Large Building Energy and Water Reporting and Benchmarking (EWRB)

Sustainable Buildings Canada

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Introduction


- Ontario building owners of commercial, industrial, multi-unit residential and other building types that are 50,000 square feet or larger are required to annually report their building’s energy and water consumption, and greenhouse gas emission data to the Ministry of Energy, Northern Development and Mines (ENDM).

- ENDM will make some of this data publicly available as outlined in O. Reg. 506/18. Data will be made public in the second year of reporting.
Implementation Timeline

✓ Year 1: July 1, 2018 (consumption data from 2017 calendar year)
  – Commercial and industrial buildings over 250,000 square feet

• Year 2: July 1, 2019 (consumption data from 2018 calendar year)
  – Commercial, industrial and multi-unit residential buildings over 100,000 square feet

• Year 3: July 1, 2020 (consumption data from 2019 calendar year)
  – Commercial, industrial and multi-unit residential buildings over 50,000 square feet
Regulation Update

• Buildings that are under 50,000 square feet are not required to report regardless of the metering infrastructure.
  – For example, in a plaza that has numerous buildings under and over 50,000 sq. ft., only buildings 50,000 sq. ft. and larger are required to report. This is consistent with the intent of the Regulation

• Building owners now have the option to report at the building level as an alternative to reporting at the property level.
  – Building owners will need to provide information to the Ministry of Energy, Northern Development and Mines (ENDM) on the size and use of the individual buildings so that ENDM can assign an EWRB number to each building
Regulation Update

- Prescribed properties are required to report even if they have less than 50% occupancy on average. This was included as an exemption in the original Regulation. The rationale for the change is that:
  - A number of building owners who were reporting in Portfolio Manager (PM) prior to EWRB reported on buildings with various levels of occupancy and have indicated their desire to continue to do so.
  - PM will adjust for these vacancy levels when it generates energy intensities or scores so that benchmarking will be fair when comparing buildings.
  - It permits building owners, regardless of occupancy levels, to benchmark their buildings and increase opportunities for energy savings.
Value of Building Benchmarking

- Energy use is one of the largest operating expenses in commercial and residential buildings.
  - It represents about 1/3 of typical building operating budgets, according to www.energystar.gov
  - A number of studies have shown as much as a 30% decrease in energy use in commercial buildings that implemented a small number of energy-efficiency strategies and monitoring systems

- EWRB compiles the information building owners and managers need to understand how energy and water is being used.
  - The largest barrier to identifying cost efficiencies and making existing buildings more efficient is a lack of access to the data needed to measure and track energy performance
  - The vast majority of buildings in jurisdictions that benchmark have taken steps to improve performance by investing in low- or no-cost changes
Value of Building Benchmarking

• EWRB introduces to the marketplace a data set that can be used to valuate efficiency and drive investment.
  – Publicly available building performance information enables property and financial markets to compare building performance, value efficient buildings, drive efficiency investments and business competitiveness
  – Vast majority of buildings in jurisdictions that benchmark have taken steps to improve performance by investing in low- or no-cost changes
Value of Building Benchmarking

• Through broader public sector reporting (BPS), Ontario municipalities and other entities have been required to report their energy consumption since 2013.
  – There has been a 6% reduction in electricity consumption in entities reporting under BPS, when comparing 2014 to the 2006 baseline
  – Staff from municipalities have noted that energy consumption data for reporting has provided information they need to make the business case to municipal councils for approval of energy efficiency activities

• Jurisdictions in Canada that have also seen the value in implementing building benchmarking and reporting initiatives include the province of Manitoba and cities of Vancouver and Edmonton
Value of Building Benchmarking

Reported savings in select U.S. cities with building energy benchmarking policies:

**Washington, D.C.**
9% (2010-13)

**Chicago, IL**
10% (2010-15)

**New York, NY**
6-14% (2010-14)

**San Francisco, CA**
7.9% (2010-14)

**Minneapolis, MN**
3.4% (2014-16)

**Seattle, WA**
3.7% (2014-16)
Value of Building Benchmarking

• According to a survey conducted by the National Electrical Manufacturers Association (NEMA), building energy benchmarking and transparency ordinances in the U.S. have had a direct and positive impact on energy efficiency.

