



What does it mean to be a Net Zero municipality in Canada?

A discussion paper by ICLEI Canada

If you're involved in municipal climate change action in Canada, you've likely been hearing the term 'net zero' more and more often. Sounds ambitious! But what does it actually mean?

At the most basic level, net zero means achieving net zero greenhouse gas (GHG) emissions by balancing GHG emissions with GHG emissions removal. Net zero is often interchanged with the terms climate neutrality or carbon neutrality. It could be achieved by completely eliminating the production of GHG emissions, by completely removing GHG emissions after they have been produced, or by a combination of the two. Net zero energy is a complimentary term that is also used, usually meaning the total amount of energy used is equal to the amount of renewable energy created.

We see net zero aspirations applied at many different levels. For example, a net zero building, a net zero fleet, a net zero company, a net zero municipality, or a net zero country. Yes, in November 2020, the Government of Canada tabled Bill C-12 which sets out the federal government's framework to make Canada a net zero country by 2050.

But back to municipalities. If a municipality sets a net zero target, it is often applied across the entire community, meaning all the GHG emissions generated in the community will be reduced to zero, completely removed after they are generated, or a combination resulting in a net zero balance. Municipalities may also set net zero targets for their municipal corporation, to demonstrate community leadership.

What is driving this trend of municipal net zero targets, sometimes called science-based targets? You can trace this trend back to the [IPCC Special Report of Global Warming of 1.5°C](#), which tells us we have to act urgently to reduce GHGs to 45% by 2030 and achieve net zero by 2050, if we are to successfully limit future climate change. Many organizations around the world are mobilizing to promote actions towards net zero in advance of the November 2021 COP 26 meeting in Glasgow. COP 26 will involve nations updating their Nationally Determined Contributions (NDCs), which describe how they intend to meet the objectives of the Paris Agreement. Municipalities are mobilizing to bolster national action by ramping up their commitments and action to cut GHGs at the scale and pace required by science.



If your municipality has a net zero target, or is considering one, the logical next step is to determine how to track progress against the target. This is the point at which our aspirations have out-paced our current means. Canadian municipalities have a long history of tracking GHG emissions, setting targets and reporting progress against those targets. ICLEI Canada has worked with many of you to do so through the Partners for Climate Protection (PCP) Program. But the commonly established methods of GHG emissions accounting track mainly direct and indirect GHGs from energy use and waste management. We are quite good at measuring the emissions produced in our communities.

But remember, net zero accounting is about that balance of production and removal. And, the removal side of the equation is where our current knowledge and resources are limited. There are no commonly accepted methods for municipalities to quantify the GHGs their activities remove from the atmosphere. How many tonnes of GHGs are stored in the local wetland, urban forest, or agricultural lands? How will we deal with principles related to additionality and permanence? We're seeing many promising practices in these areas, deepening our understanding of how nature-based solutions can advance net zero practice. With more testing and broad application, these insights can lead to the establishment of common accounting methods.

Other questions that remain are: How should we prioritize reducing and avoiding GHGs vs sequestering or offsetting GHGs. And, how will local, regional or international carbon offset activities contribute to municipal net zero targets? There are many pathways towards net zero, each with their own costs and benefits. We simply don't know how we will keep track of the complexity of a municipality's GHG balance.....yet!

Municipal Net Zero targets are raising our ambition levels. They're science-based policy making at its finest, and ICLEI Canada is here for it. We are also just as committed to figuring out how we follow-up our ambitious net zero targets with commonly accepted, measurable, credible and transparent GHG balance tracking practices.

Do you also wonder what it means to be a Net Zero municipality in Canada? Share your thoughts on the matter and stay in touch as we navigate this quickly evolving subject together:

[Net Zero Municipalities Survey](#)

