

A COMMON TARGET  
FOR A SUSTAINABLE FUTURE

## PARTICIPANT GUIDE

[buildingenergychallenge.ca](http://buildingenergychallenge.ca)

PRESENTED  
BY



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# PART I – THE BUILDING ENERGY CHALLENGE

## A COMMON TARGET FOR A SUSTAINABLE FUTURE

### *What is the Building Energy Challenge (BEC)?*

The **Building Energy Challenge** is a friendly, stimulating 4-year competition initially launched in 2018. The 2<sup>nd</sup> edition of the BEC is currently underway. The goal is to reduce energy consumption and greenhouse gas emissions in commercial, institutional and multi-residential buildings across Quebec through COLLABORATION, SHARING KNOWLEDGE and INNOVATION. The Challenge is an initiative of BOMA Quebec, and is aimed at owners and managers of buildings and their tenants who are interested in implementing responsible management practices to meet common targets and improve energy performance now and over the long term.

The BEC is a unique opportunity for collaboration between the government, municipalities, building owners and managers, their tenants and users, and energy transition firms to reduce the environmental impact of buildings across Quebec.

### *Who is in charge of the BEC?*

The Building Energy Challenge is designed, administered and managed by [BOMA Quebec](#), the largest association of commercial property owners and managers in Quebec.

### *How long will the BEC program last?*

The 2<sup>nd</sup> edition of the BEC will take place over a 4-year period, i.e. from **2022** to **2025**.

### *What does it cost to register for BOMA Quebec's Building Energy Challenge?*

It's free of charge! Your commitment to the cause is the only price you pay.

### *Why should I participate?*

Did you know that the building sector produces 15.8% of energy consumption-based greenhouse gas emissions (GHGs) in Quebec, and commercial and institutional buildings produce 7%? That's why sustainable development and energy-efficient buildings have become a priority at BOMA Quebec. Building managers and their tenants have a direct influence on energy efficiency and GHG emissions in commercial and institutional buildings.

Fortunately, we are seeing a positive and promising mobilization within our sector, not just here in Quebec but in many countries the world over. Commercial real estate is in the midst of an energy transition.

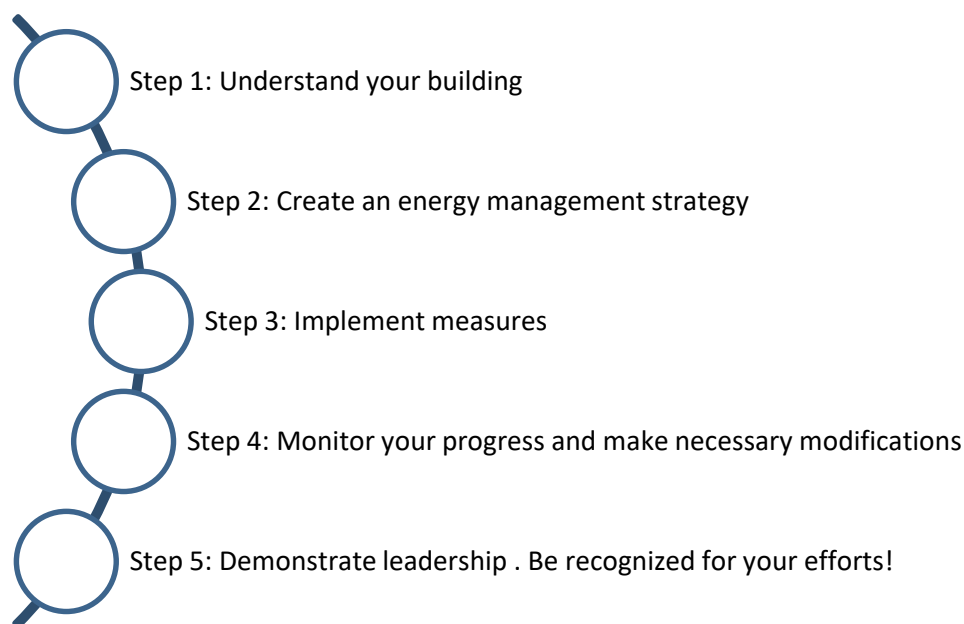
The BEC is your chance to have a real impact on reducing energy consumption and GHG emissions, while also reducing your energy costs. Your participation represents a highly visible, lasting commitment. Once you have registered for the Challenge, many resources and complementary tools

in the Participant's Guide will be accessible, thus helping you reach your objectives. Several awards will be given to highlight the initiatives of the top participants.

