

December 12, 2019

Ministry of Energy, Northern Development and Mines  
77 Grenville, 5th Floor  
Toronto ON M7A 2C1

**Re: Proposed amendment to O.Reg 506/18 (Reporting of Energy Consumption and Water Use) to stop further rollout to buildings under 100,000 ft<sup>2</sup>.**

### General Comments

Buildings account for 21% of total carbon emissions in Ontario<sup>1</sup> and are the largest source of carbon emissions in the Greater Toronto Hamilton Area, accounting for 44% of the region's total emissions.<sup>2</sup> Improving efficiency in buildings is considered one of the most affordable ways to reduce carbon emissions, offering greater opportunities for low-cost carbon reductions relative to other sectors.<sup>3</sup> In fact, most energy efficiency improvements pay for themselves and offer a compelling return on investment for building operators and investors. Energy efficiency investments also generate green jobs, increase tax revenue, and enhance health and comfort for building occupants. The Province has acknowledged this enormous potential by making energy efficiency in buildings the second largest measure in its climate plan, accounting for 18% of the required emission reductions. But achieving this requires supportive policies and programs.

***Ontario's Energy and Water Reporting and Benchmarking (EWRB) initiative is one of the most important policies adopted by the Province to address emissions from buildings.*** The proposed amendments will dramatically reduce the positive impacts of the policy and will compromise Ontario's ability to meet its 2030 climate target. ***We urge the Ministry to reconsider the proposed amendment.***

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<sup>1</sup> Environment and Climate Change Canada, 2018. National Inventory Report 1990-2016: Greenhouse Gas Sources and Sinks in Canada.

<sup>2</sup> The Atmospheric Fund, 2018. 2015 Carbon Emissions in the Greater Toronto and Hamilton Area. [https://taf.ca/wp-content/uploads/2018/09/TAF\\_Emissions-Inventory-Report\\_2018.pdf](https://taf.ca/wp-content/uploads/2018/09/TAF_Emissions-Inventory-Report_2018.pdf)

<sup>3</sup> IPCC, 2007. IPCC Fourth Assessment Report: Climate Change 2007: Synthesis Report. "4.3 Mitigation Options." [https://www.ipcc.ch/site/assets/uploads/2018/02/ar4\\_syr\\_full\\_report.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/ar4_syr_full_report.pdf)

## Benefits of Reporting and Benchmarking

Reporting and benchmarking policies generate significant economic, environmental, and social benefits. Energy use is one of the largest operating expenses in buildings, accounting for one third of typical building operating budgets.<sup>4</sup> Improving energy efficiency simultaneously reduces carbon emissions and building operating costs. As these savings directly translate to lower energy costs, benchmarking would help make Ontario a more affordable place to live and to do business. Further, these policies promote greater transparency about a building's energy performance, which can strengthen protections for consumers and investors, while also enhancing international competitiveness by creating greater incentives to enhance energy productivity.

In the U.S., reporting and benchmarking policies are a well-established practice. New York, San Francisco, and Seattle are among several U.S. cities and states that have adopted mandatory energy reporting requirements in recent years. Between 2010 and 2013, 3,000 of New York City's largest buildings that consistently benchmarked their energy and water use experienced a decrease in emissions by 8% and reductions in energy use by 6%.<sup>5</sup> According to the United States Environmental Protection Agency (EPA), buildings that benchmark their energy use on a regular basis tend to reduce their energy consumption by 2.4 percent per year, on average.<sup>6</sup> Both the EPA and the American Council for an Energy-Efficient Economy suggest that a benchmarking program can save building owners up to 10% at little or no cost.<sup>7</sup>

The reporting of energy consumption and water use is in alignment with the Made-in-Ontario Environment Plan. As part of the Province's efforts to conserve energy in homes and buildings to reduce both costs and emissions, the Plan identifies an action to "increase the availability and accessibility of information on energy and water consumption so that households, businesses and governments understand their energy use." This is exactly what energy and water reporting and benchmarking does.

