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The Regional Municipality of Durham Report

To:	Committee of the Whole
From:	Chief Administrative Officer
Report:	#2023-COW-16
Date:	April 12, 2023

Subject:

Proposed Durham Greener Buildings Program

Recommendation:

That the Committee of the Whole recommends to Regional Council:

A) That Regional Council endorse the Durham Greener Buildings Program with an estimated 2023 cost of $150,000 as described in this report, to be funded through the 2023 Office of the Chief Administrative Officer Business Plans and Budget;

B) That staff be authorized to negotiate and award a single source agreement with the Windfall Ecology Centre to deliver the Durham Greener Buildings program for a period of three years (2023-2026);

C) That the Commissioner of Finance or designate be authorized to execute the necessary documents related to this single source agreement and any ancillary agreements in forms satisfactory to the Regional Solicitor and Commissioner of Finance, to support joint implementation of the Program, as required;

D) That Regional Council provide a letter of support to the Windfall Ecology Centre for their funding application to the federal Deep Retrofit Accelerator Initiative (DRAI) to enable enhancements to the proposed Durham Greener Buildings program that will aim to facilitate deep energy retrofits of commercial, multi-unit residential, and institutional buildings; and

E) This report and associated resolution(s) be forwarded to local area municipalities, the Ontario Ministry of Municipal Affairs and Housing, the Ontario Ministry of Energy, Natural Resources Canada, and the Federation of Canadian Municipalities for information.

Report:

1. Purpose

1.1 This report seeks Council endorsement of the proposed Durham Greener Buildings Program (the 'Program'), which is designed as a comprehensive voluntary energy benchmarking and disclosure program to help owners and managers of commercial, multi-unit residential, and institutional buildings gain insights into energy and water consumption, how it compares to similar buildings, and build capacity for energy retrofits in the existing building sector.

2. Background

2.1 The Council-endorsed Durham Community Energy Plan (DCEP) outlines the Region's ambitious strategy to reduce greenhouse gas (GHG) emissions and facilitate the transition towards a clean energy economy. Through the DCEP development process, a low carbon pathway was developed which calls for deep retrofits across all existing buildings in the Region as a key strategy to reduce GHG emissions.

2.2 Council endorsement of the Durham Greener Homes program, which is designed as a comprehensive voluntary residential retrofit program to support Durham Region homeowners undertaking energy conservation improvements on their property, was a critical first step in achieving emissions reductions in the Region's single family housing stock. However, there currently exists a gap in providing support for larger commercial, multi-unit residential and institutional buildings to unlock deep energy retrofits. The Durham Greener Buildings programs therefore aims to address this gap and responds to the one of the priority recommendations in the DCEP.

2.3 The Durham Greener Buildings program will also support building owners and managers in complying with the Province of Ontario's Energy and Water Reporting and Benchmarking (EWRB) Initiative, which requires most owners of building types that are over 100,000 square feet and larger to report their building's energy and water consumption annually to the province. However, compliance rates with this regulation are estimated to be relatively low to-date among buildings in Durham covered by the regulation (estimated at less than 35 per cent) and as such, the Program will be designed with an aim to increase regulatory compliance, as well as encourage voluntary reporting of energy and water usage data.

2.4 Since most institutional (including municipally-owned) buildings are required to report to the province under the Electricity Act, they are not required to report under the EWRB regulation. However, to demonstrate community leadership on climate action, program implementation will also focus on the benchmarking and disclosure of energy and water usage data of municipally owned, and other broader public sector buildings.

2.5 The federal government's Green Buildings Strategy targets a net-zero emissions and climate-resilient buildings sector by 2050, with an interim goal of 37 per cent emissions reduction from 2005 levels by 2030. To achieve this ambitious target, the Strategy highlights deep energy retrofits as a significant emissions reduction opportunity but warns that retrofits being undertaken are not going far enough in terms of emissions reduction and increased efficiency. It therefore calls for transformative and innovative programs and investments towards deep decarbonization.

2.6 The federal government's Deep Retrofit Accelerator Initiative (DRAI) provides a unique opportunity to facilitate deep energy building retrofits and enhance the Region's proposed program. It provides a non-repayable contribution for projects that identify and/or aggregate deep retrofit projects, guides building owners in the process of implementing retrofit projects, identifies available funding and financing to support retrofits, and conducts capacity building activities, such as developing novel approaches to deep retrofits. The DRAI initiative will thus provide additional support to enable program enhancements to mobilize deep energy building retrofits and align with federal emission reduction targets.

3. Program Design Approach

3.1 The approved 2023 Business Plans and Budget includes $150,000 for the implementation of a Region-wide energy benchmarking and disclosure program, including the development of the conceptual program design and engagement with key stakeholders. Over the past seven months, Regional staff undertook research and analysis to develop a conceptual program design model. Key program design phase activities included:

a. Cross-jurisdictional program analysis: review of mandatory and voluntary energy benchmarking programs across North America to evaluate main characteristics, identify best practices and success factors, draw on lessons learned, and identify challenges and opportunities to inform program design. Through detailed research and interviews with energy benchmarking experts across North America, the following advantages of a benchmarking program were identified:

- enables building owners to benchmark their energy data and share best practices on energy conservation;
- creates opportunities to optimize building operations and maintenance practices;
- facilitates building energy efficiency improvements to generate savings;
- helps stimulate market transformation and uptake of energy efficiency technologies; and
- prepares industry stakeholders and local governments with future energy benchmarking policies, and

- helps achieve corporate and community environmental sustainability goals.

b. Market characterization: primary market research analysis was conducted to gather available data on the building stock in the Region including location, size, and ownership of buildings that fall within the provincial EWRB reporting requirements to understand the market potential for the program. This process involved identifying key groups to target based on Class and building archetypes (commercial, multi-unit residential, social housing, etc.) to optimize program delivery and maximize program uptake. This helped identify predominant building types which offer the greatest GHG emissions reduction potential and provide an indication of the market potential for the program.

c. Interviews with program partners and stakeholders: the program was developed in collaboration with local area municipalities and involved consultation with key building industry stakeholders and utility companies (OPUC and Elexicon) to gather input, highlight key considerations, and identify challenges and opportunities. Feedback was incorporated into a revised program model to ensure effective program implementation. An engagement summary is provided below, with further details included in Attachment #1 to this report.

Summary of engagement:

- **Program benefits/ advantages**: increased transparency and accountability around energy usage/ consumption, easier building comparisons, supports operational energy and water efficiency tracking, market development for energy retrofits.
- **Appropriate incentives**: stakeholders expressed interest in awards events for public recognition, marketing tools, information to support capital spending and asset management, and deployment of incentives through Green Development Standards.
- **Appropriate support**: capacity and staff resources to support the program, leveraging Energy Star Portfolio Manager (ESPM), and encouragement where Durham Region leases.
- **Potential challenges**: fear/hesitation around public disclosure, uncertainty with too many reporting programs, difficulty with program marketing and identifying contact(s).

4. Program Summary

4.1 At full implementation, the program will be available Region-wide and will be designed to increase awareness among key building industry stakeholders (e.g., building owners, managers, and tenants) with an aim to create demand for energy efficiency improvements. The Region envisions this building benchmarking and disclosure support program as a first step in the development of a comprehensive platform to mobilize deep energy retrofits in commercial, institutional, and multi-unit residential buildings, which will be subject to further Council approvals. The Program will complement and expand on the Durham Greener Homes program, which is primarily focused on enabling deep energy retrofits in the Region's single family housing stock. The Program will feature the following elements which would be phased over a three-year period (a more detailed timeline is provided below in Section 4.6):

a. Help Desk and training support services to build familiarity with ESPM and energy benchmarking;

b. Building Challenge website with energy efficiency tools and resources;

c. Peer-to-peer business network focused on building capacity around deep energy retrofits; and

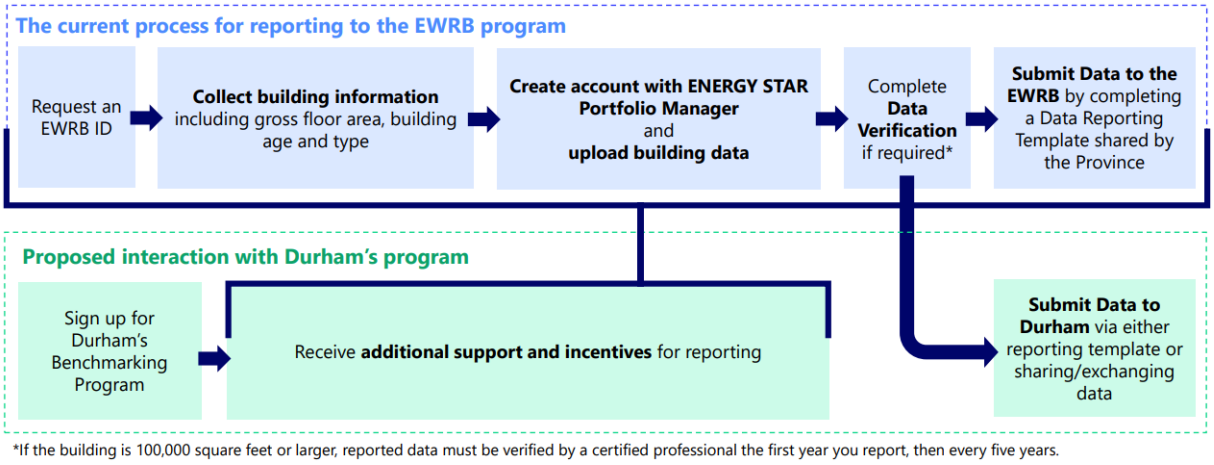
d. Annual Region-wide energy benchmarking community building challenge or recognition event to celebrate buildings that have made strides towards improving their energy efficiency and reduce energy consumption.

4.2 Staff propose that Windfall Ecology Centre be engaged through a single source agreement to implement the program features outlined below. Windfall Ecology Centre was selected to deliver the Durham Greener Homes program through a competitive procurement process conducted in 2021. Given the anticipated interoperability between the Durham Greener Homes program, and Durham Greener Buildings program, as well as Windfall Ecology Centre's past and current experience with programs of a similar nature – including the Ontario Benchmarking Help Centre, and the ClimateWise Building Challenge in York Region. a single source agreement would avoid significant inconvenience and duplication of costs.

4.3 Program implementation will initially focus on benchmarking and disclosing energy and water usage data of municipally-owned buildings to demonstrate community leadership to the broader community on acting on climate change. The program targets a 70 per cent compliance rate or 600 buildings from the broader public sector (BPS) over a three-year implementation period across the Region (2023-2026). This will require support from local area municipalities in streamlining data collection and facilitating program outreach. The program will subsequently target building owners of commercial, multi-unit residential and institutional buildings and target an EWRB compliance rate of 70 per cent or 450 commercial buildings in sharing data through participation in the program (over a three-year period).