• 84% of buildings that participated in benchmarking made a low- or no-cost operational change to improve their performance.

• 82% invested in new equipment that supports manufacturing and construction jobs.

Source: NEMA, April 2017
Does My Building Meet the Reporting Threshold?

- Buildings that are under 50,000 square feet are not required to report regardless of the metering infrastructure.
  - For example, in a plaza that has numerous buildings under and over 50,000 sq. ft., only buildings 50,000 sq. ft. and larger are required to report. This is consistent with the intent of the Regulation

- Your building’s square footage, referred to in Portfolio Manager as gross floor area (GFA), may be found in existing records (e.g., blueprints, architectural plans).
  - GFA does not include any exterior, unroofed or open-air spaces, such as an outdoor parking area
  - A building’s underground parking GFA is measured and reported in Portfolio Manager separately from the building’s GFA
Making Your EWRB Report

Calculating Your Building’s GFA

• If you can’t find your building’s GFA in your property records, you may be able to calculate it by multiplying the measured length, width and number of floors in your building.

• The following illustrations provide a visual demonstration of how to calculate the gross floor area of three common building types.
Making Your EWRB Report

EXAMPLE:
MULTI-RESIDENTIAL OR COMMERCIAL BUILDING

HOW TO MEASURE

Part A: 80 ft. x 90 ft. = 7,200 SF x 4 storeys = 28,800 SF
Part B: 300 ft. x 50 ft. = 15,000 SF x 5 storeys = 75,000 SF

GROSS FLOOR AREA: 28,800 SF + 75,000 = 103,800 SF

Required to report annually by July 1
Making Your EWRB Report

**EXAMPLE:**
COMMERCIAL STRIP MALL

**HOW TO MEASURE**

<table>
<thead>
<tr>
<th>Part</th>
<th>Measurement</th>
<th>Calculation</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A</td>
<td>150 ft. x 500 ft. = 75,000 SF x 1 storey</td>
<td>= 75,000 SF</td>
<td></td>
</tr>
<tr>
<td>Part B</td>
<td>150 ft. x 150 ft. = 22,500 SF x 2 storeys</td>
<td>= 45,000 SF</td>
<td></td>
</tr>
<tr>
<td>Part C</td>
<td>150 ft. x 400 ft. = 60,000 SF x 1 storey</td>
<td>= 60,000 SF</td>
<td></td>
</tr>
<tr>
<td>Part D</td>
<td>175 ft. x 100 ft. = 17,500 SF x 2 storeys</td>
<td>= 35,000 SF</td>
<td></td>
</tr>
</tbody>
</table>

**GROSS FLOOR AREA:** 75,000 + 45,000 + 60,000 + 35,000 = **215,000 SF**

Required to report annually by July 1
Making Your EWRB Report

EXAMPLE:
TWO MULTI-RESIDENTIAL, COMMERCIAL OR MIXED USE BUILDINGS SHARING AN ELEVATED WALKWAY

HOW TO MEASURE

Building 1
100 ft. x 120 ft. = 12,000 SF x 30 storeys = 360,000 SF
Walkway = 110 ft. x 50 ft. = 5,500 SF
GROSS FLOOR AREA: 360,000 SF + 5,500 SF = 365,500 SF

Building 2
100 ft. x 150 ft. = 15,000 SF x 30 storeys = 450,000 SF
(Walkway area allocated to other building)
GROSS FLOOR AREA: 450,000 SF