Achieving Ontario's 2030 targets in the buildings sector will require the development of new policies and programs, along with private sector investment and innovation. Energy and water reporting and benchmarking provides a detailed picture of building energy performance and how it changes geographically, by sector, and over time, providing critical data needed to inform policy and program design as well as investment decisions. These data allow programs, incentives, and financing to be

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<sup>4</sup> Energy Star. Commercial Real Estate: An Overview of Energy Use and Energy Efficiency Opportunities. <https://www.energystar.gov/sites/default/files/buildings/tools/CommercialRealEstate.pdf>

<sup>5</sup> Urban Green Council, 2016. New York City's Energy and Water Use 2013 Report. [http://www.nyc.gov/html/gbee/downloads/pdf/nyc\\_energy\\_water\\_use\\_2013\\_report\\_final.pdf](http://www.nyc.gov/html/gbee/downloads/pdf/nyc_energy_water_use_2013_report_final.pdf)

<sup>6</sup> United States Environmental Protection Agency, 2017. Data Trends: Benchmarking and Energy Savings. [https://www.energystar.gov/sites/default/files/buildings/tools/DataTrends\\_Savings\\_20121002.pdf](https://www.energystar.gov/sites/default/files/buildings/tools/DataTrends_Savings_20121002.pdf)

<sup>7</sup> American Council for an Energy-Efficient Economy, 2014. 2014 ACEEE Summer Study on Energy Efficiency in Buildings. <https://aceee.org/files/proceedings/2014/data/papers/10-795.pdf>



targeted directly at the worst performing buildings, saving the Province time and money while improving results.

## Recommendations

### **1. We urge the Ministry to reconsider the proposed amendment to stop further rollout of the Energy and Water Reporting and Benchmarking program to buildings under 100,000 ft<sup>2</sup>.**

The rationale for the proposed amendment is to reduce compliance costs on businesses by an estimated \$300 per building annually.<sup>8</sup> However, these estimated compliance cost savings are dwarfed by the utility cost savings which would result from extending EWRB to these buildings. Experience from other jurisdictions across North America shows that the average building in this size-class would achieve savings of between \$1000 and \$1500 per building after only one year of benchmarking (Refer to Appendix). In other words, ***rolling back the regulation will result in a net cost increase of between \$700 to \$1200 for the average building.*** But the long-term cost is even greater, as savings resulting from benchmarking compound over time as building operators continue to make data-driven improvements in performance. By 2030, the proposed amendment to limit EWRB will result in foregone utility cost savings averaging between \$16,000 to \$22,000 per annum per building. On a province-wide basis, that means Ontario businesses will be wasting an extra \$137M annually on energy and water bills by 2030 – money that should instead be reinvested to drive economic growth. ***Focusing only on the compliance costs undermines the significant cost saving opportunities for Ontario businesses.***

The proposed amendments would also dramatically reduce carbon reduction potential of the EWRB policy. The amendment would exempt 55% of the buildings that were expected to participate in EWRB. As a result, ***the proposed amendment will increase Ontario's 2030 emissions by between 333 and 453 kilotonnes.***

### **2. If there are barriers inhibiting the rollout of the third phase of the EWRB initiative in 2020, we recommend that the Ministry delay this phase of the program by one year to allow time to address those issues, rather than eliminating it entirely.**

Generally, the benefit of a multi-phase approach, such as this one, is that it allows the industry to plan and prepare for future compliance requirements. Ontario's EWRB regulation was originally adopted in 2017, following several years of stakeholder consultation and engagement. Since that time, TAF and other stakeholders have invested significant resources in building the capacity of the buildings sector to participate in EWRB. Through grants to the City of Toronto and the Canada Green Building Council,

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<sup>8</sup> Based on the Better for People, Smarter for Business Act backgrounder, which estimates a compliance cost reduction \$2.7M across 9000 buildings.



TAF has invested \$392,000 in capacity building for EWRB, mostly geared towards buildings under 100,000 ft<sup>2</sup>. Similarly, the federal government has funded the Ontario Benchmarking Help Centre operated by Windfall Ecology Centre. These free services provide comprehensive assistance and training to building operators to comply with EWRB. Many utilities have already invested in the data management systems required to provide buildings with seamless access to whole building utility data. All of these investments have been made in good faith based on the original regulation adopted by the Province following extensive consultation with stakeholders. Removing the third and final phase of the program would diminish the value of the efforts by various stakeholders, both large and small, across Ontario that have been gearing up to ensure compliance with the program.

We understand that some buildings under 100,000 ft<sup>2</sup> continue to face barriers to participating in EWRB. First, some buildings have difficulty accessing whole building utility consumption data from their local utilities. This difficulty illustrates exactly why the EWRB regulation is so essential. ***The regulation requires utilities to make whole building data available, and if smaller buildings are exempted, this data access challenge will never be resolved.*** On the other end of the spectrum, some building operators are already benchmarking but using software other than Portfolio Manager, and exporting the data into Portfolio Manager requires some time. Both of these barriers are better solved through a one-year delay in compliance for small buildings, instead of an outright exemption.

