

Benchmarking energy and water with BOMA BEST

Energy and water consumption data can be entered in the BOMA BEST Online Portal or in an existing ENERGY STAR (or ES) account. In either case, it is necessary to specify your synchronization preference so that ENERGY STAR methodology can be used to calculate performance metrics.

Follow the instructions in this present document if you prefer to enter your energy and water consumption data in the BOMA BEST Online Portal.

If you prefer to enter your data directly into ES instead, follow these instructions.

Overview

There are four steps to the process, all occur within the BOMA BEST Portal:



- 1. Identify at least one (1) space type in your building (for Office or ENERGY STAR Score-eligible Universal buildings)
- 2. Create meters for energy and water
- 3. Enter your consumption information for energy and water
- 4. Synch your account to Push with ENERGY STAR and enter all required information



1. Identify at least one (1) space type

- 1.1. Log in to you BOMA BEST account (<u>https://boma.credit360.com</u>)
- 1.2. Click on **Property** to show the My Properties list.

No. 11		ID	Street Addre	Town	Gross	Asset ty	Status	Managm	Pro	Me	Cer	Cer	Da
Create property	, Edit users 현	Export	bowing proper	e report 4	2 Clear fil are Active	iter E <u>Add filte</u>	r criteria 🕞				<u>Results</u>	per pag	e 🤄
My Properties Properties	Status Cr	eate ne	w Fund typ	es Fu	nds M	Vanageme	ent compa	anies Be	nchma	arking			
DATA ENTRY	PROPE	RTY	ANALYSIS	5	AUDIT	MANAGE	MENT	FORM	IS	AD	MIN		

- 1.3. Click on the building name.
- 1.4. You are now on the building's **Property Characteristics** page.
- 1.5. Click on the **Spaces** tab.

		_		_			
Certifications	Questionnaire	Payment	Spaces	Energy Consumed	Energy Produced	Water	

1.6. Select the main space-type from the dropdown. For Office buildings, select the space type "Office". We recommend creating only a single space that represents the entire building's gross floor area. More details on space types and whether or not to create them are details in the <u>FAQ</u> in section 3.3.2. In regards to whether or not you should include a space specifically for "Parking", see section 3.3.8 of the <u>FAQ</u> for details.



1.7. Enter the name of the space (something that is clear to you).

Certifications	Questionnaire	Payment	Spaces	Energy Consumed	Energy Produced
New space					
	Na	ame: Office S	ipace		0
	Space t	type: Office		¥ ()	
	Ac	tive: 🔽			
	Decommission of	date:			
		Save	or <u>Cancel</u>		

- 1.8. Leave Active ticked.
- 1.9. Click Save. Space-related metrics will now be generated.
- 1.10. For the Office space-type, complete all metrics that are listed (with or without an asterisk). Click on **Click to add data** to complete the metric. For any other space-type, complete "Building Gross Floor Area (Space Metric)"; the others are optional.

Certifications	Questionnaire	Payment	Spaces	Energy Co	nsumed	Energy Pr	oduced	Water
Office Space	Ce 🛛 Office							Effe
Building Gro	ss Floor Area (Spac	e Metric)			Click to a	add data		
🕐 Number of O	Computers			•	Click to a	add data		
Number of V	Norkers				<u>Click to a</u>	add data		

1.11. Within each metric, enter the values required. You must enter an **effective as of** date that is older in time than the first date of the energy or water consumption data that will be entered. <u>Tip</u>: Pick an "**effective as of**" date that is very old and use this date for all future entries. Click **Add**.

a (Office Space 🗆 Office		Effective as of	
٢	Building Gross Floor Area (Space Metric)			Close
	Value	Note	Effective as of	
	200,000 Square Feet		January 31, 2017	Add



2. Create meters for energy and water consumption

You must now enter your building's consumption data.