Building 1 + 2
GROSS FLOOR AREA: 365,500 SF + 450,000 SF = 815,500 SF

Required to report annually by July 1
Making Your EWRB Report

Who Does What

• Building Owner
  – Determine whether you are required to comply and report annually, if applicable
  – If you have multiple buildings on a single property, determine whether you’ll report on each building separately or all together
  – Decide who will be responsible for reporting

• Distributors (utilities)
  – Provide building owners or designated reporting leads, when requested, with whole building consumption data (aggregated information on how much electricity, natural gas or water was consumed or used at the property)
Making Your EWRB Report

Determine How You Will Report

• Building owners have the option to report at the building level or at the property level.
  – Building owners will need to provide information to ENDM on the size and use of the individual buildings so that ENDM can assign an EWRB number to each building.
Making Your EWRB Report

Decide who will be responsible for reporting

- A property owner will need to first designate a reporting lead to submit the report and determine if it needs verification this year. The reporting lead could be:
  - Property owner
  - Property manager
  - Condominium board member or occupant
  - Energy manager
  - Administrative Support person

- A reporting lead requesting data from a utility may be asked to provide documented proof they are authorized to request usage data. Most commonly, utilities ask for a letter signed by the owner or information from a current utility bill.
Year 2 Reporting – Property Types

Largest Property Categories Expected to Report in Year 2*

Number of properties per category

- Residential Condominium: 2,024
- Multi-residential: 1,156
- Multi-residential with Small Commercial: 336
- Standard Industrial: 1,183
- Warehousing: 645
- Industrial Mall: 415
- Other Industrial: 199
- Large Office Building: 637
- Community Shopping Centre: 142
- Neighbourhood Shopping Centre: 139
- Big Box / Power Centre: 138

Note: Totals are approximate, based on April 2018 MPAC data
Year 2 Reporting – Municipalities

Estimated Number of Buildings Reporting in Year 2, by Municipality

Note: Totals are approximate, based on April 2018 MPAC data
1. Get your EWRB ID

The EWRB ID is a unique six-digit number assigned to your property and emailed in the new year. If you did not receive the ID, contact EWRB Support with your property tax bill or condominium corporation utility bill on hand.

2. Collect your reporting information

You can collect energy and water usage data from your invoices, or you can ask your electricity, natural gas and water utilities to provide it. Ask your utilities for your whole-building monthly EWRB data as early as possible, as they may need time to prepare it.

You will need to determine the gross floor area of each property use type in your building. See the list of Portfolio Manager property use types on the Portfolio Manager website.

3. Open a Portfolio Manager account and enter your data

For resources on how to enter your data and submit your report, see the resources on the next page.

4. Verify your Portfolio Manager data (if required)

If your building is 100,000 square feet or larger, verification is required the first time you report, then every five years.

5. Submit your report on the Portfolio Manager EWRG page by July 1

BEFORE YOU SUBMIT YOUR REPORT
Remember to run the Portfolio Manager Data Quality Checker to ensure you are submitting accurate data.
Making Your EWRB Report

1. Get your EWRB ID

- **Have you received a letter from the Ministry?**
  - If YES, you can find your building’s EWRB ID and property Assessment Roll Number on the letter.
  - If NO, either send us the building’s owner’s name, address, telephone number and email, or your contact details OR call ServiceOntario at 1-844-274-0689.

- **If you call ServiceOntario to request your building’s EWRB ID, you’ll need to have some information on hand:**
  - Your property tax bill or condominium corporation utility bill.
  - If you don’t have access to property tax information*, you’ll be asked to email your request for an EWRB ID to ewrbsupport@Ontario.ca along with a scanned copy of an energy or water bill.
  - ServiceOntario will ask you for details to update your building’s contact information, so that future EWRB updates and reminders can be sent directly to you.