**3. If the Ministry does amend Ontario Regulation 506/18 to exempt buildings under 100,000 ft<sup>2</sup>, we strongly recommend further amendments to ensure that the utility data access requirements are preserved for this class of buildings.**

The Ministry has stated that smaller buildings would still have the option of voluntary benchmarking. However, if these buildings are exempted from EWRB, the current regulatory framework would also exempt utilities from the requirement to provide these buildings with whole-building utility consumption data. This would create an insurmountable obstacle for many of these buildings to participate in voluntary benchmarking.

As it stands, Section 12. (1) of Ontario Regulation 506/18 states that “any distributor that receives a request from *an owner of a prescribed property who is required to report* under section 25.35.3 of the Act in respect of the property for a calendar year shall provide to the owner such aggregated information as to how much electricity, natural gas or water, as the case may be, was consumed or used at the prescribed property during that year as is available through the existing metering infrastructure, and may make available to the owner information respecting consumption or use before that year.”

If buildings under 100,000 ft<sup>2</sup> are exempted, which we recommend against, the Regulation must be amended to require that distributors provide aggregated information about energy and water use to an owner of a prescribed property who may not be required to report under Section 25.35.3 of the *Electricity Act* but choose to do so voluntarily.

## Conclusion

Ontario's Made-in-Ontario Environment Plan proposes to reduce emissions by 17.6 megatonnes below 2005 levels by 2030. However, the Auditor General's Annual Report on the Environment estimates that the Plan will only reduce emissions by between 6.3 and 13 megatonnes by 2030.<sup>9</sup> To achieve Ontario's emissions reductions targets, the Ministry must preserve evidence-based, cost-effective policies and programs – such as the EWRB – which have the potential to significantly reduce carbon emissions while providing multiple benefits to building owners, consumers, and investors.

We hope that the Province will reconsider its decision to stop further rollout of the EWRB initiative. Ontario will need ambitious and bold climate policies to ensure that we are working towards Ontario's carbon reduction targets. The Ministry has an opportunity to support a key policy that will help advance climate action and put more money in Ontarian's pockets.

Thank you for your consideration in reviewing TAF's comments. Please don't hesitate to contact us directly should you have any questions.

Sincerely yours,



Bryan Purcell  
VP Policy & Programs, The Atmospheric Fund

*The Atmospheric Fund (TAF) is a regional climate agency that invests in low-carbon solutions for the Greater Toronto and Hamilton Area (GTHA) and helps scale them up for broad implementation. Please note that the views expressed in this submission do not necessarily represent those of the City of Toronto or other GTHA stakeholders. We are experienced leaders and collaborate with stakeholders in the private, public and non-profit sectors who have ideas and opportunities for reducing carbon emissions. Supported by endowment funds, we advance the most promising concepts by investing, providing grants, influencing policies and running programs. We're particularly interested in ideas that offer benefits in addition to carbon reduction such as improving people's health, creating local jobs, boosting urban resiliency, and contributing to a fair society.*

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<sup>9</sup> Office of the Auditor General of Ontario, 2019. 2019 Annual Report Volume 2: Reports on the Environment. [http://www.auditor.on.ca/en/content/annualreports/arreports/en19/2019AR\\_v2\\_en\\_web.pdf](http://www.auditor.on.ca/en/content/annualreports/arreports/en19/2019AR_v2_en_web.pdf)

## APPENDIX: IMPLICATIONS OF PROPOSED AMENDMENT TO EWRB ON CARBON EMISSIONS AND UTILITY COST SAVINGS

### Summary

Removing buildings between 50,000 and 100,000 ft<sup>2</sup> from the EWRB program will prevent the province from achieving significant greenhouse gas (GHG) emissions reductions. The estimated cumulative carbon reduction potential of including these buildings over the next 20 years range between 6.1 and 8.2 MtCO<sub>2</sub>eq. The annual emissions reduction once the program achieves its maximum potential range between 548,000 and 727,000 tCO<sub>2</sub>eq/year. Annual energy related cost saving starts between \$1,000 and \$1,500 CAD per building in 2020 achieving between \$24,500 and \$32,600 CAD per building in 2039. Cumulative energy related cost saving account for between \$291,000 and \$393,000 CAD per building in the period 2020-2039.

### Variables

**Annual reductions related to benchmarking:** A 2.4% peak reduction of annual building emissions is applied based on reviewed literature. In the model, this value is achieved in year 3 of the initiative. After that, the annual reduction factor decreases by 10% each year and the cumulative reduction is capped at 20% of building emissions.

