



Benchmarking instructions for buildings **without** an Energy Star Portfolio Manager account

Please note that due to unforeseen complications integration with ENERGY STAR is not yet complete. In order to obtain your ENERGY STAR Score (if applicable), Energy Use Intensity (Weather-normalized for Site) and Water Use Intensity it will be necessary to create an account directly in [ENERGY STAR Portfolio Manager](#). Once this integration has been completed we will post a notification on the homepage of the BOMA BEST online portal. These instructions will then be updated. We apologize for this inconvenience.

To get started

If you have never used the ENERGY STAR program before, a how-to guide is available [here](#). Many hints and tips provided in live time.

An FAQ on troubleshooting the ENERGY STAR system is available [here](#).

Note: In order to obtain a weather-normalized Site Energy Use Intensity value, meters must be created for each month (as opposed to a single meter representing consumption over 12 months).

How to find the values needed in the BOMA BEST questionnaire

These values will be (mostly) automatically generated in the BOMA BEST Online Portal once the integration is complete. For now, please follow these steps to find the performance values you need to complete your BOMA BEST questionnaire.

1. ENERGY STAR Score (Office and eligible-Universal buildings only)

Once you have entered your energy consumption for 12 consecutive months and have specified that all meters created should be included in the energy metrics, you will see the ENERGY STAR Score on your building's Summary page. Enter this number in your BOMA BEST questionnaire when requested. If the building is not eligible, N/A will appear instead (this is expected).

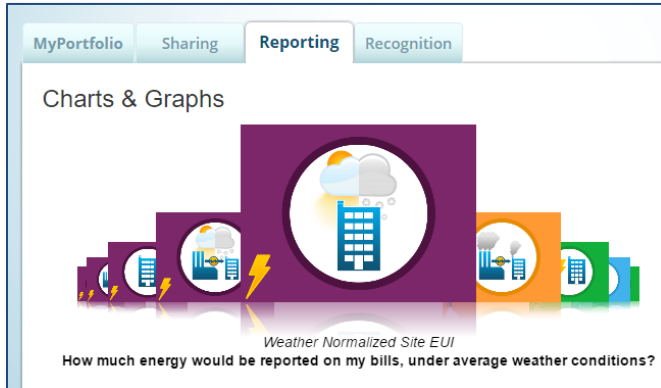
The screenshot shows the Energy Star Portfolio Manager interface for a building named "BOMA Test Building". The building address is "1 Dundas Street West Suite 1801, Toronto, ON M5G1Z3" and the Portfolio Manager Property ID is "5098492". The building was built in 1994. The interface includes tabs for "MyPortfolio", "Sharing", "Reporting", and "Recognition". A message states "Not eligible to apply for ENERGY STAR Certification". The "ENERGY STAR Score (1-100)" section is highlighted with a red box, showing a "Current Score: 67" and a "Baseline Score: 100". The bottom navigation bar includes tabs for "Summary", "Details", "Energy", "Water", "Waste & Materials", "Goals", and "Design".



2. Weather-normalized Site Energy Use Intensity (EUI)

BOMA BEST uses Weather-Normalized Site Energy Use Intensity to assess energy consumption because this value allows a better comparison of buildings across the country since it normalizes for differences in weather. This value does not appear in the Metric Summary page of the building (as do Site EUI and Source EUI). It only appears in a specialized report. To generate the report:

- a. Click on the “Reporting” tab



- b. Click on “Create New Template”
- c. Complete the “Create a Report Template”.
 - i. Name the report (e.g. “Weather-Normalized Site EUI”)
 - ii. For the timeframe, select Single Year (enter the month and year of the last bill entered).
 - iii. Select the property(ies) in question.
 - iv. Click on “Select Information & Metrics”, select “Energy Performance Metrics” on the left and then “Weather-normalized Site EUI” from the list (**not** Weather-normalized Source EUI). Click “Apply Selections”.
 - v. Save Template
- d. Returning to the Report page, find the template report you have just created. Under Action select “I want to generate new report”.