* Note: Persons reporting condominium building usage data may not have access to a property tax bill, as these are issued to individual condominium owners.
Making Your EWRB Report

2. Collect your reporting information
   - **Your building’s usage data**
     - You can collect energy and water usage data from your invoices, or you can ask your electricity, natural gas and water utilities to provide it.
     - If tenants pay utility bills, the utility that provides service to the building has to provide the building owner aggregated usage data.
     - Many utilities have posted an “EWRB Data Request” form that building owners must complete and submit to receive their usage data for EWRB reporting.
     - Ask your utilities for your whole-building monthly EWRB data as early as possible, as they may need some time to prepare it.
   - **Your building’s use type data**
     - Determine the gross floor area of each Portfolio Manager property use type in your building.
     - See the list of Portfolio Manager property use types on the Portfolio Manager website.
3. Open a Portfolio Manager account and enter your data

- Gather all the information collected in the previous steps
- Create your account in Portfolio Manager
  - You can access Portfolio Manager using the following link:
  - https://portfoliomanager.energystar.gov/pm/login.html
- Use “Submitting Data Through Portfolio Manager for Ontario’s Energy and Water Reporting and Benchmarking Initiative” as a step-by-step guide to submitting your data
  - The Guide shows you step by step how to add a building in Portfolio Manager, add meters, enter your usage data, and submit the report required for EWRB.
  - You can access this Guide using the following link:
4. Verify your Portfolio Manager data (if required)

- If your building is 100,000 square feet or larger, the report information must be verified by a certified professional the first time you report, then every five years.
  - A qualified person will need to confirm that the data entered into Portfolio Manager matches the data received from utilities, that the gross floor area of the building is correct and that the gross floor area of each property use type is correct. A qualified person could be:
    - in-house building staff member or third-party professional
    - professional qualified to verify the information you must report (e.g. energy usage, water use, gross floor area and other building characteristics)
    - professional with accreditation or certification from a recognized organization in Canada or the United States

- After you have entered all your building information and usage data in Portfolio Manager, remember to run the Portfolio Manager Data Quality Checker to ensure you are submitting accurate data.
Making Your EWRB Report

5. Submit your report on the Portfolio Manager EWRB page by July 1

- Go to the Portfolio Manager EWRB 2018 Reporting Submission page and follow the prompts.
  - Select the properties you want to report – you can report multiple buildings in one submission.
  - The tool will create a report listed in a table of Templates and Reports. In the Actions dropdown menu for that year’s report, select “Send Response”.
  - Complete the data request response form, e-sign the response and click on “Send Data”.
  - For your records, save the automated Portfolio Manager email response.
  - If you change relevant information after submitting, you must re-submit your report.

- Your report is due to the Ministry by July 1 each year.
Final Tips

- Contact EWRB Support by phone at 1-844-274-0689, or by email at EWRBSupport@ontario.ca to get an Ontario EWRB ID - a unique number assigned to each large building owner

- Contact your energy and water utilities well in advance of the EWRB reporting deadline of July 1, to get the information you need to report

- If you know the owner of a large building that has not heard about the EWRB regulation, encourage them to contact EWRB Support. This will help ensure we have current contact information for all large buildings

- Talk to your industry colleagues about the EWRB reporting requirement, and encourage them to contact us for more information

- The EWRB Team encourages you to contact us with any questions, and to share success stories from benchmarking
For More Information

Links and Contacts

EWRB Overview: [https://www.ontario.ca/reportenergywater](https://www.ontario.ca/reportenergywater)

Forms:
- Property Owner Contact Update
- Exemption Notice

Training: [How to use Portfolio Manager](#)

Questions: Call [1-844-274-0689](tel:1-844-274-0689) or email [EWRBSupport@ontario.ca](mailto:EWRBSupport@ontario.ca)
Watch for and re-tweet messages about EWRB @Onenergy

For More Information

ENDM Communications

Ontario Ministry of Energy, Northern Development and Mines
Questions?
The second reporting deadline is July 1, 2019.

Commercial, multi-residential and industrial buildings at least 100,000 sq. ft.

Note: Approximate, based on April 2018 MPAC data