**Compliance with reporting to the EWRB initiative:** The compliance is modelled to start at 56% of buildings covered by the legislation reporting in year 1 of the initiative (2020), increasing an additional 1.5% per year. The emissions reduction is capped at 85% of the buildings, considering that there are buildings that won't take any measures even if they report to the program, and other buildings are already part of other conservation awareness programs and the EWRB won't imply additional GHG reductions.

**Increase in number of buildings:** A growth factor in the number of buildings is applied in correlation with the forecasted population increase, the potential emissions reduction for new buildings are capped at half of the existing buildings, considering that the compliance with progressively stricter building codes already capture part of the GHG saving opportunities that benchmarking could provide.

**Total emissions of buildings between 50,000 and 100,000 ft<sup>2</sup> in Ontario:** The total emissions are modelled both with a bottom-up and a top-down approach, in order to obtain a range of potential emissions reduction avoiding the uncertainty related to use only one methodology. Emissions from buildings between 50,000 and 100,000 ft<sup>2</sup> account for approximately 10% of building emissions in Ontario.

**Emissions reductions:** The increase in energy efficiency is considered as directly correlated with GHG emissions reduction (same proportional reduction in electricity and NG), although the potential of

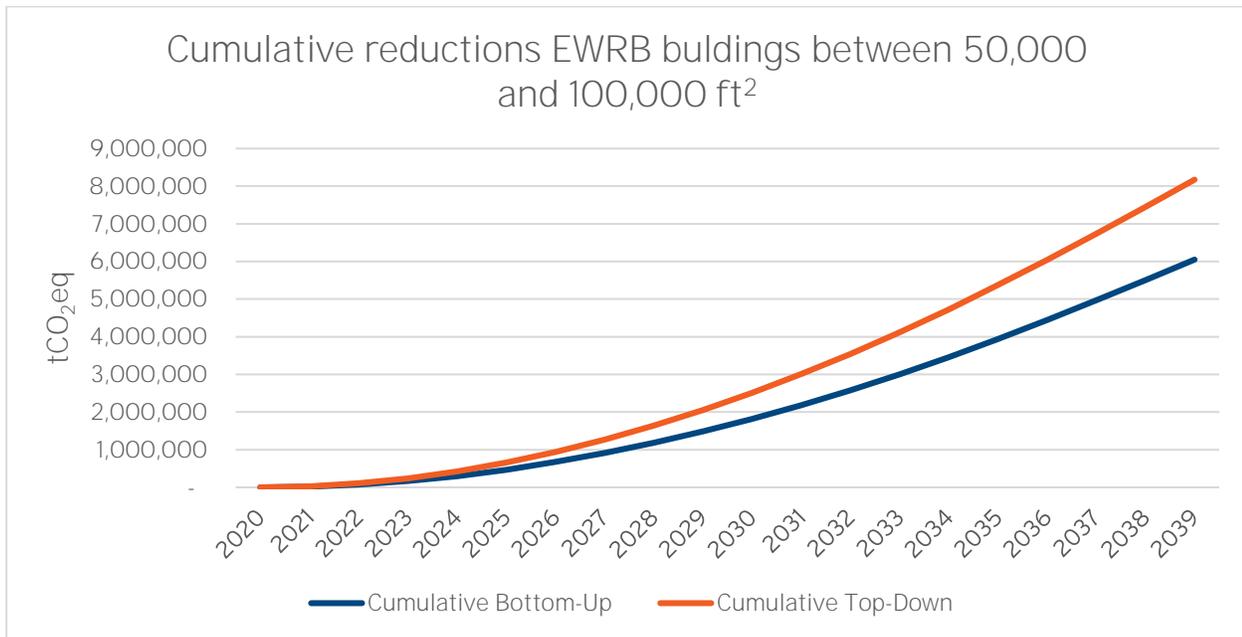
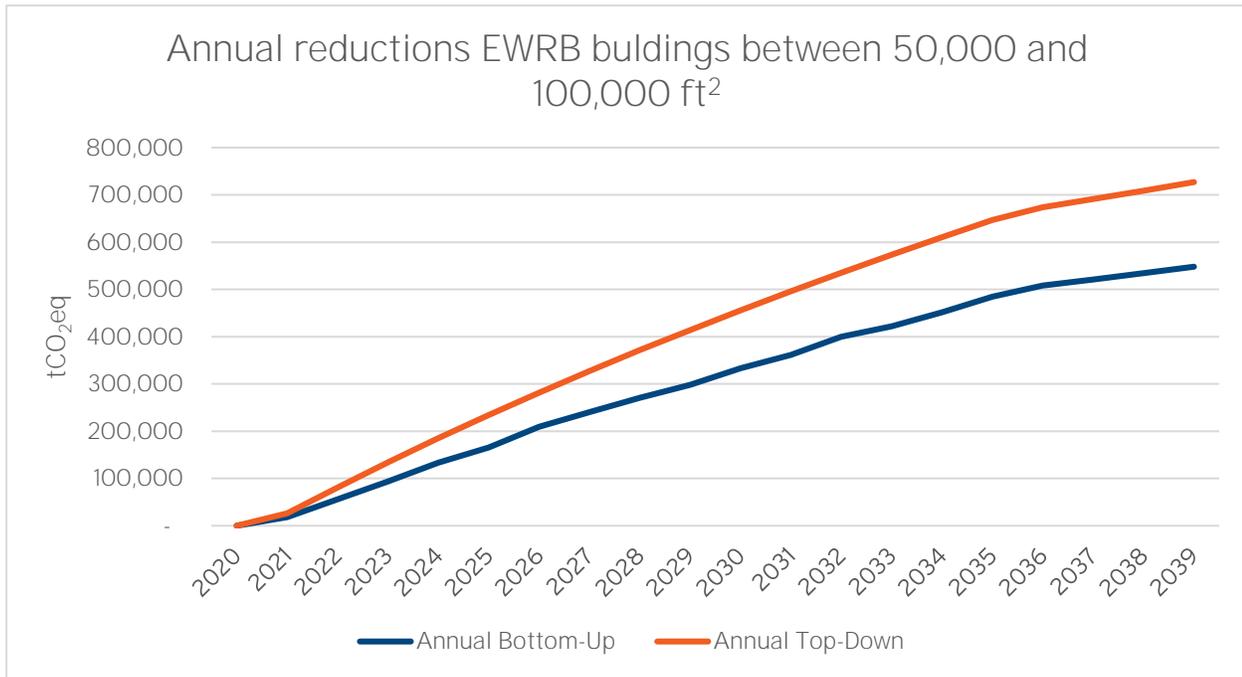
measures that reduce electricity consumption is not as significant as the ones that reduces natural gas consumption.

