

## BMO Eco Smart Mortgage™ checklist for Single Family homes (including townhouses)

To qualify for the BMO Eco Smart Mortgage, your home must meet the requirements outlined in the BMO Eco Smart Mortgage checklist as confirmed by a third party appraiser (or energy auditor) arranged by BMO. For single family homes, your home needs to have the required energy efficient features from six of the seven categories listed in the checklist below.

Category	Energy Efficient Feature	How do I know if I have this benefit?	Did you know?
<p><b>1. High Efficiency Heating System</b></p>	<p>You'd like to make environmentally friendly choices for your home but you may not always know what choices to make. BMO has used industry rating standards to determine some of the energy savings qualification features for the BMO Eco Smart Mortgage.</p> <p>A high efficiency heating system can be determined by having <b>one of</b> the following three cases:</p> <ul style="list-style-type: none"> <li>• A gas furnace that has at least a 95% Annual Fuel Utilization Efficiency (AFUE) or higher</li> <li>• An oil furnace or boiler that has at least an 85% AFUE or higher</li> <li>• Geothermal – Earth energy system (ground or water source) that is compliant with CAN/CSA-C448 and is certified by the Canadian GeoExchange Coalition (<a href="http://www.geo-exchange.ca">www.geo-exchange.ca</a>)</li> </ul>	<p>To confirm these features, the easiest way is to check the product manual to confirm the ratings of these products or systems however, if you don't have the manual, don't worry, here are some tips on how you may be able to identify them yourself.</p> <p>Take a look at the furnace itself. Often you will be able to find a label displaying the AFUE identification on the unit.</p> <p>Check out the heating unit pump itself. Often you may be able to find a Geoexchange certification label on the unit.</p>	<p>Products that display the ENERGY STAR® symbol have been tested according to prescribed procedures and have been found to meet or exceed higher energy efficiency levels without compromising performance.</p> <p>When properly designed and installed, ENERGY STAR qualified heating equipment can save you 15 percent or more on heating and cooling bills each year, depending on where you live and how much you pay for your energy source.<sup>1</sup></p> <p>To find out more information on energy savings, visit Natural Resources Canada to <a href="#">Compare Annual Heating Costs of Heating Systems and Energy Savings</a></p> <p>Learn more about Earth Energy Systems, what it is and it's benefits from <a href="#">Natural Resources Canada</a></p>

<p><b>2. High efficiency Air Cooling System or no Air Cooling System at all.</b></p>	<p>ENERGY STAR qualified central air-conditioning system or a system that has a Seasonal Energy Efficiency Ratio (SEER) of 14.5 or higher</p>	<p>Take a look at the air conditioning system. You should be able to identify it with a label displaying the ENERGY STAR symbol or SEER rating identification on the unit.</p> <p>Air conditioner and heat pump (cooling mode) energy efficiency is measured by SEERs (seasonal energy efficiency ratio). The higher the number, the more energy-efficiency the model.<sup>2</sup></p>	<p>On average heating and cooling costs a homeowner about \$1,000 a year - nearly half the home's total energy bill.</p> <p>You can reduce your cooling costs by 30% simply by replacing a 12-year-old non-qualified central air conditioning unit with an ENERGY STAR qualified model.<sup>3</sup></p> <p>Homeowners living in hot and humid climates can expect to save up to \$700 in energy costs over the life of the ENERGY STAR qualified equipment.<sup>4</sup></p>
	<p>Having no air-conditioning system</p>	<p>If you don't have air conditioning in your home, you have already made an energy saving decision! This means, you already have one of the seven features required to complete the checklist!</p>	
<p><b>3. Good Quality Attic Insulation</b></p>	<p>The total attic area must be insulated to a <u>minimum</u> insulation value of RS8.6 (R-49).</p>	<p>If you can access your insulation, R-49 for fiberglass insulation is between 13.2-16.3 inches thick, for blown mineral/cellulose fibre is between 12.9-17.5 inches thick or any level of polyurethane spray foam.</p>	<p>Good quality attic insulation will lower your energy bill and will also make your home a more comfortable environment to live in.</p> <p>It is also often one of the easiest home improvements which can easily translate into immediate savings on your home energy bills, especially in the winter months.</p>