4.4 Figure 1 below provides an overview of how building owners would interact with the program elements:

Figure 1: Durham Energy Benchmarking Program Overview



*If the building is 100,000 square feet or larger, reported data must be verified by a certified professional the first year you report, then every five years.

4.5 The program will help address challenges around building retrofits, namely arduous data collection requirements and the lack of a standardized, one-size-fits-all approach which creates uncertainty around implementing energy retrofits and identifying suitable energy efficiency measures. The program will therefore build understanding of energy/ emissions at the whole building level and help inform decision-making to support building energy retrofits.

4.6 Program implementation will be conducted over a three-year period and will focus on improving energy efficiency in buildings across the Region. In the pre-launch phase, the Region will finalize contracts with a partner organization and establish working groups, develop communication and engagement strategies, and establish budgets for key deliverables. The timeline and key deliverables for successive years is provided below:

a. **Year one** will involve the launch of the Building Challenge, outreach to commercial buildings, engagement with municipalities and educational facilities, and the promotion of a peer-to-peer business network;

b. **Year two** will focus on program evaluation and modification, continued outreach and communication efforts, and recruitment for the business network; and

c. **Year three** will be similar, with additional meetings for the business network and data requests.

5. Program Enhancement – Durham Building Retrofit Accelerator

5.1 Layered on to the Durham Greener Homes (DGH) Program's retrofit concierge service model and building on the energy benchmarking program, the Durham

Greener Buildings Program would be designed to mobilize deep energy retrofits of institutional, multi-unit residential, and commercial buildings.

5.2 This additional retrofit accelerator service will require funding beyond what is included in the Council-approved climate change operating budget. As such, Regional staff are proposing to work with Windfall Ecology Centre to develop a funding application to the federal government's Deep Retrofit Accelerator Initiative (DRAI) to seek additional support to enable program enhancements which includes potential program activities listed below:

a. Support building energy labelling and compliance;

b. Hands-on energy coaching;

c. Providing ASHRAE-level energy audits;

d. Broaden capacity building activities; and

e. Financing options to support deep energy retrofits.

5.3 Implementation of these activities through DRAI is envisioned to happen concurrent with the energy benchmarking and disclosure aspects of the program that are described in section 4 of this report. Implementation will require a mix of partners that must come together for large-scale retrofits including municipalities, architects, contractors, community organizations, investors, and manufacturers. To achieve new levels of performance, the initiative requires insights from new disciplines and sectors, such as data science, logistics, and marketing. Given Windfall Ecology Centre's experience in administering the Durham Greener Homes program and its relevant skill set, technical resources, capacity, access to data, and familiarity with local builders, energy advisors, and contractors, Windfall Ecology Centre is uniquely positioned to bring these actors together and support Durham Greener Buildings program implementation alongside Durham Greener Homes.

6. Financial Implications

6.1 The total estimated Regional cost of this program is $450,000 over three years (2023-2026). The approved 2023 Office of the Chief Administrative Officer includes $150,000 for this program, and a similar will be budgeted annually subject to Council approval through the Annual Business Planning and Budgets process.

6.2 As per Appendix C of the Purchasing By-law (#16-2020), single source purchases are permitted if additional deliveries by the original supplier for goods/services not included in initial procurement if a change of supplier cannot be made due to interchangeability/interoperability with existing goods/services from initial procurement and would cause significant inconvenience or substantial duplication of costs. With Council approval of the recommendations in this report, Regional staff will negotiate a single source agreement with the Windfall Ecology Centre with

terms and conditions satisfactory to the Regional Solicitor and Commissioner of Finance.

6.3 Additional funding through the DRAI application, if successful, will be used to support the development of a retrofit accelerator program enhancement.

6.4 In the case that the Windfall Ecology Centre is not successful in securing DRAI grant funding, the project team will explore alternate funding opportunities to support program enhancements.

7. Next Steps

7.1 The Program has been designed with insights from local market research, focus groups, comprehensive research and analysis of energy benchmarking and disclosure programs across North America. Program development also involved consultations with key stakeholders including local area municipalities, local energy utilities, building industry representatives, and energy efficiency experts. Discussion with local utilities involved exploring potential opportunities and/ or synergies to support alignment with complimentary utility programs.

7.2 Staff propose to collaborate with Windfall in developing program enhancement activities, explore potential partnerships to develop a local/ regional building retrofit accelerator to support program implementation, and collaborate with third-party financing partners to create pipeline of building retrofit projects. The DRAI funding will enable enhancement of the Program and help build a retrofit economy around commercial, multi-unit residential and institutional buildings in Durham Region through actions that support deep decarbonization. This will support implementation of the DCEP and reduce GHG emissions in the building sector.

7.3 Key next steps for program implementation include:

a. Regional Council endorsement of program concept;

b. Regional Council support to provide a Letter of Support to Windfall Ecology Centre and relevant organizations seeking DRAI funding to enable program enhancements and facilitate deep energy retrofits of commercial and institutional buildings; and

c. Negotiation of supporting agreements with partners relating to program implementation.

7.4 For additional information, contact: Nayel Halim, Policy Advisor – Sustainability, at 905-668-7711, extension 3803 or Ian McVey, Sustainability Manager, at 905-668-7711, extension 3803.

7.5 Approved by Sandra Austin, Executive Director Strategic Initiatives, 905-668-7711, extension 2449.

8. Relationship to Strategic Plan

8.1 This report aligns with the following strategic goals and priorities in the Durham Region Strategic Plan:

a. Goal #1 – Environmental Sustainability

- Accelerate the adoption of green technologies and clean energy solutions through strategic partnerships and investment; and
- Demonstrate leadership in sustainability and addressing climate change.

9. Attachment

9.1 Attachment #1: Energy Benchmarking Program Final Report and Engagement Summary

Respectfully submitted,

Original signed by

Sandra Austin
Executive Director, Strategic Initiatives

Original signed by

Elaine C. Baxter-Trahair
Chief Administrative Officer

Introba

FINAL REPORT

Durham Region Benchmarking Program

Last updated: March 17, 2023

Contents

Introba

SECTION 1

Introduction

1. Introduction

CONTEXT

On January 29, 2020, Durham Regional Council voted to declare a climate emergency. To act on this direction, Region of Durham is implementing programs to:

- Build more resilient infrastructures, communities, and natural systems to reduce the impacts of climate change, and
- Reduce greenhouse gas emissions and strive to be a carbon neutral community.

The Durham Community Energy Plan calls for deep energy retrofits across all existing buildings in the Region as a key strategy to reduce GHG emissions and transition to a clean energy economy. In April 2022 the Region launched Durham Greener Homes, a deep energy retrofit program focused on the residential sector and single-family homes and is now interested in taking steps to enable emissions reductions in other segments of the building sector – including commercial, institutional and multi-unit residential buildings. The Region understands that **building energy benchmarking** is a key first step to improving GHG performance in the building sector.

Durham Greener Homes

1. Introduction

PROJECT SCOPE

Durham engaged Introba to support the development of a building energy benchmarking program for commercial, institutional and multi-unit residential buildings across the Region.

Project steps included the following:

- Understanding the benchmarking landscape in Ontario
- A best practice review of other benchmarking programs
- Characterization of Durham's building stock and exploration of target markets
- Drafting a program structure
- Stakeholder engagement to solicit feedback on the draft program structure, further understanding the potential value and ideal nature of an energy benchmarking program in the Durham Region, as well as the barriers to (and means of encouraging) participation
- Providing final recommendations for program design and implementation

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SECTION 2

The Benchmarking Landscape

2. The Benchmarking Landscape

WHAT IS BUILDING ENERGY BENCHMARKING?

Energy benchmarking is the process of measuring and tracking a building's energy performance over time and comparing the data with peers. Benchmarking programs often include **disclosure**, the process of making benchmarking data available and/or visible to a range of stakeholders, including local governments, peers, and the public.

While benchmarking is simply the process of understanding performance, studies have shown that benchmarking and disclosure drive action and yield **cumulative average energy savings of 7% to 14% over 4-5 years.**

2. The Benchmarking Landscape

BENEFITS OF BENCHMARKING PROGRAMS	....TO OWNERS	...TO DURHAM
• You can't manage what you don't measure. Benchmarking encourages owners to understand energy and emissions performance at the whole building level.	✓	✓
• Understand how a building compares to other similar buildings.	✓	✓
• Identify opportunities for operational efficiency improvements and retrofits, reducing costs and energy use.	✓	✓
• Demonstrate leadership and differentiate themselves from competitors.	✓	
• Attract and retain investors/prospective tenants who value transparency and responsible management.	✓	
• Help achieve corporate and community environmental goals.	✓	✓
• Provide data that can be used to help identify the sectors and building types most in need of support		✓
• Inform program and policy design for reducing GHGs in the building sector.		✓

Durham is also a building owner!

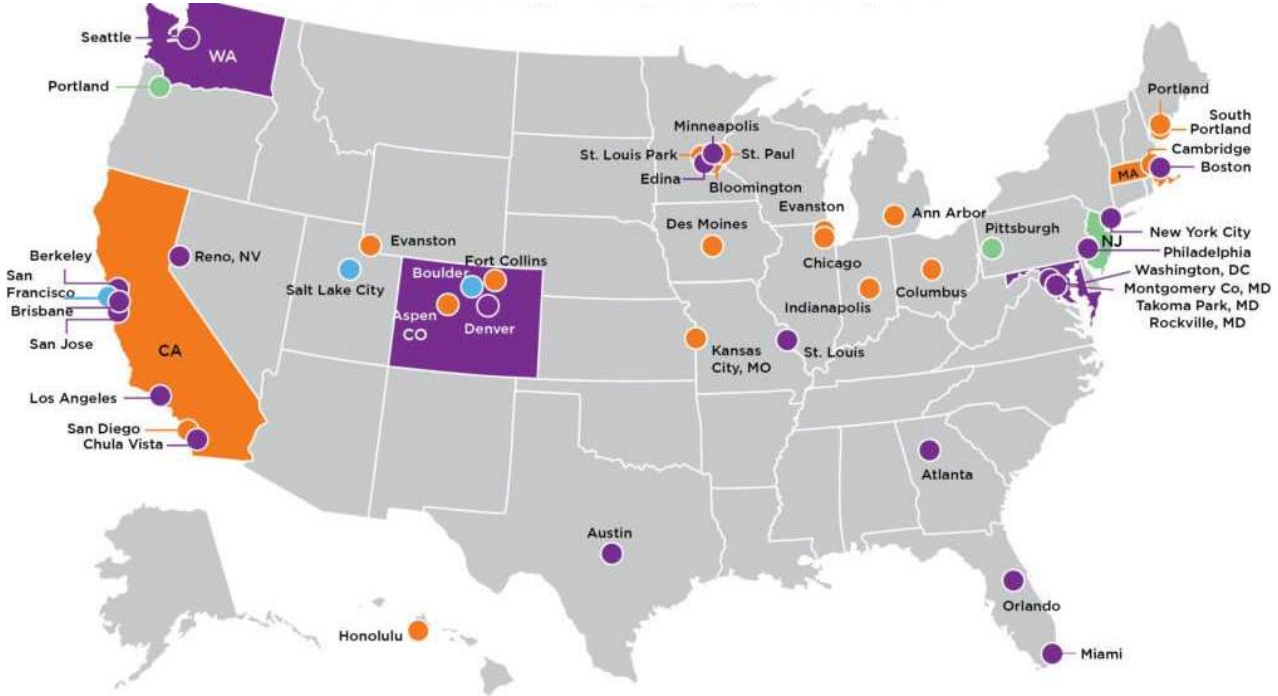
2. The Benchmarking Landscape

BENCHMARKING ACROSS NORTH AMERICA

There is increasing momentum in benchmarking programs and policies across North America, targeting public, commercial and multifamily buildings with mandatory of voluntary requirements. The programs and policies are summarized in the maps below, courtesy of the *Institute for Market Transformation*.