**Energy cost savings:** To estimate the energy cost savings, the electricity price has been modelled with a 3.5% annual inflation. Natural gas price includes the projected carbon price up to 2022 (50 CAD/T CO<sub>2e</sub>). The proportion of natural gas and electricity in energy savings is the same applied to emissions reductions. The energy savings don't account for the investment needed to achieve part of those savings (retrofits, etc.), only the cost of energy saved.

## Analysis

Year	Annual GHG reductions (TCO <sub>2e</sub> )		Annual costs savings (CAD)		Annual costs savings per building (CAD)	
	Bottom-Up	Top-Down	Bottom-Up	Top-Down	Bottom-Up	Top-Down
2020	-	-	-	-	-	-
2021	18,079	26,135	6,258,776	9,047,386	1,057	1,527
2022	56,038	81,021	20,317,762	29,375,975	3,298	4,768
2023	93,349	133,872	34,332,566	49,236,302	5,362	7,689
2024	133,216	184,797	49,063,936	68,061,196	7,377	10,233
2025	165,456	233,900	62,729,527	88,678,447	9,085	12,843
2026	209,617	281,288	78,826,897	105,778,779	11,002	14,764
2027	240,080	327,066	92,817,530	126,447,148	12,492	17,018
2028	270,760	371,336	107,166,115	146,973,754	13,914	19,082
2029	298,340	414,199	121,275,663	168,372,704	15,197	21,099
2030	333,170	455,753	137,163,737	187,629,820	16,597	22,703
2031	361,594	496,090	152,230,570	208,853,275	17,794	24,413
2032	399,999	535,302	169,725,026	227,136,319	19,173	25,658
2033	422,007	573,477	184,430,609	250,627,750	20,142	27,371
2034	451,959	610,696	201,230,687	271,906,644	21,255	28,720
2035	484,854	647,040	219,195,871	292,517,785	22,400	29,893
2036	507,935	673,871	234,042,057	310,500,609	23,149	30,711
2037	521,133	691,381	245,575,567	325,801,969	23,516	31,199
2038	534,493	709,105	257,658,905	341,832,779	23,896	31,703
2039	548,016	727,045	270,319,833	358,629,870	24,574	32,602
<b>Total</b>	<b>6,050,096</b>	<b>8,173,372</b>	<b>2,644,361,634</b>	<b>3,567,408,510</b>	<b>291,278</b>	<b>393,996</b>

## Projected carbon emissions reductions



## Projected energy-related cost savings