**4. Windows**

**All\*** windows in the home must be ENERGY STAR qualified with no cracks or air gaps

\*exemptions of 5% of total window area may be allowed for small amounts of decorative glass

Often you can confirm this by looking for a label displaying the ENERGY STAR symbol on the edge of the windows themselves.

To test for “cracks and gaps” look for visible signs of wear and feel for obvious air flow around the edges of your windows.

Energy-efficient windows do more than save you money and help the environment.

Energy-efficient windows will:

- reduce your home energy costs by 7 to 12 percent
- reduce or eliminate cold drafts
- collect less condensation
- reduce noise from outside <sup>5</sup>

For more information on potential energy and cost savings, visit the ENERGY STAR® Initiative in Canada.

**5. Domestic Hot Water System**

Must have **one of** the following three:

- Solar domestic hot water system

Often identified by solar collectors on the roof of home.

According to the Environmental and Energy Study Institute (EESI), residential solar water heater systems cost between \$1,500 and \$3,500, compared to \$150 to \$450 for electric and gas heaters. With savings in electricity or natural gas, solar water heaters pay for themselves within four to eight years.<sup>6</sup>

If you're looking to get into solar water heating, the [Canadian Solar Industries Association](#) maintains a list of certified solar water heater installers.

<p><b>5. Domestic Hot Water System</b></p>	<ul style="list-style-type: none"> <li>Instantaneous/tankless gas hot water heater</li> </ul>	<ul style="list-style-type: none"> <li>Wall mounted – often there is condensing piping leading to outside of building.</li> </ul>	<p>Hot water use typically accounts for up to 20% of the total energy consumption of the average home. Switching to a tankless water heater could reduce that hot water demand by 30% or more, depending on your use.<sup>7</sup></p> <p><a href="#">Learn more on instantaneous/tankless gas hot water heaters</a> or view the information booklet on <a href="#">instantaneous water heaters</a> from the Natural Resources Canada.</p>
	<ul style="list-style-type: none"> <li>ENERGY STAR qualified gas storage or condensing hot water heater</li> </ul>	<p>Check for a label displaying the ENERGY STAR symbol on the hot water storage tank.</p>	<p>ENERGY STAR qualified water heaters use at least 5 percent less energy than conventional models.</p> <p>Selecting an ENERGY STAR qualified model that can reliably meet a household's needs will result in significant cost savings over the life of the equipment. An ENERGY STAR qualified water heater will also help the environment because the less energy we use, the fewer greenhouse gas emissions are produced.<sup>8</sup></p>
<p><b>6. Doors</b></p>	<p><b>All</b> door(s) separating heated from unheated spaces (e.g. exterior doors, doors leading to an attached garage) must be ENERGY STAR qualified, or metal, or fibreglass insulated doors. Doors must be properly installed with no cracks or air gaps.</p>	<p>Often you can confirm this by looking for a label displaying the ENERGY STAR symbol on the inside edge of the doors themselves. Wood doors do not qualify.</p> <p>To test for “gaps” look for visible signs of proper weather stripping around doors and feel to make sure there is no obvious air flow around the edges of your doors.</p>	<p>ENERGY STAR qualified doors are more efficient than traditional doors because they are more effective at keeping cold air out of the house in the winter and warm air out of the house in the summer. Household energy consumption can be reduced by about 7% if all doors and windows are ENERGY STAR qualified.<sup>9</sup></p> <p>If all of the original windows and doors in an average older home were replaced by ENERGY STAR qualified windows and doors, the household energy consumption would be reduced by about 7% saving three quarters of a tonne of greenhouse gas (GHG) emissions annually.<sup>10</sup></p>

## 7. Major Appliances

**At least three** major appliances, as defined below, must be ENERGY STAR qualified. If the home has less than three major appliances, then all appliances present must be ENERGY STAR qualified. If the home has more than one of any given major appliance, then it is the primary appliance that must be qualified (e.g., the main kitchen refrigerator not a small wine fridge).