Canadian programs and policies for benchmarking.

US programs and policies for benchmarking.



Benchmarking required for public and commercial buildings

Benchmarking required for public, commercial, and multifamily buildings

Benchmarking and additional actions required for public, commercial, and multifamily buildings

Voluntary programs and commitments

Building Performance Standard

2. The Benchmarking Landscape

THE LANDSCAPE IN ONTARIO – EWRB

Ontario is the only province in Canada that currently requires building energy benchmarking. Under the Reporting of Energy Consumption and Water Use regulation, large building owners in Ontario are required to report their building's energy and water use once a year (by July 1st of each year, for the previous year of data) to the Ministry of Energy through the **Energy and Water Reporting and Benchmarking** (EWRB) program.

The EWRB currently applies to commercial, residential, and industrial buildings over 100,000 square feet. From July 1, 2023, the EWRB will scale down to cover a larger number of buildings, namely those buildings over 50,000 square feet.

2. The Benchmarking Landscape

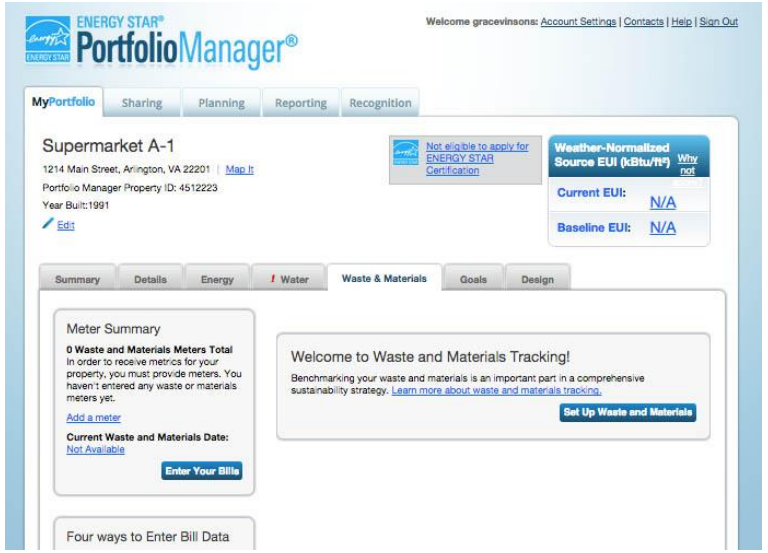
THE LANDSCAPE IN ONTARIO – EWRB (CONTINUED)

The EWRB makes use of Energy Star Portfolio Manager (ESMP), **a free online data collection and energy benchmarking platform** administered by the U.S. Environmental Protection Agency and licensed to Natural Resources. It is widely used across North America and represents the industry standard for building energy data management. It can be used to benchmark the performance of one building or a whole portfolio of buildings.

ESPM allows a building owner/manager to upload data in a variety of ways: manually, using import and export functions in Excel, or by a direct link to the utility provider.

The building information and performance data can then be reported to/shared with anyone that the building owner/manager wishes (e.g., a jurisdiction running a benchmarking program). Methods of reporting and sharing are explored further on in the program recommendations.

ENERGY STAR® Portfolio Manager®



2. The Benchmarking Landscape

THE LANDSCAPE IN ONTARIO – EWRB (CONTINUED)

How does it work?

To comply with the EWRB, owners (or a designated reporting lead) must:

1. Request an EWRB ID
2. Collect building information, including gross floor area, building age and type, utility data and any building certifications
3. Create an account with Energy Star Portfolio Manager and upload building Information and EWRB ID
4. For buildings over 100,000 square feet, verify data using a certified professional the first year information is reported, and every five years thereafter (this is voluntary for buildings less than 100,000 square feet)
5. Run the Portfolio Manager *Data Quality Checker*
6. Submit a report using a reporting link provided by the EWRB

What support is available?

The Province currently provides:

- ❑ An Online Guide
- ❑ A Reporting Checklist
- ❑ A Portfolio Manager Guide
- ❑ Support via email or phone. This is primarily for administrative aspects of the EWRB, rather than technical aspects of reporting.
- ❑ Links to resources on ESPM from NRCan

Some jurisdictions in Ontario provide extra resources to their building owners to support with reporting to EWRB. For example, the City of Toronto offers one-on-one support and has their own EWRB Guide.

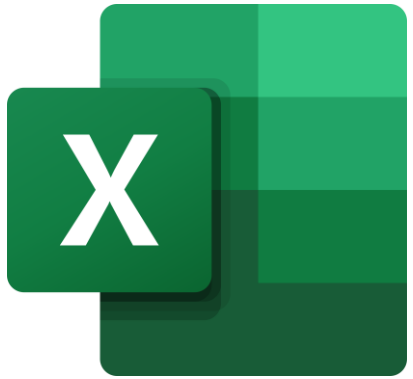
2. The Benchmarking Landscape

THE LANDSCAPE IN ONTARIO – THE BROADER PUBLIC SECTOR (BPS) ACCOUNTABILITY ACT

Under Ontario's Broader Public Sector Accountability Act all broader public sector buildings are also required to report building information and performance data to the Province.

683 buildings in Durham are currently reporting under the Broader Public Sector Accountability Act. These buildings are not required to report to the EWRB via Energy Star Portfolio Manager, but rather only expected to input building performance data on an excel saved on a SharePoint.

The Province of Ontario has signaled an intention to update this reporting process to require public sector building owners to submit data through Energy Star Portfolio Manager - the same reporting mechanism used in the EWRB. This is a welcome change as it will streamline the requirement overall and help to build a larger and more comprehensive set of building performance data across the province.



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2. The Benchmarking Landscape

UTILITY DATA SHARING

Utility data access for benchmarking has two components, both of which are critical to program success:

1. **Aggregation of data:** upon request from an owner, the utility aggregates data from all meters in the building by month and shares the aggregate totals. By aggregating the data, privacy is protected. Under Ontario's Reporting of Energy Consumption and Water Use regulation, utilities are required to provide building owners (those who are covered under this regulation) aggregated monthly data.
2. **Direct, automated upload of data to Portfolio Manager:** Using the Portfolio Manager *exchange data* web services, utilities can directly upload consumption information to a Portfolio Manager account with the user and customer's permission. This can be done for individual meters, but also can be done for aggregated whole building data. Direct upload eases regular reporting and compliance and allows Portfolio Manager to continuously update benchmarking results and serve as a data tracking tool.

Ontario's New Energy Data Regulation requires electric and natural gas utilities province-wide to implement **Green Button *Connect My Data* Standard**, which provides residential and business energy customers with more choice in they access electricity or natural gas usage data (including accessing interval-level electricity data).

Portfolio Manager does not itself interface with Green Button, but it does make it easier to connect utility systems with third party tools that do support Portfolio Manager upload.

2. The Benchmarking Landscape

WHY DOES DURHAM NEED A BENCHMARKING PROGRAM?

The EWRB lacks two main components to make it successful: targeted support for building owners, and enforcement for compliance. In fact, **in 2021 only 31% of covered buildings (i.e. those buildings required to report to the EWRB) in Durham Region reported to EWRB.**

US jurisdictions that have benchmarking programs have achieved 60-70% compliance simply by adding more support for building owners. This level of compliance would yield a more representative dataset that Durham Region can use to help better understand the overall performance of the building sector and identify areas where improvements supported through additional policy or program design would yield the greatest energy and emissions savings. By gaining a better understanding of these opportunities, Durham will be able to offer targeted support to those buildings and sectors that can best contribute to meeting the region's overall emissions reduction targets.

The goal of this project is to therefore design a regional benchmarking support program to:

- ✓ Increase compliance with the Province of Ontario's EWRB program, especially as it expands to cover buildings 50,000 to 100,000 square feet in size.
- ✓ Encourage voluntary benchmarking and reporting for buildings under 50,000 square feet to further support building sector emissions reductions

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SECTION 3

Best Practices in Benchmarking Programs

3. Best Practice Review

APPROACH

A selection of the programs across North America was reviewed to inform the design of Durham's program.

General information on these programs was obtained through desktop research, as well as building on prior research and interviews conducted by Introba.

Interviews were then conducted with to get further insights on best practices and lessons learned from their programs - these were primarily jurisdictions with voluntary programs as they are most applicable to Durham's program.

An interview was also conducted with Open Technologies, developer of the benchmarking platform GRID, to gain insights around disclosure and visualization.

Summary of programs and platforms included in the best practice review.

