



A Windfall Centre project

WHITE PAPER – YORK REGION BEEP

WHITE PAPER ON YORK REGION BUSINESS ENERGY AND
EMISSIONS PROFILE

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York Region municipalities are the first outside of British Columbia to utilize a new business community emissions projection tool: [the Business Energy and Emissions Profile, or BEEP](#)ⁱ Commissioned by Windfall Ecology Centre, the BEEP spatially displays energy usage and carbon emissions by industry, business type and business size.

The BEEP addresses a lack of municipal-level data for GHG emissions, which can impede progress on implementing GHG reduction solutions at a regional scale. The BEEP allows community leaders in York Region to quickly identify opportunities to reduce carbon emissions and engage with local businesses.

The BEEP, available as a hardcopy report and an online dashboard tool, is publicly accessible and contains further data on business motivations and strategies for reducing emissions, and case studies highlighting how industry leaders are cost effectively reducing carbon emissions.

Problem: The lack of municipal-level data

Why ineffective data is slowing progress on reducing emissions

With recent international treaties and agreements making substantive headway in tackling climate change, the perception of the environmental movement is that we are well on our way to solving the problem. In reality, the progress is that consensus has been reached regarding the very fact that climate change is real and must be addressed. Implementing solutions remains the difficult part.

Understanding emission sources is the first step in developing effective solutions to reducing them. Greenhouse gas inventories, such as the Canada-wide National Inventory Report (NIR), have reporting requirements and frameworks issued by the 1992 Kyoto Protocol that

show which GHGs must be reported upon and verifiedⁱⁱ. These requirements make compiling a GHG emissions inventory a resource-intensive and challenging activity: common issues that arise include difficulty benchmarking against comparable communities, lack of a comprehensive, cross-industry baseline and an inability to develop more than a “snapshot” into regional emissions due to high costs of continuously updating existing inventories.

There are two types of emissions inventories: top-down and bottom-up. The current favoured approach, top-down, estimates emissions from the national-level and disaggregates on the provincial levelⁱⁱⁱ. This form currently exists in Canada as the NIR. The NIR simplifies reporting and meets international standards, but fails to provide insight beyond the provincial level, save for a handful of high impact facilities.

“Visual tools have the ability to transform voluminous, disparate and technical data into valuable information from which to make thoughtful decisions. The BEEP Dashboard tells a clear and fulsome story whether the user has very little, or a lot of, knowledge about climate and energy issues.”

Allison Ashcroft, City of Victoria

The lack of access to relevant municipal-level data across Canada, stemming from the constraints of developing and sustaining local emissions libraries, slows the ability to enact impactful reductions strategies and removes the ability to credibly report the impacts of implemented reductions strategies on the local level. Canadian municipalities have direct or indirect influence over approximately 44% of national GHG emissions^{iv}. Without local level insights, the validity of a top-down emissions inventory is limited to only measuring the largest measures and failing to account for the community at large.

Solution: The York Region BEEP

York Region's tool for setting baselines, tracking and projecting GHG Emissions

The York Region Business Energy and Emissions Profile, or BEEP, was commissioned by Windfall Ecology Centre to offer local municipalities meaningful insights into regional emissions to aid in the engagement of local business communities. Windfall works directly to engage the business community as part of the ClimateWise Business Program, a target-based sustainability program focused on engaging the business community in a simple, accessible and credible fashion.

The BEEP, an open source and publicly accessible online dashboard, allows for the sorting of emissions projections by industry type, activity, business size and geographic region. This increased division facilitates the development of useful insights for local actors.

The BEEP provides a window into regional emissions information that local leaders can use to identify local opportunities and project their potential impact within the community. This systems-based approach to sustainability has been pioneered in Western Canada, with cities in the Greater Vancouver Area utilizing the data tool to inform strategies that saw simultaneously reductions in emissions and business growth across industry types. The BEEP offers a much-needed tool for municipalities and non-profit actors to better understand emission sources for businesses and determine strategies for engagement when making a transition to a low carbon economy.

York Region Business Energy and Emissions Profile (BEEP) Dashboard



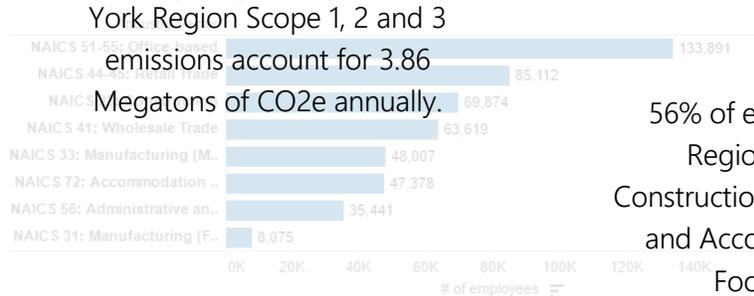
Fig. 1 The York Region Business Energy and Emissions Profile Dashboard offers data for market and regional insights. (Climate Smart Business Inc., 2016)

The BEEP's private sector focus allows municipalities to overcome the issues of resource constraint and scope by facilitating collaboration within the business community, creating a baseline that shifts over time.

The BEEP dashboard offers users visual tools, creating an appealing and simple to interpret data dashboard. The BEEP's accessibility to all community members supports a mandate to empower communities via social innovation and community action. Allowing municipalities to form insights about their business communities furthers the data-driven solutions approach being pioneered in York Region.

Key Insights from the BEEP

Number of local jobs by industry sector



York Region Scope 1, 2 and 3 emissions account for 3.86 Megatons of CO₂e annually.

The BEEP includes approximately 35,000 businesses and 500,000 employees.

Number of businesses by size (employees)



56% of emissions in York Region come from Construction, Wholesale Trade and Accommodation and Food Services.

York Region Scope 1 and Scope 2 emissions account for 2.32 Megatons of CO₂e annually.

The BEEP includes 75% of businesses across York Region.

What the BEEP means for York Region moving forward

Individuals and institutions will now have access to regional-level data projections for business sectors across York Region's nine municipalities. These data sets can be sorted by industry type, business size, geographical location and business activity.

This data will provide an evolving snapshot over time into GHG emissions, which will serve to inform energy/emission reduction projects and business engagement programs across York Region.

The BEEP will serve as the foundation to track and engage the private sector moving forward. Beyond simply reporting data, the emissions projections offer motivations for businesses to take on carbon measurement and reductions initiatives and show successful strategies and case studies of industry leaders cost effectively reducing carbon.

Transitioning to a low carbon economy and meeting the obligations of international agreements requires movement within local communities across the globe. The BEEP provides a solution to the traditional problems facing GHG inventories by creating an open source and accessible system offering simple to interpret data sets from which insights can be drawn that will spur momentum moving forward.

To request a copy of this white paper or for questions or comments, please contact ClimateWise@WindfallCentre.ca or [visit the BEEP Dashboard on ClimateWise's website](#).

References

- ⁱ Climate Smart Business Inc. (2016). York Region beep: business energy and emissions profile. *Prepared for windfall ecology centre*. Aurora, ON.
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