### *How do I sign up?*

Go to [www.buildingenergychallenge.ca](http://www.buildingenergychallenge.ca) for more information and to register for the Challenge.

Once you have registered, you will receive a participant's kit for the Building Energy Challenge. It is a guide full of information and simple steps that will help you implement energy efficiency programs. Each of the **5 steps** includes free resources and advice to assist you in reaching your energy reduction objectives and the successful completion of the BOMA Quebec Building Energy Challenge.



## AWARDS AND RECOGNITION

### What types of awards are given?

The BEC awards categories are as follows:

#### 1. GHG TARGET ACHIEVEMENT AWARD

This category is the very foundation of BEC 2.0. The percentage reduction in GHG emissions from fossil-fired buildings will be compared to determine those that have reduced their emissions the most responsibly, i.e. in a manner that takes into consideration energy use during peak electricity demand periods over the course of the previous year. Thus, simply switching from gas to electricity is not a desirable outcome. Analysis of GHG reduction in this category will consider not only the volume of GHGs, but also the overall energy reduction and variations in the building's electrical peak power usage.

AWARD TYPE	INDICATORS/CRITERIA		NOTES
<b>GHG EMISSIONS REDUCTION</b> (awarded annually over the 4-year period)	Largest % reduction in GHG emissions	Site GHG intensity (kg CO <sub>2</sub> e/m <sup>2</sup> ) Must be a responsible reduction, with no impact on energy intensity or electrical power demand	For buildings heated with fossil fuels

#### 2. IMPROVED ENERGY PERFORMANCE AWARD

In this category, the percentage reduction in energy intensity of buildings will be compared to identify those that have reduced their energy consumption the most over the course of the year. In this part of the competition, buildings are grouped with other buildings of similar size, use and energy consumption, and compete with each other. The winners are those that reduce their energy consumption the most in their category.

AWARD TYPE	INDICATORS/CRITERIA		NOTES
<b>ENERGY PERFORMANCE</b> (awarded annually over the 4-year period)	Largest % reduction in energy consumption	Site EUI (GJ/m <sup>2</sup> ) Must be a responsible reduction, not situational (due to occupancy), with no increase in GHGs or electricity consumption	Per sub-category*

\* Sub-categories will be formed to group similar buildings together.

### 3. SUPPLIER MOBILIZATION AWARD

The BEC pays tribute to the efforts made by professionals to improve the energy performance of buildings, for they are crucial players in the energy transition process. They are present at all stages in the life of a building, providing support to building managers for everyday operations and also for improvement projects.

### 4. LEADERSHIP IN ENERGY MANAGEMENT AWARD

This award recognizes the efforts of organizations, buildings or real estate sectors whose management of energy and operations in their buildings has been exemplary. Recipients will have pursued BEC objectives and demonstrated commitment, creativity and consistency while doing so.

#### Baseline for Energy and GHG Targets

The year 2021 is the baseline year that will serve as the starting point for setting your goals for improving energy efficiency and reducing GHG emissions. It will also serve as a benchmark for evaluating your future efforts and overall performance. The energy target is a 10% reduction in consumption, while the GHG target is a 20% reduction in emissions.

#### *How are energy savings verified?*

Savings will be validated by BEC auditors who are energy efficiency specialists. They reserve the right to conduct additional audits before granting awards. At the end of each year, you will receive a questionnaire from BEC, along with your reports for the current year. The questionnaire will update your registration information and ask about current practices affecting your energy performance. That information will help you qualify your results for the auditors.