Programs	Jurisdiction	Interviewed
Voluntary Programs		
Building Energy Benchmarking Program	Edmonton	✓
Sustainable Towers, Engaging People (STEP)	Toronto	✓
CAGBC Disclosure Challenge	Canada	✓
Building Benchmark BC	BC	
Better Buildings Ottawa	Ottawa	✓
Business Climate Challenge	London, UK	
Mandatory Programs		
Energy and Water Reporting and Benchmarking (EWRB)	Ontario	
DC Energy Benchmarking Program	Washington, DC	
Chicago Energy Benchmarking	Chicago, IL	
NYC Benchmarking Law	New York City, NY	
Building emissions Reduction and Disclosure Ordinance (BERDO)	Boston, MA	
Building Energy Use Disclosure Ordinance (BEUDO)	Cambridge, MA	
Energy Benchmark Compliance	California	
Platforms	**Developer**	**Interviewed**
GRID	Open Technologies	✓

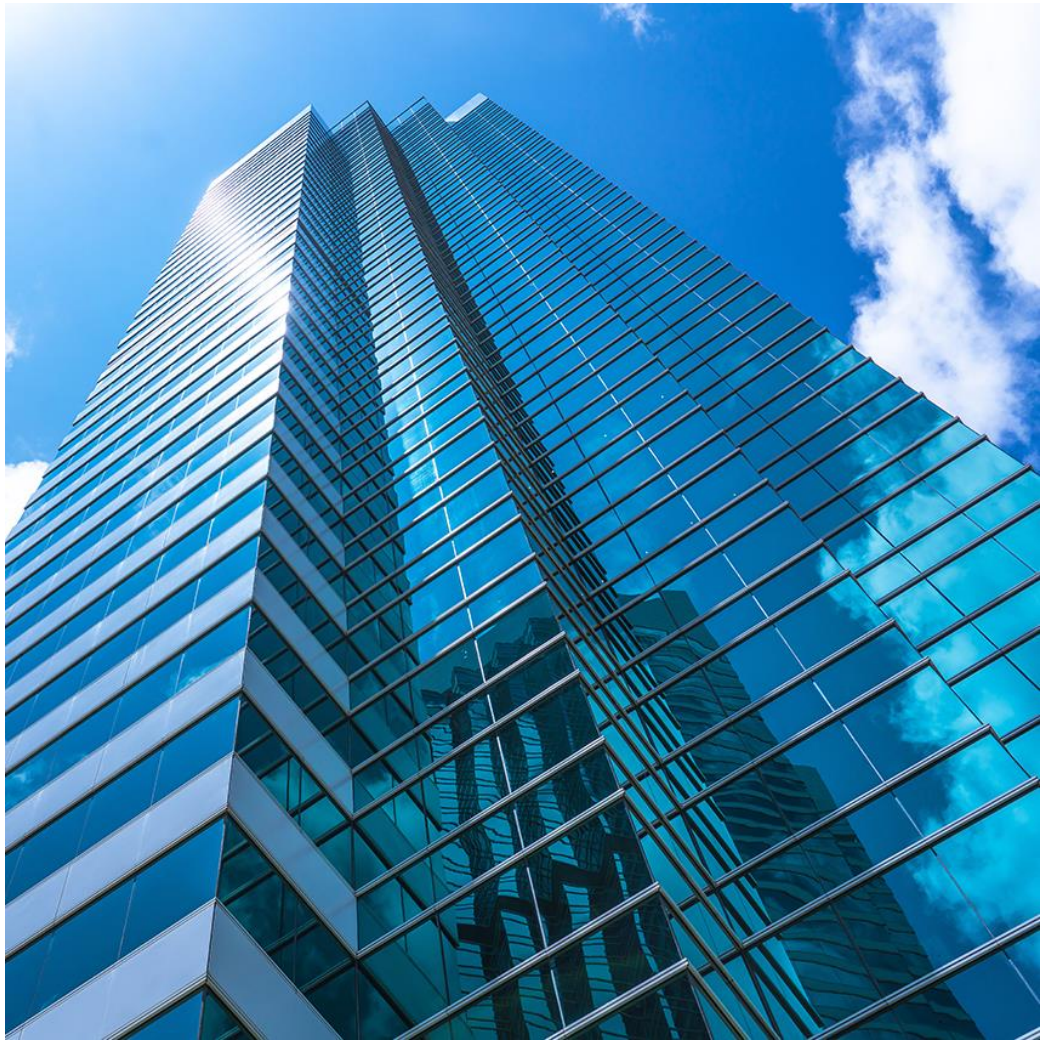
3. Best Practice Review

APPROACH (CONTINUED)

The information collected through the desktop research is available in a supporting excel document), this information along with takeaways from the interviews are summarized on the following pages.

Information Collected

- Program Name
- Website
- Key Contact
- Overarching Goals/Targets
- Building Types and Sizes Covered/Targeted
- Key Metrics Reported
- Administrative/Delivery Model
- Dis/Incentives for Participation
- Number of Buildings
- Sq.Ft. of Buildings
- Energy Savings
- Covered Buildings List
- Form of Disclosure
- Compliance Rate
- Available Benchmarking Data



3. Best Practice Review

WHAT WE FOUND | PROGRAM DESIGN

General

- Programs typically target buildings over 20,000, 25,000 or 50,000 square feet. (Below 20,000 ft2, private owner capacity and potential impact both decline rapidly.)
- Some programs set a lower bar for public sector buildings at 10,000 square feet .
- All mandatory programs in the US introduce fines to increase compliance.
- All programs saw a decrease in energy use in buildings participating in benchmarking programs.

Administrative Requirements

- Programs usually require 0.5-1 FTE for administrative purposes
- Additional FTEs required if on call technical support is being provided.
- Programs often engage external consultants to provide technical support, if capacity and skills are not available in-house.
- Individual follow-up with participants to resolve data issues is often required

Key Partners to Consider

- Industry associations (e.g. BOMA)
- Large portfolio owners
  - Private landlords (e.g. REITS)
  - Non-profit housing associations
  - Healthcare authorities
  - Educational institutions
  - Public sector buildings
- Building management companies
- Elected officials (to champion the program publicly and attend events)
- Technology companies for visualization and data sharing

3. Best Practice Review

WHAT WE FOUND | ENCOURAGING PARTICIPATION

Forms of Owner Support

- Workshops and webinars
- One-on-one training by request
- Help desk phone line
- Online “how to videos” and Frequently Asked Questions (FAQ) lists
- Working groups meetings among peers
- Site tours and case studies
- Training programs on effective building operations and strategic energy management

Incentives

- Use benchmarking as a requirement for participation in other programs, incentives, or financing (e.g., energy audits, thermal inspections)
- Offer recognition and awards to participants
- Provide performance scorecards and insights into energy usage and how it compares with similar buildings
- Provide tailored recommendation reports and support owners in identifying energy/cost-saving measures and develop retrofit plans (though benchmarking data alone may be insufficiently detailed for this)

Communication Channels

- Launch events with elected officials
- Regular e-mail newsletters
- Promote in industry newsletters
- Promote through conferences and events
- Relevant touchpoints with local government (e.g., permitting and planning).
- Individual outreach to potential participants.

3. Best Practice Review

WHAT WE FOUND | CHALLENGES AND LESSONS LEARNED

Main Challenges

- Accessing whole building utility data can be challenging for building owners. Governments need to work with utilities to facilitate this process. Note: in Ontario there is no direct utility upload to ESPM from any utilities yet, but they are working on Green Button access and direct upload could be initiated by any utility that wanted to set it up.
- Certain building types are more challenging to benchmark than others (based on data access and metering—multifamily buildings with separate tenant meters for example)
- Smaller buildings and owners tend to have fewer resources and require more support.

Key Lessons Learned

- Lead by example by benchmarking and disclosing data for public sector buildings
- Align with other local/regional governments in Ontario to avoid creating too much complexity
- Ensure any program is free, low-barrier and low tech
- Some interviewees recommended allowing buildings to participate in voluntary programs, even if they don't have access to complete data, as having these buildings enrolled means you can target support in subsequent years. However, such partial reporting is not be compliant with EWRB, so correct messaging is essential.

Introba

SECTION 4

Durham's Building Market

4. Durham's Building Market

METHODOLOGY

To further understand the opportunity associated with a regional benchmarking support program, the consultant team undertook a market characterization to:

1) Understand the building stock and identifying the buildings that are required to report to the EWRB, those that will be targeted as part of Durham's program.
2) Identify building owners and target markets for Durham's program.

The market characterization was completed using data provided by CoStar, a platform that collects commercial real estate information, as well as data from Ontario's Data Catalogue, which publishes data on the Broader Public Sector (BPS).

4. Durham's Building Market

FINDINGS

The following table provides a breakdown of all privately-owned buildings over 20,000 square feet and all broader public sector buildings in the region that could be a target for the program. It also highlights any current reporting requirements.

Breakdown of the buildings in Durham Region.

Sector	Building Type	Number of Buildings			Totals
		100,000+ SF	50-100,000 SF	20-50,000 SF	
Privately-Owned Buildings (Breakdown Below)		**316**	**382**	**692**	**1390**
Commercial	Automotive	2	2	41	45
	Commercial Office Buildings	16	35	71	122
	Entertainment/Public Assembly	9	19	30	58
	Hotels/Motels	7	7	13	27
	Medical Offices	1	2	10	13
	Religious Worship	0	1	7	8
	Retail Stores	52	80	196	328
	Supermarkets and Food Stores	0	2	9	11
Industrial	Other Industrial	13	7	15	35
	Warehouses	67	76	170	313
Institutional (Non-BPS)	Hospitals	3	2	1	6
	K-12 Schools	6	6	24	36
	Senior Living and Residential Care	18	15	12	45
Residential	Multifamily	122	128	93	343
Broader Public Sector (BPS) Buildings		***Required to report to the Province under the Broader Public Sector Accountability Act***			**683**
All Buildings					**2073**