2.1. From the **Property Characteristics** page, click on the **Energy Consumed** tab.

Property ch	aracteristics Change)	
	Address: Property Type: Gross Floor Area (for ENERGY STAR): ENERGY STAR Score: Total GHG emissions: Water Use Intensity : Weather-normalized Site Energy Use Intensity:	Canada Office - Office 99,999 Square Feet - - -
Certification	s Questionnaire Payment Spaces Ene	rgy Consumed Energy Produced Water

2.2. Before entering the data, you must first create a meter. Complete the meter creation form as follows:



Certifications C	uestionnaire)	Payment	Spaces	Energy Consumed
New meter: Ene	rgy Consu	med		
a. Meter nam	Enter nar	ne		
	This is the na	ame that will be	e shown to us	ers to refer to your meter.
d	Enter reference The reference	ence te is optional bu	ut we recomn	nend entering the number us
С. Тур	e:			~
d. Un	t:		~	
e. What space does th meter supply	is/?	¥		
f. How will the readir data be entered	?:	~		
g. Installation dat	e: January 31,	2017	× 🖻	
h. Activ	e: 🔽			
Disposal dat	e:			
Not	e:			
	Save	r <u>Cancel</u>		

- a. *Meter name*: Enter the meter name. For the sake of clarity (for you and the verifier), select an obvious name, for example "Grid electricity meter".
- b. *Reference*: If your meter has a reference number (internal), enter it here.
- c. *Type*: Select the type of meter from the dropdown.
- d. Unit: Select a Unit that has a blue ENERGY STAR logo beside it.



- e. *What space does this meter supply*? <u>Always</u> select **Whole building**, even if specific spaces have been identified in the "Space" tab.
- f. *How will the reading data be entered*? Select **Arbitrary period** to enter the amount of energy or water consumed between two specific dates. (**Do not select** Point in Time, this will cause an error).

WARNING: You cannot change this selection once you have actually entered data.

- g. Installation date: Use the same "as of" date that was selected in step 1.11.
- h. *Active*: Leave this ticked. If the meter becomes inactive and you no longer want the consumption to be included in your overall intensity readings, unclick this box.



2.3. Click on the **Water** tab and perform the same steps to create a water meter.

Address:1 Dundas Street West, Suite 1801, Torom CanadaProperty Type:Office - OfficeGross Floor Area (for ENERGY STAR):200,000 Square FeetENERGY STAR Score:-Total GHG emissions:0 Metric Tons CO2eWater Use Intensity :-Weather-normalized Site Energy Use Intensity:-	Property c	haracteristics Change	a)						
Property Type:Office - OfficeGross Floor Area (for ENERGY STAR):200,000 Square FeetENERGY STAR Score:-Total GHG emissions:0 Metric Tons CO2eWater Use Intensity :-Weather-normalized Site Energy Use Intensity:-		Address:			1 Dundas St Canada	reet West, Suite 18	01, Toronto,		
Gross Floor Area (for ENERGY STAR):200,000 Square FeetENERGY STAR Score:-Total GHG emissions:0 Metric Tons CO2eWater Use Intensity:-Weather-normalized Site Energy Use Intensity:-		Property Type:			Office - Offi	ce			
ENERGY STAR Score:-Total GHG emissions:0 Metric Tons CO2eWater Use Intensity:-Weather-normalized Site Energy Use Intensity:-		Gross Floor Area (fo	or ENERGY S	TAR):	200,000 Squ	200,000 Square Feet			
Total GHG emissions:0 Metric Tons CO2eWater Use Intensity :-Weather-normalized Site Energy Use Intensity:-		ENERGY STAR Score:			-	-			
Water Use Intensity : - Weather-normalized Site Energy Use _ Intensity:		Total GHG emission	ns:		0 Metric Toi	ns CO2e			
Weather-normalized Site Energy Use Intensity:		Water Use Intensity	y:		-				
	Weather-normalized Site Energy Use Intensity:								
Certifications Questionnaire Payment Spaces Energy Consumed Energy Produced Water	Certificatio	ns Questionnaire	Payment	Spaces	Energy Consumed	Energy Produced	Water		

2.4. Click on the **Produced Energy** tab and perform the same steps to create an energy produced meter (if applicable) – this is not necessary for obtaining points in BOMA BEST.



3. Add energy and water consumption information

Now that the meter has been created, it is time to add data.