ENERGY STAR qualified dishwasher

Often you can confirm this by looking for a label displaying the ENERGY STAR symbol on the appliance itself – sometimes it may even be on the back of the unit.

You can save water and energy costs!

If you have a dishwasher made before 1994, you're paying in average, an extra \$40 a year on your utility bills compared to owning a new ENERGY STAR qualified model. You could replace your old dishwashers with ENERGY STAR qualified models and save enough money to pay for dishwasher detergent all year!<sup>11</sup>

ENERGY STAR qualified freezer

An ENERGY STAR qualified freezer uses 20% less energy than a new, non-ENERGY STAR qualified model.<sup>12</sup>

ENERGY STAR qualified refrigerator

An ENERGY STAR qualified refrigerator generally use 20% less energy than a model not labelled with the ENERGY STAR logo.<sup>12</sup>

ENERGY STAR qualified washing machine

Through superior designs, ENERGY STAR qualified washing machines help to save money on utility bills by using less water and energy while cleaning clothes thoroughly. In fact, these washing machines use 50 percent less energy and 35 to 50 percent less water than traditional models.<sup>12</sup>

Your water savings over the life of your washing machine could fill three backyard swimming pools!

For more information on potential energy and cost savings, visit the [ENERGY STAR® Initiative in Canada](#).



## How we can help

If you'd like to discuss your home financing needs, speak with a [BMO Mortgage Representative](#) in-branch or meet with a [BMO mobile Mortgage Specialist](#) when and where it is convenient for you.

- 1 <http://oee.nrcan.gc.ca/residential/personal/energy-star-home-heating.cfm?attr=4>
- 2 <http://oee.nrcan.gc.ca/residential/personal/cooling-ventilation/central-ac/ee.cfm?attr=4>
- 3 [http://www.energystar.gov/index.cfm?fuseaction=find\\_a\\_product.showProductGroup&pgw\\_code=CA](http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=CA)
- 4 [http://www.energystar.gov/index.cfm?c=new\\_homes.nh\\_features](http://www.energystar.gov/index.cfm?c=new_homes.nh_features)
- 5 <http://oee.nrcan.gc.ca/residential/personal/windows-doors/buying.cfm?attr=4>
- 6 [http://environment.about.com/od/renewableenergy/a/solar\\_water\\_heater.htm](http://environment.about.com/od/renewableenergy/a/solar_water_heater.htm)
- 7 <http://www.climatechangecentral.com/take-action/individual/energy-efficiency/water/tankless-water-heaters>
- 8 [http://oee.nrcan.gc.ca/Publications/infosource/Pub/home/water\\_heater\\_factsheet.cfm?attr=4](http://oee.nrcan.gc.ca/Publications/infosource/Pub/home/water_heater_factsheet.cfm?attr=4)
- 9 <http://www.homedepot.ca/webapp/wcs/stores/servlet/EcoOptionsProduct?storeId=10051&catalogId=10051&langId=-15&Nty=1&Ntx=mode%2Bmatchall&Ntk=level1&D=1&Dx=mode%2Bmatchall&catNav=2&N=171986+10000063>
- 10 <http://oee.nrcan.gc.ca/residential/business/manufacturers/window.cfm>
- 11 [http://www.energystar.gov/index.cfm?fuseaction=find\\_a\\_product.showProductGroup&pgw\\_code=DW](http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=DW)
- 12 <http://oee.nrcan.gc.ca/residential/business/energystar/benefits.cfm?attr=4>

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