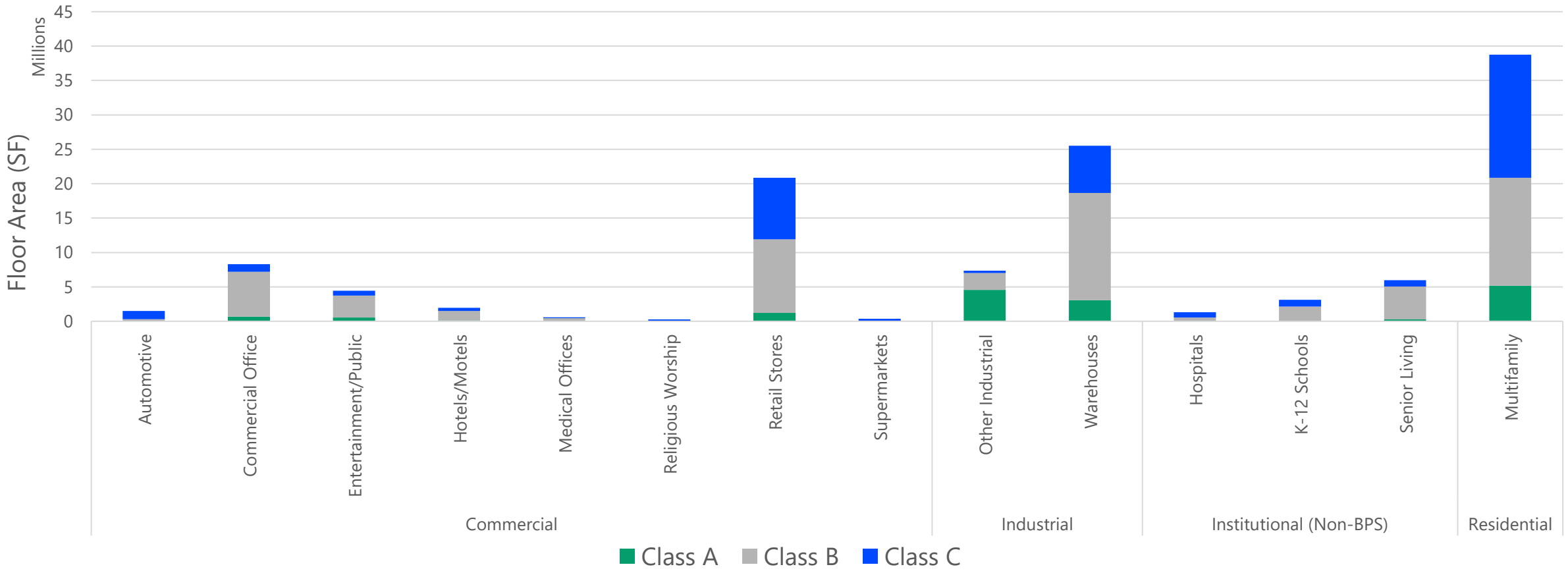
Already required to report to the EWRB

Will be required to report to the EWRB from July 1, 2023

Not required to report

4. Durham's Building Market

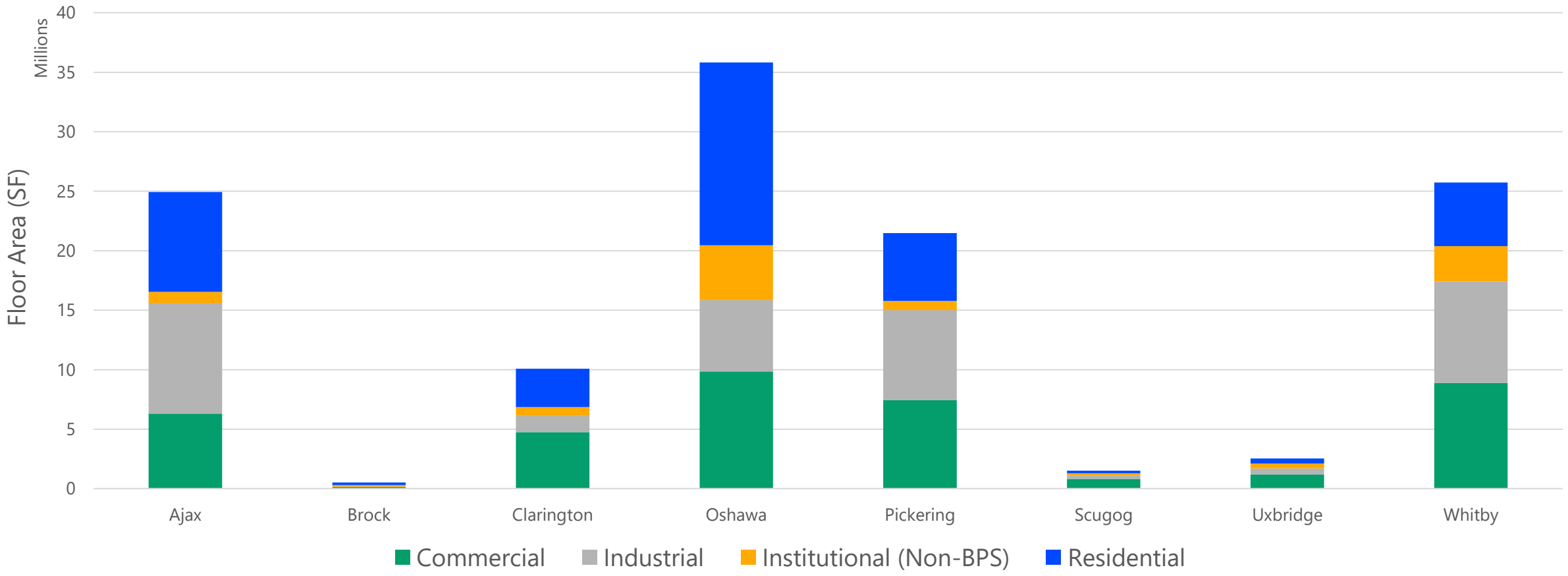
As can be seen in this figure, the largest building types by floor area in Durham Region are **retail stores**, **commercial offices**, **warehouses** and **multifamily residential**. Most buildings are either Class B or Class C (i.e. not prime real estate)



Floor area of privately-owned buildings by building type and class.

4. Durham's Building Market

This figure shows that **Oshawa**, **Whitby**, **Pickering**, **Ajax**, and **Clarington** are the member municipalities with largest building floor areas.



Floor area of privately-owned buildings by municipality and sector.

4. Durham's Building Market

KEY TAKEAWAYS

- **Oshawa, Whitby, Pickering, Ajax, and Clarington** are key member municipalities to engage as part of the program.
- Predominant building types in Durham are **Retail and Offices (Commercial), Warehouses (Industrial), and MURB.**
- Most buildings are either **Class B or Class C.** Class A buildings in the region are likely to be the same buildings already reporting to the EWRB.
- Most institutional buildings are required to report to the Province under the Broader Public Sector (BPS) Accountability Act and are not required to report to the EWRB. **Buildings reporting under the BPS should could also report to Durham's Program to demonstrate leadership** but would not increase the EWRB compliance rate.
- Durham should **focus on buildings over 50,000 square feet**, as these represent buildings required to report to the EWRB with significant GHG emissions reduction potential.
- **Key groups to target** have been established based on these findings and their shared and/or unique opportunities for communication, challenges and value propositions. **Click on the key groups below to find out more on each group.**

Commercial Class B | **Commercial Class C** | **Industrial** | **MURB Condo** | **MURB Rental** | **Social Housing**

4. Durham's Building Market

TARGET MARKETS - COMMERCIAL CLASS B

Type of Building
- Retail stores or offices
- Offer a utilitarian space without special attractions
- Attract a wide range of tenants with average rents

Ownership and Management
- Usually, Single owner
- In some cases, may have multiple owners, represented by a condominium corporation
- Building/units may be owner-occupied or leased
- Building/units may be managed by a third-party
- Companies and owners of multiple buildings (e.g., REITS) are likely to have more resources

Typical Priorities
- Competition from other building owners with leasable area
- Attracting reliable tenants

4. Durham's Building Market

TARGET MARKETS - COMMERCIAL CLASS C

Type of Building
- Retail stores or offices
- Tend to be older and/or offer more basic space.
- Often depend on lower prices to attract tenants and investors.

Ownership and Management
- Often single owner but may have multiple owners, represented by a condominium corporation
- Building/units may be owner-occupied or leased
- Building/units may be managed by a third-party property management company

Typical Priorities
- Competition from other building owners with leasable area
- Maintaining low costs and overhead

4. Durham's Building Market

TARGET MARKETS - COMMERCIAL CLASS A/B/C OWNERS

Municipal Owners

	Owner	Count	Total Floor Area (SF)	% of Floor Area	Class A Floor Area (SF)	Class B Floor Area (SF)	Class C Floor Area (SF)	Unknown Class Floor Area (SF)
	All Commercial Buildings over 20,000 SQFT	612	39388116		2714615	22626014	13041169	1006318
	Owner not listed in CoStar	127	5705610	14%	83327	2985763	2526652	109868
1	RioCan Real Estate Investment Trust	28	1963513	5%	0	842316	1121197	0
2	SmartCentres Real Estate Investment Trust	27	1908833	5%	0	1365406	543427	0
3	Ivanhoé Cambridge	2	1192524	3%	1108788	83736	0	0
4	Ontario Pension Board	2	1054911	3%	127770	927141	0	0
5	Choice Properties Real Estate Investment Trust	12	796441	2%	0	344241	452200	0
6	Triple Group of Companies	4	748257	2%	457109	177488	113660	0
7	City of Oshawa	4	722218	2%	406582	315636	0	0
8	Town of Whitby	4	720481	2%	0	720481	0	0
9	Rekker's Garden Centre	1	665593	2%	0	0	0	665593
10	City of Pickering	5	621846	2%	0	493220	128626	0
11	Valiant Rental Properties Limited	6	611888	2%	0	330690	281198	0
12	First Capital Real Estate Investment Trust	7	577795	1%	0	440556	137239	0

4. Durham's Building Market

TARGET MARKETS - INDUSTRIAL

Type of Building
- Warehouses used for manufacturing, distribution and logistics

Ownership and Management
- Usually single owner (an individual or company)
- In some cases, may have multiple owners (individuals and/or companies), i.e. strata units with different owners
- Building/units may be owner-occupied or leased
- Building/units may be managed by a third-party property management company

Typical Priorities
- Competition from other building owners with leasable area
- Functionality of quality of space

4. Durham's Building Market

TARGET MARKETS - INDUSTRIAL OWNERS

	Owner	Count	Floor Area (SF)	% of Floor Area
	All Industrial Buildings over 20,000 SQFT	348	33,582,545	100%
-	Owner not listed in CoStar	79	8,410,993	25%
1	Choice Properties Real Estate Investment Trust	2	1,753,790	5%
2	Panattoni Canada	4	1,310,000	4%
3	Pure Industrial	7	1,184,824	4%
4	Summit Industrial Income REIT	5	1,131,013	3%
5	Crestpoint Real Estate Investments Ltd.	2	913,635	3%
6	Dream Industrial REIT	4	695,950	2%
7	Transmetro Properties Limited	2	631,262	2%
8	Nova Scotia Pension Plan	3	511,215	2%
9	LCBO	1	458,065	1%
10	Manulife Financial Corporation	2	449,281	1%
11	Empire Company Limited	1	431,549	1%
12	Forgestone Capital	1	411,797	1%

4. Durham's Building Market

TARGET MARKETS - MURB CONDO

Type of Building
- High-rise, mid-rise, or low-rise multifamily building, or complex of apartment buildings
- Single owner and multiple tenants
- Market rate rental

Ownership and Management
- Units have different owners
- Units may be owner-occupied or rental.
- Owners may be represented by a condominium corporation or a strata council

Typical Priorities
- Keeping utility costs low
- Maintaining reliable assets
- Preserving resident health and safety

4. Durham's Building Market

TARGET MARKETS - MURB RENTAL

Type of Building
- High-rise, mid-rise, or low-rise multifamily building, or complex of apartment buildings
- Multiple tenants

Ownership and Management
- Typically single owner (entity/company)
- Building may be managed by the owners or through a third-party property management company

Typical Priorities
- Attracting reliable tenants
- Resident health and safety
- Reduced utility bills

4. Durham's Building Market

TARGET MARKETS - SOCIAL HOUSING

Type of Building
- High-rise, mid-rise, or low-rise multifamily building, or complex of apartment buildings
- Multiple tenants

Ownership and Management
- Typically single owner (entity/company)
- Municipally-owned social and community housing falls under the BPS, but privately-owned housing and non-profits do not.