3.1. Click **Open** on the meter.

Whole building				
Description	Reference	Туре	Last reading Last reading value date	2
Fuel Oil Meter 🗹		Fuel Oil No 1 (Energy)	Click to add data	V Open
Test diesel		Diesel (Energy)	August 25, 2016 August 25, 2016 Assumptions)	erty 🔺 Close
		Reading	Consumption	
Estimate? Read	d ing date At	(Litres (Canadian Property ssumptions))	(Litres (Canadian Property Assumptions))	
± Augu	st 25, 2016	100		Edit
Add meter read	ling		Sho	ow earlier readings

3.2. Click on Add meter reading

- 3.3. Indicate whether this data is an estimate or not. Please note that estimates cannot be accepted for calculating ENERGY STAR Scores.
- 3.4. Identify the consumption period and enter the data.
- 3.5. Enter 24 consecutive months of energy consumption. Twelve months of data are required in the water section to obtain a water use intensity (WUI).
- 3.6. Users are encouraged to continuously enter consumption data in this section as it becomes available. The performance metrics (ENERGY STAR Score and Energy Use Intensity) will also change as a result of the new data.



4. Synchronize your account to Push with ENERGY STAR

4.1. From the building's Property Characteristics page, click Change.

Office Energy Test	
Property characteristics Change)	

4.2. Check that an accurate (approximate) value has been entered in Year Built.

* Local BOMA Association where	BOMA New Brunswick and Prince Edward Island
the building is located:	
* BOMA Membership Status	Member 💙
where building is located:	
Year Built:	2007 Year as of January 1, 2004 Changes

4.3. Enter an "as of" date. Use the same date that was selected in step 1.11.

Year Built:	2007 Yeai	as of January 1, 2004	Changes

4.4. Scroll down to the **Location** section. Enter an accurate and complete address by clicking on **Look up location** (necessary for the system to determine the nearest weather station).



4.5. Scroll down to the ENERGY STAR section.





4.6. Select **Push to Energy Star**. Leave the field called "Portfolio Manager ID" blank.

energy star	No synchronization Pull from Energy Star		
	Data will be pushed from cr360 into Energy Star for this property. /Data calculated in Energy Star may be simultaneously pulled.)		
	Not yet synchronized		
	The Portfolio Manager ID is currently empty. This means that a new building will be created in Energy Star when the first synchronization takes place.		
	Portfolio Manager ID:		

- 4.7. Scroll to the **Building Characteristics** section. Information in three areas is required:
 - Gross Floor Area (for ENERGY STAR)
 - Occupancy Percentage
 - Number of Buildings
- 4.8. Scroll to **Gross Floor Area (for ENERGY STAR)**. Enter the Gross Floor Area that should be used to calculate your energy and water performance (can differ from the amount entered to calculate fees).

Buil	ding characteristics			
	Gross Floor Area (for ENERGY STAR):	Enter number Square Feet 🔹 as of		
'	Occupancy Percentage:	Enter number as of		I
	Number of Buildings:	please choose	▼ as of	

The value entered here MUST include the following spaces:

- Lobbies
- Tenant Areas
- Common Areas
- Meeting Rooms
- Break Rooms
- Atriums (ground floor only)
- Restrooms
- Elevator Shafts
- Stairwells
- Mechanical Equipment Areas
- Basements
- Storage Rooms

The following spaces must NOT be included in this value:

- Exterior spaces
- Balconies
- Patios
- Exterior Loading Docks
- Driveways
- Covered Walkways
- Outdoor Courts (Tennis, Basketball, etc.)
- The interstitial plenum space between floors
- Crawl Spaces
- Parking (indoor or outdoor).



4.9. Enter an "as of" date. Use the same date that was selected in step 1.11.

Gross Floor Area (for ENERGY	Enter number	Square Feet	~	as of	•
STARJ:					

4.10. Scroll to **Occupancy Percentage**. Enter the occupancy in percentage.



- 4.11. Enter an **"as of"** date. Use the same date that was selected in step 1.11.
- 4.12. Scroll to **Number of Buildings**. Use the dropdown to select the description that best fits your building. If you have data for your building exclusively (even if the building is part of a larger complex, select "One: My property is a single building". **NOTE**: Performance values may not be generated if you select "None" or "More than One".