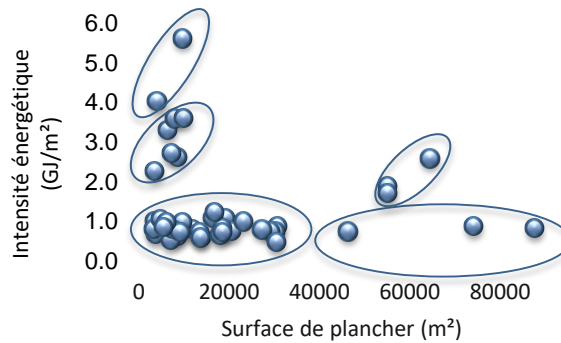
#### *Can I apply for more than one award?*

When you register with the BEC and submit your data by the deadline, you will automatically be a candidate for all the awards.

#### *When determining candidates for an award, how is my building compared to other buildings?*

The evaluation criterion for the IMPROVED ENERGY PERFORMANCE Awards is [energy intensity \(EI\)](#). The evaluation criterion for the GHG TARGET ACHIEVEMENT Awards is the percentage reduction in GHG emissions in kg CO<sub>2</sub> e/m<sup>2</sup>.

The IMPROVED ENERGY PERFORMANCE and GHG TARGET ACHIEVEMENT Awards will be given by building type and sub-category. For comparison purposes, buildings are ranked by size, current performance and type of heating. It is the basis of the benchmarking that establishes the peer group for the awards. The following graph provides an example of the sub-categories or peer groups for the Office Buildings category.



The above graph shows 5 sub-categories. They are based on building size and performance at the time of joining the competition (expressed as energy intensity in gigajoules per square metre), and are determined once participants are registered for a competition year. That way, participants are not disadvantaged by the time they join the competition or by unfair competition, as each year they will only compete against other participants of similar performance in their size category.

### *How and where will the awards be given?*

An awards night is held each year to highlight the results of the winning buildings. Winners in each category will be selected based on the energy savings or GHG reductions, as verified through the process explained above.

Every year, certificates of participation are awarded to honour your commitment. The certificate is given to all participants whose buildings are registered, and whose requisite data are submitted by the prescribed deadline.

A GRAND GALA is held at the end of each edition to announce the winners and pay tribute to their buildings.

## PARTICIPATION AND ELIGIBILITY

### *Who can participate?*

The competition is open to all owners and managers of commercial, institutional and multi-unit residential buildings in Quebec. Everyone in this sector is thus invited to demonstrate leadership and to implement concrete measures to improve energy performance and reduce the carbon footprint of their buildings.

The [building categories](#) eligible for the BEC are as follows:

- Office buildings
- Retail buildings
- Education sector buildings
- Health care buildings
- Mixed-use buildings
- Multi-unit residential buildings
- [Universal buildings](#)

### *Do I need to be a member of BOMA Quebec or to become one in order to participate?*

No. The Challenge is open to both members and non-members. We do, however, encourage you to join the association in order to benefit from all the advantages that BOMA offers (professional development programs, networking, best practices and defending the interests of the real estate industry).

### *Does my building need to be certified BOMA BEST® in order to take part?*

No. The Challenge is open to both certified and non-certified buildings. We encourage you, of course, to seek certification. For more information about BOMA BEST®: [<https://www.boma-quebec.org/boma-best-en>].



### *What is the deadline for signing up for the BEC?*

You can register at any time during the 4-year period. But in order to qualify for annual awards, you must comply with the deadlines for each given year.

YOU CAN REGISTER FOR THE BEC AT ANY TIME		
Year 1 (2022)	Deadline for registration and for sharing data for Year 1: <b>May 31, 2023</b> Awards gala: autumn 2023	Energy data: January 2021 to December 2022
Year 2 (2023)	Deadline for registration and for sharing data for Year 2: <b>May 31, 2024</b> Awards gala: autumn 2024	Energy data: January 2022 to December 2023
Year 3 (2024)	Deadline for registration and for sharing data for Year 3: <b>May 31, 2025</b> Awards gala: autumn 2025	Energy data: January 2023 to December 2024
Year 4 (2025)	Deadline for registration and for sharing data for Year 4: <b>May 31, 2026</b> FINAL GRAND GALA: autumn 2026	Energy data: January 2024 to December 2025

In order to be eligible for the 2022 awards, registration of a building must be completed and information shared with the BEC before May 31, 2023. The reference year is 2021. It will serve as the point of departure for establishing your objectives for improving your building's energy efficiency and reducing GHG emissions, and also as the point of comparison to evaluate your future efforts and your overall energy performance. Take advantage of 2023 to prepare to implement your projects and to encourage tenants and colleagues to join you in the competition. The tools provided by the BEC will help you achieve those objectives. If you register after 2022, your reference year will be the year preceding the current year.