Templates & Reports (10) Create a New Template			
Name	Status	Action	
Weather Normalized Site EUI	Generated: 2/09/2017 2:06 PM	<input type="text" value="I want to..."/>	
Performance Highlights	No Report Generated	<input type="text" value="I want to..."/> View Current Report Download Current Report in Excel Download Current Report in XML	
Energy Performance	No Report Generated	Generate New Report Edit this Template	
Emissions Performance	No Report Generated	Share this Template Request Data using this Template	
Water Performance	No Report Generated	Delete this Template <input type="text" value="I want to..."/>	

- e. The system will generate the report, now on the same report, select “I want to View current report”.



- f. You can now see your building’s Weather-Normalized Site EUI in kBtu/ft^2 (If you see N/A instead, consult [this page](#) for troubleshooting. Among other reasons, you must have entered your consumption in 12 separate entries, not in a single entry).
- g. The final step is to convert your Weather-Normalized Site EUI from kBtu/ft^2 into kWh/ft^2 . Simply enter your kBtu/ft^2 (“kiloBTU”) value in the calculator provided in the link to obtain the “kilowatt hour” value:
<http://rapidtables.com/convert/energy/index.htm>
- h. The value obtained in kilowatt hour is your kWh/ft^2 value to be entered in the requested fields of the BOMA BEST questionnaire. This value will be automatically pulled to the BOMA BEST Online Portal once integration is complete.

Energy Conversion

Energy conversion calculator - convert energy units.

kWh, Wh, MWh, BTU, kBTU, J, kJ, MJ, GJ conversion calculator

Enter the energy in one of the text boxes and press the *Convert* button:

Enter watt-hour:	<input type="text" value="23797.370897984!"/>	Wh	<input type="button" value="Convert"/>
Enter kilowatt-hour:	<input type="text" value="23.797370898"/>	kWh	<input type="button" value="Convert"/>
Enter megawatt-hour:	<input type="text" value="0.0237973709"/>	MWh	<input type="button" value="Convert"/>
Enter BTU:	<input type="text" value="81200"/>	BTU _{IT}	<input type="button" value="Convert"/>
Enter kiloBTU:	<input type="text" value="81.2"/>	kBTU _{IT}	<input type="button" value="Convert"/>

3. Water Use Intensity (WUI)

Return to the Summary page for your building.

- a. In the Metric Summary table, find the entry for “Water Use (all water sources)”. This is the total consumption for your building over 12 months.



Metrics Summary		Change Time Period	
Metric	Dec 2014 (Energy Baseline)	Dec 2015 (Energy Current)	Change
ENERGY STAR score (1-100)	100	67	-33(-33.0%)
Source EUI (kBtu/ft ²)	30.9	146.5	115.6(374.1%)
Site EUI (kBtu/ft ²)	36.7	174.2	137.5(374.7%)
Energy Cost (\$)	699,277.40	699,277.40	0.00(0.0%)
Total GHG Emissions (Metric Tons CO ₂ e)	966.8	966.8	0.0(0.0%)
Water Use (All Water Sources) (kgal)	Not Available	9,036,274.4	N/A
Total Waste (Disposed and Diverted) (Tons)	Not Available	Not Available	N/A

- b. This value is given in kgal. It must be converted into m³. Simply enter the value in the calculator on the following website to obtain the value in m³:
<http://www.kylesconverter.com/volume/kilogallons-to-cubic-meters>
- c. This value must now be divided by your building's gross floor area (GFA):
Total water consumption (m³) / Gross Floor Area (m²) = WUI
 - i. If you entered your GFA in m², divide your total consumption (in m³) by your GFA (in m²). This is your WUI in m³ / m².
 - ii. If you entered your GFA in ft², divide the value by 10.76 to obtain your GFA in m² (GFA in ft² / 10.76 = GFA in m²).
 - iii. Next divide your total consumption (in m³) by your GFA (in m²). This is your WUI in m³ / m².
- d. Identify your WUI in the requested fields of the BOMA BEST questionnaire.