Ζ.	occupancy rencentage.	as 01			
	Number of Buildings:	please choose	×	as of	3

- 4.13. Enter an **"as of"** date. Use the same date that was selected in step 1.11.
- 4.14. Click **Save** at the bottom of the page
- 4.15. Within 24 hours, the property should perform its synchronization. Once this has been completed, you will see performance metrics in the Summary grey box on your **Property** Characteristics page. Synchronization is performed automatically every 24 hours. <u>Only the values that appear in this summary can be used in the BOMA BEST questionnaire</u>. The verifier will request to review this summary during the verification.

Property	characteristics Change)		
	Address:	1400 Park Rd S, Lakeview,	Oshawa, ON, L1J 8M5, Canada
	Property Type:	Enclosed Shopping Centre	
	Gross Floor Area (for ENERGY STAR):	400,000 Square Feet	_
	ENERGY STAR Score:	-	
	Total GHG emissions:	0 Metric Tons CO2e	
	Water Use Intensity :	2.18 m^3/m^2	
	Weather-normalized Site Energy Use Intensity:	0.000 GJ/m^2	



4.16. Transcribe these values into the appropriate fields in your BOMA BEST questionnaire.

Select your preferred unit	GJ/m2/year
What is the calculated weather- normalized site Energy Use Intensity (EUI) for this building?	0.02 Attach files

For more details on exactly what data must be provided to obtain performance values, consult the FAQ.

Have questions about this process? Refer to the FAQ on the following pages.



FAQ

1. What kind of information is necessary to obtain the weather-normalized site Energy Use Intensity (EUI), Water Use Intensity (WUI) and ENERGY STAR Score (if applicable)?

Consult the ENERGY STAR Portfolio Manager FAQ for BOMA BEST buildings here.

In short, to obtain a weather-normalized site EUI you must provide 24 consecutive months of energy consumption data, at a minimum. Consumption must be entered for each month (cannot be a bulk amount representing the complete 24-month timeframe). Enter consumption information for all fuel types used in the building. The entered data must not be any older than the past 36 months.

To obtain a WUI, enter water consumption data representing 12 consecutive months, at a minimum, for all meters (indoor and outdoor). The entered data must not be any older than the past 18 months nor should it represent consumption during periods of major renovations.

To obtain an ENERGY STAR Score, your building must be eligible (see the above FAQ) and your account must contain energy consumption data for 12 consecutive months, at a minimum.

2. Why haven't values appeared in the Summary grey box on the Property Characteristics page?

There could be a few reasons for this:

- a) You have selected Push in the ENERGY STAR section but 24 hours have not elapsed. Occasionally this may take more time.
- b) You selected Push in the ENERGY STAR section but also entered a Portfolio Manager ID (instead of leaving that space blank). This confuses the system and it is not able to correctly *push* the data. Delete the Portfolio Manager ID and click "Force refresh".
- c) The "as of" date for Year Built and Energy Star Gross Floor Area is not a date this is before your first meter entry. Modify the "as of" date. Click "Save" on the bottom of the Building Registration page.
- d) Errors have been found with the synching. Sometimes errors will appear in the ENERGY STAR section of the registration page. If you see an error, click on it. Follow the instructions to resolve them then click "refresh".

Energy Star	
Energy STAR	No synchronization Pull from Energy Star Push to Energy Star Data will be pulled from Energy Star into cr360 for this property. Last synchronization: July 19, 2017 12:41:04 PM 1 errors



 e) If it none of the above have resolved the issue, and you have waited 24 hours since the last "Refresh", email <u>info@bomabest.org</u> (include the name of your building as it appears in the BOMA BEST portal).

3. Why is there a Portfolio Manager ID on my building's registration page?

Once the steps outlined in this document have been completed, the property will automatically synch with ENERGY STAR in order to generate the correct performance values within the BOMA BEST Online Portal. This auto-creates an ENERGY STAR account for the building in Portfolio Manager. You do not have access to this but it must exist in order to calculate your building's performance. You will see the auto-created account number in the ENERGY STAR section of the registration page.

4. I have more questions about ENERGY STAR and BOMA BEST

Much more information on benchmarking in BOMA BEST is available in the ENERGY STAR FAQ.