Typical Priorities
- Resident health and safety
- Reduced utility bills

4. Durham's Building Market

TARGET MARKETS - MURB RENTAL AND SOCIAL HOUSING OWNERS

Municipal Owners

	Owner	Count	Floor Area (SF)	% of Floor Area
	All MURB Rental and Social Housing Owners over 20,000 SQFT	343	38880053	
-	Owner not listed in CoStar	142	18736159	48%
1	Canadian Apartment Properties REIT	7	2610617	7%
2	Durham Region Non-Profit Housing Corporation	24	2064069	5%
3	Q Residential	7	1111222	3%
4	Valiant Rental Properties Limited	7	924346	2%
5	Ajax Municipal Housing	6	686628	2%
6	KingSett Capital Inc.	6	682381	2%
7	Realstar Asset Management	6	654968	2%
8	Starlight Investments Ltd.	6	618757	2%
9	Homestead Land Holdings Ltd.	2	557770	1%
10	Ventas, Inc.	3	531034	1%
11	JD Development Group	1	379000	1%
12	Acorn Properties	3	361600	1%

Condominium buildings not included as each has their own strata council

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SECTION 5

Engaging Stakeholders

5. Engaging Stakeholders

APPROACH

The purpose of the engagement in this project was to solicit feedback from key stakeholders on the potential value and ideal nature of an energy benchmarking program in the Durham Region. Three main groups of stakeholders were engaged as part of this process, the approach and objectives of the engagement of each of these groups are detailed in the table below. Summaries of the feedback received from each stakeholder group are provided on the following pages, and detailed feedback from the workshops that were conducted is provide in supporting document.

Approach and objectives of engagement.

Stakeholder Group	Objectives of Engagement	Form of Engagement
Building owners, property managers and major tenants	• Present the proposed architecture for a regional benchmarking program • Solicit feedback on the factors that would encourage or discourage broad uptake and participation • Refine the draft program structure based on feedback • Identify strategic partners who keen to actively support the program's success	• Workshop (13 participants)
Regional and municipal staff	• Present the idea and purpose of a regional benchmarking program • Solicit input on the draft program outline, focusing on program administration and potential roles/ responsibilities between the region and its members • Solicit ideas for encouraging participation in the program, including leveraging any existing contacts with building owners/managers/tenants	• Workshop (13 participants)
Utilities	• Identify potential interest and role in supporting a regional benchmarking program • Identify key considerations and issues that need addressing around data access for buildings subject to EWRB Discussion. • Explore potential synergies with complimentary utility programs, such as the Green Button standard implementation.	• One-to-One Meetings

5. Engaging Stakeholders

WHAT WE HEARD - BUILDING OWNERS, PROPERTY MANAGERS AND MAJOR TENANTS

Benefits of the Program

- Increased retention of high-profile tenants with corporate goals.
- Differentiation from other landlords.
- Support in identifying quick wins to improve building performance.
- Having more data available to make more informed decisions.
- Demonstrating community commitment to sustainability.
- Opens up a conversation around improvement and best practices.

5. Engaging Stakeholders

WHAT WE HEARD - BUILDING OWNERS, PROPERTY MANAGERS AND MAJOR TENANTS (CONTINUED)

Potential Challenges to Address

- Could represent another "to-do" on the list, especially for owners with low capacity.
- Need for clarity on how data will be shared.
- Owners/businesses may already be tracking for internal goals.
- Getting a certified professional to verify data also seems like another ‘to do’.

How To Encourage Uptake?

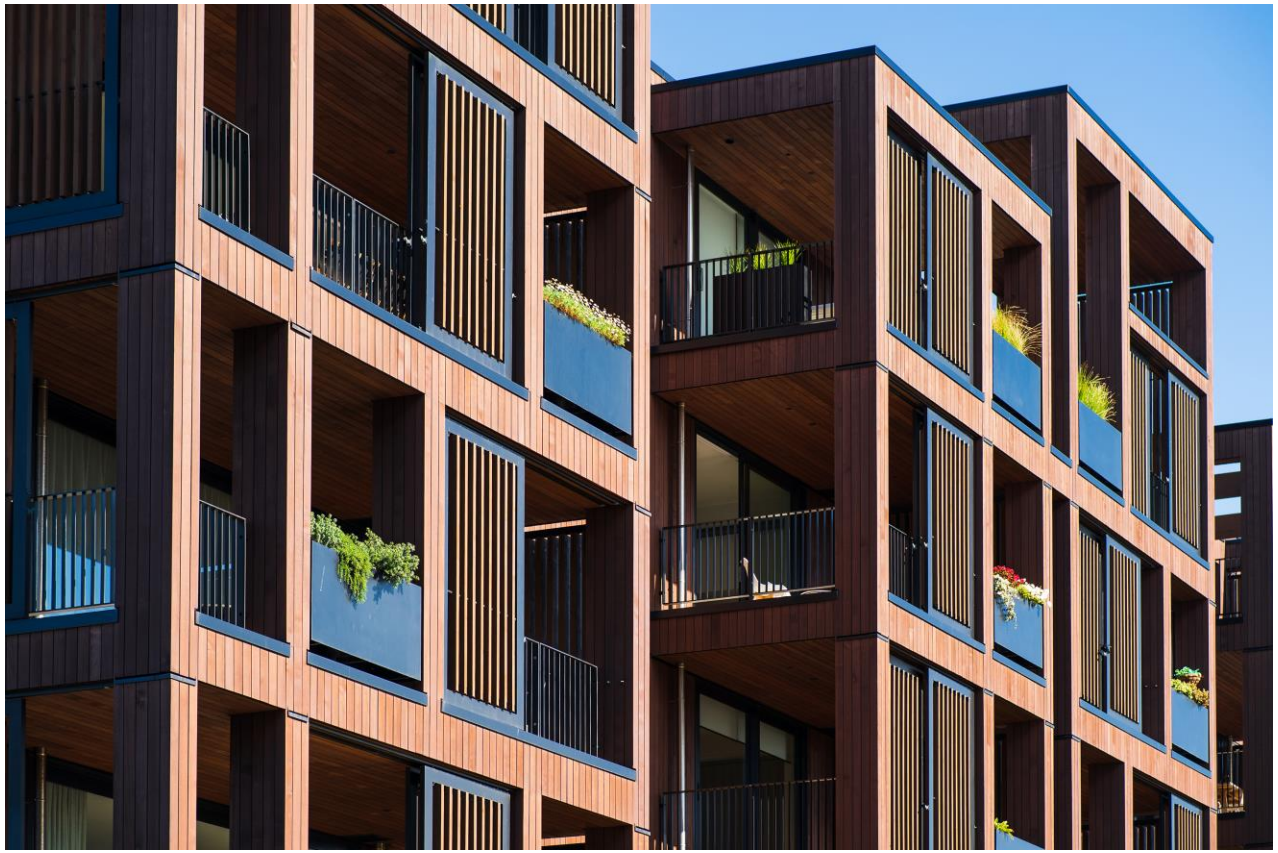
- Clearly showcase the value of program participation
- Ensure a very low ask on participant time.
- Communicate how the information will be used and who will have access to it. Consider using a disclosure of intent.
- Clarify the role of the utility and how data will be transferred.
- Move beyond plaques to consider visibility in town squares, city-owned digital displays, etc.
- Consider incentives e.g., relief of development charges or through promotional programs run by the local utilities.
- Provide an FAQ to clarify program components.

5. Engaging Stakeholders

WHAT WE HEARD - REGIONAL AND MUNICPAL STAFF

Benefits of the Program

- Increased accountability within the organization.
- Improved understanding of sector wide building performance
- Access to building performance data to inform emission tracking and reporting
- Use as a marketing tool to encourage tenant selection in government-owned buildings
- Ability to understanding relative performance between buildings.
- Inform capital spending and asset management.
- Supports member municipalities' *Climate Emergency Response Program* and *Green Development Standard*.



5. Engaging Stakeholders

WHAT WE HEARD - REGIONAL AND MUNICPAL STAFF

Potential Challenges to Address

- General concerns about the ability to dedicate municipal staff capacity and resources to supporting the program.
- Potential fear/hesitation among owners around public disclosure.
- Need to avoid confusion and ensure coordination with other similar programs.
- Ensuring a compelling value proposition for building owners and supporting them in tracking down the data needed to benchmark.
- Identifying key contact information for building owners and keeping that info current.

5. Engaging Stakeholders

WHAT WE HEARD - REGIONAL AND MUNICPAL STAFF (CONTINUED)

How To Encourage Uptake?

INCENTIVES

- Deploy incentives, including through Green Development Standards.
- Require benchmarking as a pre-requisite for funding.
- Consider a "ladder of participation" to allow participants to join without completing all program steps (e.g. provide options with or without public disclosure of data).

AWARDS AND RECOGNITION

- Create a portal or website to showcase the "best of" in each class.
- Recognize improvements/progress across an owner's portfolio.
- Consider recognition of not only buildings, but the businesses within buildings.

RECRUITMENT

- Use planning and building permitting as a touch point for the program.
- Consider advertising the program through utility/tax bill inserts.
- Encourage participation where Durham or member municipalities lease building.

5. Engaging Stakeholders

WHAT WE HEARD - UTILITIES

Utilities' customer base mostly comprises residential and commercial building customers, which is a key target for the Region's energy benchmarking program. This presents a unique opportunity to streamline marketing and outreach efforts and further support compliance with EWRB.

Utility-data integration is an underlying issue of energy benchmarking programs as utilities systems require third party software to interface with ESPM web services. However, the emergent OEB regulation of Green Button Implementation may help alleviate this issue as it will support data sharing/reporting.

Starting November 1, 2023, most regulated Ontario electricity and natural gas utilities will be required to provide their customers with access to their energy usage data in Green Button format. Green Button is a data standard that provides residential and business energy customers with more choices in accessing and analyzing their electricity / natural gas usage data to help facilitate energy efficiency improvements.

Though Portfolio Manager does not currently offer the ability to upload Green Button files, nor support the Green Button Connect My Data API, utilities that implement Green Button have an easier time connecting to third party tools for Portfolio Manager upload.)