For subsequent years, registration of a building must be completed and data shared with the BEC by May 31 of the current year.

### *My portfolio also includes buildings outside the province. Can those buildings be entered in the competition?*

The program is offered only to buildings located in Quebec. Other similar initiatives are underway in [Toronto](#) and [Manitoba](#). Visit their websites for more information.

### *I am already participating in another initiative or another challenge. Can I still take part in the BEC organized by BOMA Quebec?*

Certainly. You can participate in several initiatives and competitions that have the same goals and objectives.

## PARTICIPANTS' DATA

### *Do I need to submit energy consumption data to participate?*

Yes, data must be submitted. You must indicate energy consumption data (e.g. electricity, natural gas) over the **12 months** of the year preceding the prescribed deadline. See the [What is the deadline for registering in the BEC?](#) section for more details.

### *How do I submit energy consumption data for my buildings?*

Throughout the Challenge, measuring participants' performance and making comparative analyses of energy consumption will be carried out by means of the free online tool provided by Natural Resources Canada, the [ENERGY STAR Portfolio Manager \(ESPM\)](#). When [signing up for the BEC](#), you must create an account for your building using that platform.

Consult the [comparative energy analysis](#) section of the guidebook for instructions on how to enter your data. It lists the steps to follow, from creating your account to sharing data with the BEC.

- › If you are using the ESPM tool for the first time, follow [steps 1 to 4](#).
- › If you already have an ESPM account for your building, go directly to [step 3](#). The instructions will help you synchronize your account with the BEC (a necessary step to become eligible for awards and distinctions).

The ESPM tool also provides free [training resources](#) and webinars for optimal use of the software.

### *What do I do if my tenants have their own meters?*

If that is the case, we suggest you encourage your tenants to create an ESPM account and share their profiles with you to ensure that all energy consumption in the building is taken into account. Consult [step 2.2](#) of the comparative energy analysis for information on creating rental space in the ESPM tool, and how to link rental properties to the whole building.

### *What other information must be entered into the ENERGY STAR Portfolio Manager in order to take part in the BEC?*

In addition to data on energy consumption, the following data must also be provided:

- [Building type](#)
- [Gross floor area](#)
- [Electricity bills](#)
- [Occupancy rate](#)
- [Types of use](#)
- [Operating hours](#)

Your energy consumption data and your gross floor area (GFA) will be used to obtain the energy intensity (GJ/m<sup>2</sup>) and GHG emissions intensity (t-GES/m<sup>2</sup>), the indicators used to compare the energy performance of buildings participating in the BEC.

Your details about property use (such as occupancy rate, type of use and hours of operation) will be verified to determine if your energy reduction is related to energy efficiency measures and not to changes in the use of your property. You must update these details for each year of the competition.

### ***What is site EUI?***

*Site energy* is the total amount of heat and electricity consumed by a building, as indicated in your utility bills. *Site EUI* is the energy consumption of the site divided by the surface area of the property in gigajoules (GJ) per square metre. That single common metric allows for comparisons of energy consumption in buildings of different sizes.

### ***What if I don't submit my energy consumption data by the deadline?***

Your building will be excluded from consideration for the awards bestowed that year.

### ***What if my registration is incomplete?***

Participants can fill out a registration form in several stages. For your application to be approved, however, it must be complete, i.e. it must have all the required data. All incomplete applications will be excluded.

## PUBLICITY, PROMOTION, SPONSORSHIPS

### *What sort of publicity will my organization receive by participating in the BEC?*

By taking part in the Building Energy Challenge, participants agree to share data entered in their Energy Star Portfolio Manager accounts for the purpose of evaluating their energy performance. BEC may share that data with its partners, in a confidential, anonymous manner, to create a statistical census on the energy performance of Quebec buildings.

BOMA Quebec will not share or publicize a participant's data without his or her explicit consent. If you grant consent, your accomplishments may be shared with other participants and with the industry in general by means of special participant profiles, case studies, the BEC website, etc.

