental Science*, *8*(7), 2093-2117.

Kjeldsen, K. K., Korsgaard, N. J., Bjørk, A. A., Khan, S. A., Box, J. E., Funder, S., ... & Siggaard-Andersen, M. L. (2015). Spatial and temporal distribution of mass loss from the Greenland Ice Sheet since AD 1900. *Nature*, *528*(7582), 396-400.

World Meteorological Organization. (2016). *Provisional Statement on the Status of the Global Climate in 2016*. Retrieved November 23, 2016, from http://ane4bf-datap1.s3-eu-west-1.amazonaws.com/wmocms/s3fs-public/2016_WMO_Statement_on_the_Status_of_the_Global_Climate-14-11-16-ver2.pdf?ZmIaubFZknHEGDBpyxTBpTcrNotiDpDo

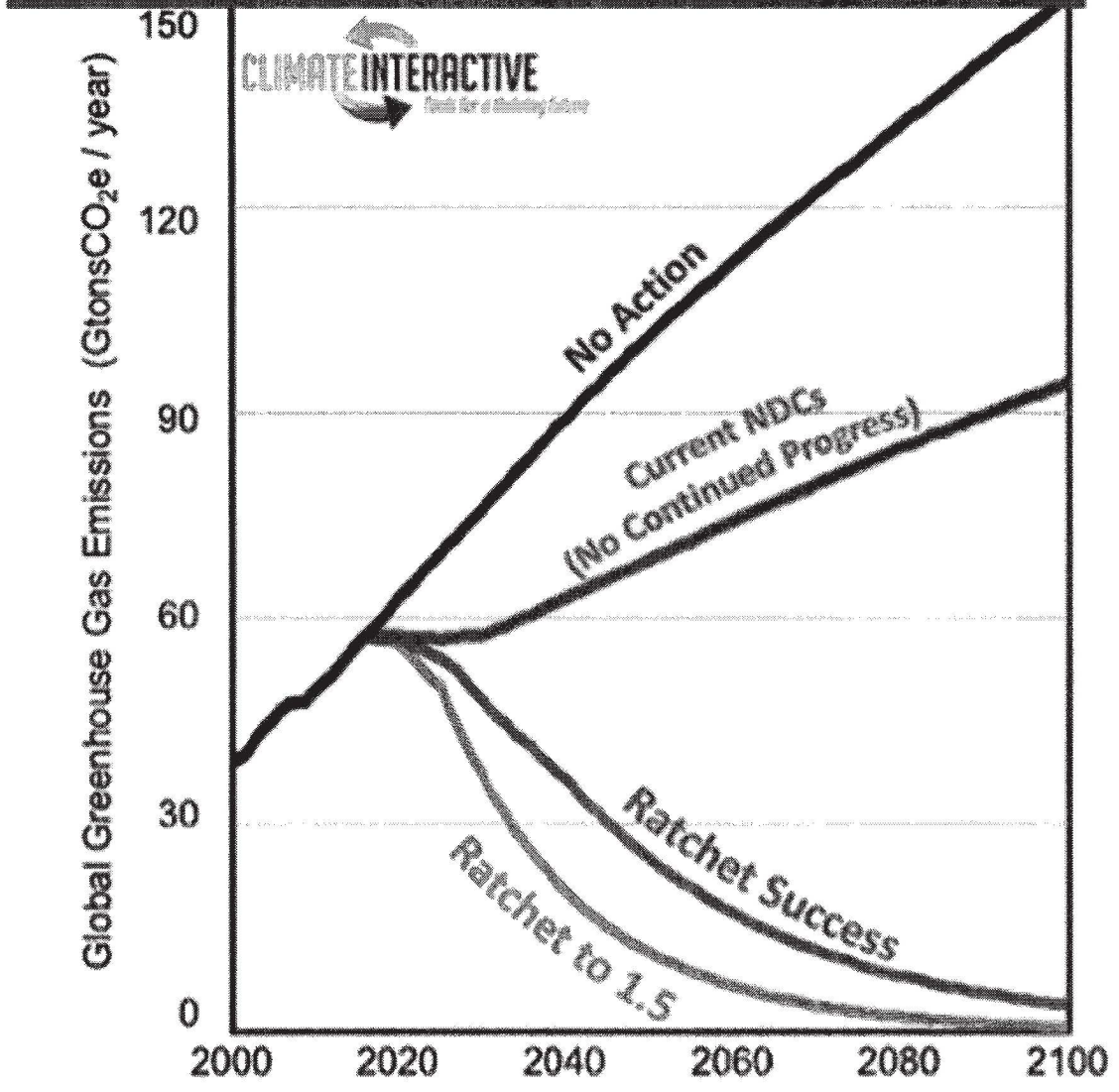
efforts to drive our GHG emissions trajectory down towards what is required for Council's 2050 goal (Figure 2).

Figure 2: Measured and projected GHG emissions to 2050



* measured emissions are based on a City of Toronto specific GHG accounting methodology, projected emissions reflect adoption of the international *GHG Protocol for Cities*

The Paris Climate Agreement



Estimated 2100 temp:

4.5°C
8.1°F

3.5°C
6.3°F

1.8°C
3.2°F

1.5°C
2.7°F

Great Collapse

Great Transition