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SECTION 6

Recommendations for Program Design

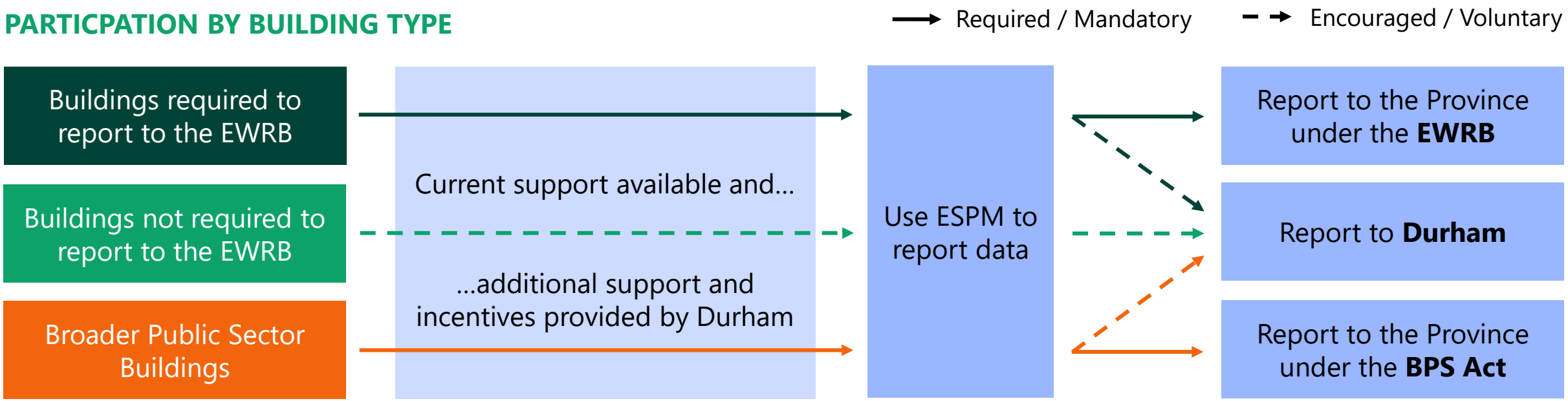
6. Recommendations for Program Design

OVERVIEW OF RECOMMENDATIONS

1. Structure program to be accessible to buildings of all sizes and allow them to participate at different levels. Prioritize EWRB buildings, but also include broader public sector buildings and smaller private buildings. Phase program outreach and expansion over three years to build capacity.
2. Use a third party to administer key program elements, and establish clear divisions of responsibility between the Region, member municipalities, and the third party, and leverage strategic partnerships.
3. Support owners in benchmarking with a range of technical assistance options; providing additional support to buildings covered by EWRB will increase compliance.
4. Ask building owners to share the building information they are reporting to the EWRB with Durham *as well,* rather than trying to get the data from the Province or act as an intermediary.
5. Emphasize "sharing" of data and lower barriers to entry; consider using the sharing or exchange data features in ESPM.
6. Work with utility partners to support benchmarking data access and increase alignment across energy conservation programs.
7. Target communications and messaging by building/owner type to increase engagement and uptake.
8. Aim to disclose data and explore options for visualization of the data to make it more impactful and user-friendly.

6. Recommendations for Program Design

PARTICPATION BY BUILDING TYPE



Buildings required to report to the EWRB may or may not use the additional support and incentives provided by Durham when reporting under the EWRB; either way, they will be encouraged to report their data with Durham as well.

Buildings not required to report to the EWRB will be able to voluntarily report to Durham, they may or may not use the additional support and incentives provided by Durham. Encouraging these buildings to participate will simplify participation by portfolio owners and prepare buildings if broader reporting requirements are introduced.

Broader Public Sector Buildings may or may not use the additional support and incentives provided by Durham when reporting under the BPS Act, either way, they should also report their data to Durham as well, to demonstrate leadership.

6. Recommendations for Program Design

PROGRAM TARGETS AND PHASING

Year	Buildings required to report to the EWRB (2021 100,000 SF + / Target Years 50,000 SF +)	EWRB Compliance Rate	Buildings not required to the EWRB (20 - 50,000 SF)	BPS Buildings (Public Sector)	Total
Total number of buildings in Durham					
-	281 / 663	-	692	683	**2,038**
Number of buildings reporting to the EWRB and/or Durham's Program					
2021 (Actual)	86	**31%**	-	-	**86**
Year 1 Targets	150 – 200	**20 - 30%**	0 - 50	300 – 400*	**450 – 650**
Year 2 Targets	350 - 400	**50 - 60%**	50 - 100	400 – 500*	**800 – 1,000**
Year 3 Targets	400 - 450	**60 - 70%**	100 - 150	500 – 600*	**1,000 – 1,200**

*Dependant on when the BPS switches to using ESPM for reporting

A phased approach to target setting is suggested to allow for a reasonable expectation of participation, and allow the Region to establish the program. An initial drive should be focused on getting broader public sector buildings reporting to the program to demonstrate leadership, followed by (or alongside) leaders in the building sector (e.g. Class A buildings).

6. Recommendations for Program Design

ROLES AND RESPONSIBILITIES

Given the expertise and time involved in program development and administration, it is recommended that Durham Region engage a **third party** to provide the technical and administrative support for the program. (Windfall Ecology Centre is a potential candidate, given that they already operate the EWRB Help Desk and support other local governments in Ontario with similar programs such as *Climate Wise*). The potential roles of Durham Region, the member municipalities and a third-party service provider are outlined below.

Durham Region

- Hosts and funds benchmarking support program
- Ensures coordination between program partners
- Supports broader outreach and advisement of the program to the building sector
- Coordinates recognition and awards program

Member Municipalities

- Supports outreach to building sector members
- Supports awareness building and advertising
- Undertakes benchmarking and disclosure for municipally-owned buildings
- Showcases municipal facility achievements

Third-Party Service Provider

- Develops covered buildings list
- Creates reporting template for building owners to report ESPM data to Durham
- Provides technical support and guidance to participants, including a help desk
- Provides reminders/prompts to covered buildings

6. Recommendations for Program Design

STRATEGIC PARTNERSHIPS

Durham may also wish to form strategic partnerships to support the implementation and success of the program, potential groups Durham could partner with, and their value are noted in the table below.

Potential Groups	Potential Contacts		Value Add
Durham Region / Member Municipalities	• Department Representatives • Service Providers	• Elected Officials • Energy Managers	• Internal co-ordination and messaging • Promotion through programs and services • Leverage local building owner contacts • Get public sector buildings to report to demonstrate leadership
EWRB / Ministry of Energy	• Rae Whitton	• EWRB Working Groups	• Support program
Industry Associations	• BOMA (Jeff Ranson) • CHBA • Durham Region Association of Realtors	• Chambers of Commerce and Boards of Trade • BIAs / Downtowns of Durham	• Reach out to their members to encourage participation
Resident Associations	• Strata Councils	• Condominium Cooperations	
Portfolio Owners	• Canadian Apartment Properties • Choice Properties • RioCan • SmartCentres • Valiant Rental Properties	• Panattoni Canada • Ivanhoé Cambridge • Pure Industrial • Durham Region Non-Profit Housing Corporation	• Champion the program • Benchmark their own buildings
Post- Secondary Institutions	• Ontario Tech University • Trent University	• Durham College	• Champion the program • Benchmark their own buildings
Utilities	• Enbridge • Elexicon	• Oshawa Power • Hydro One	• Champion the program • Support building owners with access to data
Research	• Clean Air Partnership	• TAF	• Champion the program

6. Recommendations for Program Design

SUPPORTING BUILDING OWNERS

While some support for owners required to report to the EWRB is already offered by the Province of Ontario, it is currently insufficient to ensure a high level of compliance. Based on best practices and stakeholder engagement, the items to the right represent successful engagement methods that Durham should consider in program design.

What support could Durham provide?

- ❑ Provide annual reminders for when action is required via email or individual outreach
- ❑ Additional technical support & guidance
  - Online educational materials (e.g., guides and how to videos)
  - Online training sessions and tutorials
  - Call Centre / Help Desk
- ❑ Convening working groups/cohorts
- ❑ Recognition and awards programs
- ❑ Make participation a requirement of rebate and other programs
- ❑ Scorecards and recommendation reports
- ❑ Provide training programs on operating buildings effectively and strategic energy management
- ❑ Access to or a raffle for energy audits, commissioning services, envelope thermal inspections etc.
- ❑ Access to additional pro bono support by third parties (e.g., graduate students)

6. Recommendations for Program Design

ASK OWNERS TO SHARE THEIR DATA WITH DURHAM DIRECTLY

It will be important to be clear in how data can be requested, and to ensure that it constitutes a very low level of effort for participants. Three main approaches to this are explored in the table below. As noted by building owners engaged for this project, many potential participants may be confused or offput by the request to share their data with the Region. However, requesting reporting to both entities may represent the best approach to ensure Durham receives the right data.

	Owner reports data to the EWRB and the EWRB shares the data with Durham	Owner reports data to the EWRB and Durham	Owner reports data to Durham and Durham shares it with the EWRB
APPOACH	1. Buildings subject to EWRB report to EWRB every year using ESPM 2. Province shares data once a year with Durham Region 3. Smaller buildings use ESPM to report data to Durham	1. Buildings subject to EWRB report to EWRB every year using ESPM 2. Building owners also share data from ESPM with Durham. 3. Smaller buildings use ESPM to report data to Durham	1. All building owners report to Durham using ESPM 2. Durham submits the data to the EWRB for buildings that are required to report.
PROS	• Does not change the EWRB reporting process • Simplified messaging for larger buildings	• Durham gets data directly without relying on Province • Durham gets more data, more regularly and can use it for more purposes • Durham can provide real-time feedback on data submissions	• Simplest process for building owners • Aligns with existing best practice from California • Durham gets more data, more regularly
CONS	• Province may not regularly share data with Durham in sufficient detail • Durham would have difficulty verifying if/what building data was in fact reported • Different approach for smaller buildings from larger buildings	• Potential for confusion as building owners must submit twice, to two different governments. • Durham would promote EWRB but not be linking to it directly in any way.	• May not comply with legal requirements of EWRB • Potential liability exposure for Durham • Region would be perceived as enforcement entity for Province, which is undesirable • No easy path for EWRB to enforce

6. Recommendations for Program Design

HOW SHOULD OWNERS BE ASKED TO SHARE DATA?