The results of the program will be shared via existing marketing and communication channels such as newsletters, industry magazines, social media, etc.

### *Will I receive tools that I can use to promote my BEC initiatives?*

Yes. A visibility kit will be given to participants once the ESPM data has been completed and their participation in the BEC becomes official. Participants are encouraged to highlight their leadership and their participation in the Challenge, and are free to make that choice or not.

The kit will include items such as web banners, other banners and suggestions for messages to post on social media, visuals to add to e-mail signatures, BEC logos in different formats, examples of letters sent to tenants, self-supporting banners to display in building lobbies, etc. If a participant chooses to produce promotional elements, the cost is to be borne by the participant.

### *Can I become a BEC sponsor?*

Yes. There are many ways of supporting the BEC. For more information or to receive the BEC partnership plan, contact executive director Linda Carbone at **514 282-3826, extension 2012**.

## OWNERS

### *As an owner, can I enter a building in the competition, but not any tenants?*

Yes, you can. However, we encourage you to convince at least one tenant to sign up, since collaboration between owners and tenants is one of the fundamental principles of the program. Moreover, the energy consumption of tenants represents a substantial portion of your building's energy consumption, and your achievements in the building's common areas could be weakened without the commitment of your tenants.

### *As an owner, how can I convince my tenants to sign up for the BEC?*

They have everything to gain by supporting you. There are several advantages to participating as a tenant: access to tools and targeted resources that could help reduce their energy bill; seminars and webinars on a multitude of subjects linked to the energy performance of buildings; information on government grants for retrofits, energy audits, etc.; a network of building industry professionals; sharing best practices and recognition for improved energy performance as a tenant. Collaboration between owners and tenants is essential when working to reduce the operating costs of a building.

### *What can I expect from my participation in the BEC, and how does it benefit me?*

There are many advantages to participating in the program as an owner: access to tools and resources that can help reduce your energy bills; seminars and webinars on a multitude of subjects linked to a building's energy performance; information on government grants for retrofits, energy audits, etc.; access to a network of building sector professionals; sharing best building management practices plus an awards program for improved energy performance.

Improving the energy efficiency of your building will reduce not only your operating costs, but will also attract and help tenant retention by improving their well-being and productivity.

Everyone wins.

### *My building is of recent construction and meets LEED standards. Why should I participate?*

A building constructed according to higher standards is no guarantee of better performance. In order to maximize the return on your investment, you should also pay attention to how you manage and operate your buildings on a daily basis, and explore ways of continually improving building performance. In fact, LEED asks you for your policies in that regard.

## TENANTS

### *I am a tenant. Can I sign up without the owner of the building?*

The only way to participate without the owner of your building is if your consumption of electricity and natural gas is measured and billed separately. If that is not the case, you will need the data from an individual sub-meter and permission from the owner so that the distributor can revise the building's meter in order to record reductions for the purposes of BEC objectives. Even if you are eligible to participate yourself, you are strongly encouraged to convince the owner to register, since collaboration between owners and tenants is one of the fundamental principles of the program.

### *I am a tenant. How can I convince the owner to register for the program?*

Tell him or her about the benefits of the BEC. There are several advantages to taking part in the program as an owner: access to tools and resources that can help reduce the energy bill, such as seminars and webinars on a multitude of subjects linked to a building's energy performance; sharing best building management practices, and also an awards program for improved energy performance. Owners can make improvements to the building, but tenants can also easily contribute to reducing operating expenses.

### *As a tenant, how do I benefit from participating in the BEC?*

You can play an important, tangible role in reducing the environmental impact of the building where you are renting space. Meet with other tenants and collaborate with them and with the owner, sharing best practices and making your premises a better space for working and learning. As a tenant, you will also have access to tool kits, informative and educational webinars and other resources to help you and your team. Improving the energy efficiency of your premises will reduce not only your operating costs, but will also improve your well-being and your productivity.

## PROGRAM MANAGEMENT

If you have any questions or requests for support, please contact the persons listed below:

### REGISTRATION AND INFORMATION

Antoine Gérin-Roze

Coordinator, Building Energy Challenge

514 282-3829 ext. 2006

[agerinroze@boma-quebec.org](mailto:agerinroze@boma-quebec.org)

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## PART II – SHARING YOUR ENERGY DATA WITH THE BEC

### OVERVIEW

Sharing your energy consumption data with the Building Energy Challenge is mandatory. It is necessary information that allows us to consider your annual energy results, so as to recognize improvements made and carry out comparative analyses. Sharing is done via the [ENERGY STAR Portfolio Manager \(ESPM\)](#).

**For the second edition of the BEC (BEC 2.0), all those who are subject to City of Montreal regulations** for mandatory disclosure of energy consumption data and who are in compliance with ESPM need only to share the data as explained in Section 3 of this section of the guide. For those who are not subject to the above by-law, follow the instructions in this document to enter your data and share it with the BEC.

There are 4 steps:



If you already have an ESPM account, go directly to step 3.

To register your building, you will need the following information:

#### Basic information (required for the BEC)

- [Type of building](#) (main function)
- Name, street address, postal code
- Year of construction
- [Gross floor area](#)
- [Occupancy rate](#)

#### At least 12 months of energy consumption data (required for the BEC):

- Public utility bills specific to the property for all sources of energy purchased and in place.

#### Details of property use:

- [Types of use](#) (required for the BEC)
- [Operating hours](#) (required for the BEC)
- Percentage of gross floor area that is air conditioned
- Percentage of gross floor area that is heated
- Number of workers, etc.

Use the [data collection assistant](#) in Portfolio Manager to generate a PDF file and rapidly collect data based on the type of property owned.



## APPENDIX 1 - BUILDING TYPES

The competition is open to all owners and managers of commercial and institutional buildings in Quebec. The major building categories recognized for the BEC are as follows:

- **Office Buildings**

- Office
- Medical office
- Veterinary office

- **Retail**

- Mall
- Retail store
- Car dealership
- Convenience store
- Wholesale club/Supercentre
- Supermarket/Grocery store

- **Education**

- Adult Education
- College/University
- K-12 School
- Pre-School/Daycare
- Vocational School
- Other

- **Healthcare**

- Walk-in Surgical Clinic
- Hospital
- Medical office
- Outpatient Rehabilitation/Physical Therapy
- Residential Care Facility
- Senior Care Residence
- Urgent Care/Clinic/Other outpatients

- **Mixed Use**

- **Multi-residential Buildings**

This definition applies only to multifamily housing. Buildings that meet the definition for a Hotel, Residence Hall/Dormitory, Senior Care Residence, Single Family Home or other type of lodging or residential facility must use the Universal Module (see definitions in Energy Star Portfolio Manager).

- **Universal Buildings\***

[Click here](#) for building definitions.

\* The Universal Building category covers a broad range of establishments and building types. Any buildings that do not fit into the abovementioned categories will be listed by the BEC in the Universal Building category.

## Universal Buildings

- **Other**
- **Food Sales & Services**
  - Restaurant/Bar
- **Lodging /Residences**
  - Barracks
  - Hotel
  - Single Family Homes
  - Residence Hall/Dormitory
  - Senior Care Residence
  - Other
- **Banking/Financial Services**
  - Financial office
  - Bank branch
- **Technology /Science**
  - Data centre
  - Laboratory
  - Other
- **Entertainment/Public Assembly**
  - Convention Centre
  - Performing Arts
  - Movie Theater
  - Recreation
  - Museum
  - Social/Meeting Hall
  - Stadium
  - Other
- **Warehouse/Storage**
  - Self-Storage facility
  - Warehouse/Distribution centre
- **Religious Worship**
  - Worship Facility
- **Public Utilities**

- Energy/Power Station
  - Wastewater Treatment Plant
  - Drinking Water Treatment & Distribution
- **Public Services**
  - Library
  - Fire Station
  - Mailing Centre/Post Office
  - Courthouse
  - Police Station
  - Social /Meeting Hall
  - Transportation terminal/Station
- **Services**
  - Data centre
  - Repair services (cars, shoes, locksmith, etc.)
  - Personal services (health/beauty, dry cleaning, etc.)
  - Other
- **Parking**
  - Parking
- **Manufacturing /Industrial**
  - Manufacturing or Industrial Plant