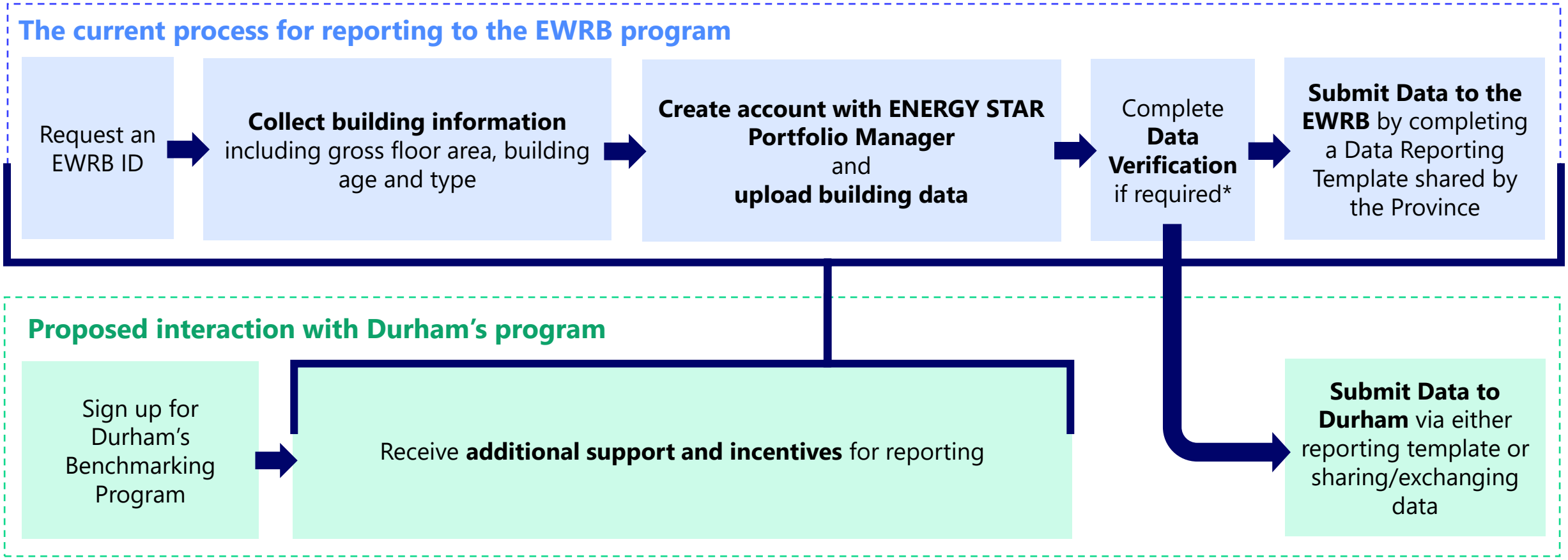
There are three main ways for owners to share data with the Region. Stakeholders evidenced a strong preference for one of the share/exchange options. Regardless, it is recommended that Durham frame the request as "sharing" the data with Durham and "reporting" the data to EWRB, to help distinguish the nature of the ask and emphasize that both need to happen.

	Using a Reporting Template	Sharing Data	Exchanging Data
STEPS	1. Jurisdiction defines the fields they want as in a custom template 2. Link to reporting template online 3. Owner clicks the link and follows defined steps to select which properties to report, review the data, and hit submit 4. Jurisdiction receives a spreadsheet 5. Must be done every year	1. Building owner initiates a "connection" in Portfolio Manager to a jurisdiction's account 2. Owner shares "read-only access" to properties with the jurisdiction 3. The jurisdiction exports shared data 4. Only done once (though owner must keep Portfolio Manager data up to date)	1. Building owner initiates a "connection" in Portfolio Manager to a data exchange account 2. Owner shares "read-only access" to properties with the jurisdiction 3. The jurisdiction has software that connects automatically to ESPM and pulls data 4. Only done once (though owner must keep Portfolio Manager data up to date)
PROS	• Clear limits to owners on what data will be accessed • Forces people to run a data quality check and review performance data each year	• Easiest to do for building owner – ***strong stakeholder preference*** • Gives access to all data • Only needs to happen once • Least associated with "regulatory" systems	• Automated Reporting is only proven technique for reaching 99% compliance in any jurisdiction • Gives access to all data • Only needs to happen once • Third party such as Open could operate
CONS	• Must happen each year • Has a "regulatory" feel • High drop-out rate as people forget to report • Cumbersome and slow for all parties • Does not grant access to all data	• Despite its name, it is difficult to use Portfolio Manager as a data management tool; data still would need exporting to a spreadsheet. • Does not force owners to keep data up to date	• Most complex to set up initially—needs either third party to run or high level of technical capacity in-house • Does not force owners to keep data up to date

6. Recommendations for Program Design

FLOW CHART OF PROPOSED PROCESS

Based on the above recommendations, the following process is envisioned for a building owner sharing data:



*If the building is 100,000 square feet or larger, reported data must be verified by a certified professional the first year you report, then every five years.

6. Recommendations for Program Design

EXPAND UTILTY DATA ACCESS

Municipal/public utilities in the Durham region are a key partner in helping ensure the program succeeds. Utilities can help support Durham's program in three ways:

1. **Provide** aggregate data for all residential and commercial buildings. All utilities do provide this service, as required by the Ontario EWRB regulations, but it isn't always accessible. We recommend that Durham work with member municipalities and utilities to request (or require, to the extent possible) clearer information about how building owners can request benchmarking data. At a minimum, utilities should create "benchmarking" pages on their website that explain how to request this data, but online web portals for requesting the data are even better.
2. **Introduce free direct utility data upload to Portfolio Manager.** Regional utilities have a great opportunity here to show Provincial leadership and greatly support government initiatives by offering this service free of charge to their customers. We recommend that Durham work with utility partners and get at least one to offer this service.
3. **Collaborate on energy efficiency programs:** We recommend that Durham continue to work with its utility partners to support alignment across energy conservation programs, such as connecting poor performing buildings with utility incentives and programs.

6. Recommendations for Program Design

OUTREACH: COMMUNICATE VALUE OF PARTICIPATING IN PROGRAM

Different value propositions should be used for outreach and messaging for different building and owner types to maximize interest and avoid confusion, as per the table below.

Value Proposition	Commercial Class A	Commercial Class B	Industrial	MURB Condo	MURB Rental	Social Housing	Public Sector
See how your building is comparing year to year, and in comparison to other buildings of a similar type.	✓	✓	✓	✓	✓	✓	✓
Identify opportunities for operational efficiency improvements and retrofits, reducing costs and energy use.	✓	✓	✓	✓	✓	✓	✓
Attract and retain investors/prospective tenants who value transparency and responsible management and give them the information they need to choose your building over your competition's. Let prospective tenants know that they can expect a well-performing building with lower operating costs.	✓	✓	✓		✓		
Gain an understanding of the total energy usage across all tenants with aggregate data from utility providers.	✓	✓	✓		✓	✓	
Join your fellow building owners/managers in leading the building industry. Help achieve your corporate social environmental goals.	✓					✓	✓
Collecting and sharing your building's performance will help give provincial and local government information they can use to shape supportive programs (e.g. rebates and incentives) for lower-performing buildings.		✓	✓	✓	✓	✓	

6. Recommendations for Program Design

OUTREACH: COMMUNICATE INCENTIVES OF PARTICIPATING IN PROGRAM

Similarly, different incentives and benefits should be promoted to different building and owner types to maximize interest and avoid confusion.

Value Proposition	Commercial Class A	Commercial Class B	Industrial	MURB Condo	MURB Rental	Social Housing	Public Sector
Receive extra support to fulfill requirement of reporting to the EWRB	✓	✓	✓	✓	✓	✓	
Gain recognition from your peers, for participating, even if your performance is low compared to others in the program.	✓	✓	✓	✓	✓	✓	✓
Collecting and sharing your building's performance will help Durham the information they can use to shape supportive programs (e.g. rebates and incentives) for lower-performing buildings.		✓	✓	✓	✓	✓	
Engage with peer building owners, tenants and managers and share experiences and lessons learned.	✓	✓	✓	✓	✓	✓	✓
Gain recognition from your peers, for participating, even if your performance is low compared to others in the program.	✓	✓	✓	✓	✓	✓	✓

6. Recommendations for Program Design

OUTREACH: METHODS

There are various methods for reaching buildings owners as listed below:

- Conduct direct outreach to known building owners and property management companies (i.e., by phone or email), targeting large portfolio owners.

  Sources of contact information for direct information are explored in the table to the right.
- Promote through regional and municipal services, processes and programs, e.g., business license renewals, permitting and planning, tax and utility bills inserts.
- Promote through conferences, newsletters, media and events, potentially with elected officials.
- Engage through industry/business associations, e.g., Chambers of Commerce and Boards of Trade
- Advertise the program at relevant touchpoints with local government, e.g., permitting, licensing
- Leverage existing relationships, e.g., between member municipalities and businesses/housing providers
- Engage with local engineers, architects and consultants who work in energy auditing, commissioning, and/or retrofit work.

Sources of Contact Information for Direct Outreach

Source	Status
MPAC Tax Data	No contact information is available in MPAC Data that Durham has access to.
CoStar Data	No contact information is available in CoStar Data that Durham has access to, but the does include building owner names that can be searched for contact information.
Business License Information	To be explored by Durham.
Durham Water Utility	To be explored by Durham.
Existing Relationships (Municipalities, Industry Associations)	To be explored by Durham.
Google Search	Would require resources.
During Sign Up to Program	To be explored by Durham. Will only give contact information to those already interested.

6. Recommendations for Program Design

DATA DISCLOSURE

The Province of Ontario currently publishes the data collected through the EWRB annually through their online data catalogue. All members of the public have access to this dataset. The data set only includes high-level building information and location by FSA.

Regions and municipalities in the Province do not receive more granular data from the Province, so it is recommended that Durham along with other jurisdictions in the Province advocate for access to this. Regardless, a key recommendation of this report is that Durham requests data from building owners directly.

Having more granular data will allow Durham to develop programs and polices and create an ecosystem of support for retrofitting existing buildings.

The Province also does not currently visualize the data they collect, i.e. on a data disclosure map. This is something Durham could consider doing in the future if they collected data themselves. GRID by Open Technologies is an example of a platform where data can be pulled directly from ESPM and visualized with minimal effort from Durham. Building owners tend to have concerns around data disclosure, so if Durham request data directly it is recommended to provide clear direction on the intent for using this data.

Publicly disclosing non-anonymized data in a user-friendly format increases the benefits of benchmarking by enabling direct peer-to-peer comparisons.

Durham could consider a 'ladder of engagement', allow buildings owners to approve certain uses of the data they are sharing - however, if given option no one will approve public disclosure.

6. Recommendations for Program Design

DRIVING CHANGE

Having granular benchmarking data will allow Durham to develop programs and polices and create an ecosystem of support for retrofitting existing buildings. Beyond simple public disclosure, additional ways the data could be used include:

- Creating building “report cards” that help buildings understand how they compare to their local peers and promote improvements—this can be done without full public disclosure
- Identify the highest energy users and directly recruit them for efficiency incentives of retrofit programs
- Use cohorts to connect building owners with one another to share best practices, and with financing opportunities
- Identify best public building candidates for audits and retrofits
- Understanding local building performance will help improve modelling of future climate plan impacts and target highest use sectors with specific programs and incentives
- Promote high performers and all-electric buildings as case studies from which others can learn
- Combining with geospatial data, benchmarking data can identify good candidates for solar PV installations