

Natural gas – An undeniable asset for LEED certification

For some years, the new construction and renovation markets have been facing new social and environmental realities. This awareness led to the creation of LEED (Leadership in Energy and Environmental Design) certification.

There are four certification levels. Depending on the number of points awarded out of a total of 70, a building may obtain certified, silver, gold or platinum LEED certification, platinum being the highest level. The points are divided among various categories related to the construction and operation of the building.

Some believe that, in order to obtain LEED certification, electricity is the simplest choice. Today we will prove that this is not true.

Choosing natural gas for a LEED building – An advantageous decision

First, the category that concerns the use of energy is “Energy and atmosphere” and it is worth a maximum of 17 points (out of a total of 70) divided as follows:

Implementation of systems	Obligatory
Minimum energy performance	According to ASHRAE 90.1
Reduction of CFCs, elimination of halons	Obligatory
Optimization of energy performance	1 à 10 points
Use of on-site renewable energy	1 à 3 points
Implementation of improvements	1 point
Protection of the ozone layer	1 point
Control, verification and measurement	1 point
Green electricity	1 point

A maximum of 10 points in the sub-category “Optimization of the energy performance of a building” is awarded based on the performance of the new building compared with that of a reference building defined by ASRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers) or by the MNECB (Model National Energy Code for Buildings). What gives natural gas an edge is the calculation hypotheses used by the accredited computer simulation. The performance simulator uses an efficiency rating of 100% if the reference building is electric, while the natural gas reference building efficiency rating is 80%.

Thus, the simple fact of installing a natural gas condensation boiler with an efficiency rating of 90% will automatically lead to a 12% gain in efficiency on the energy needed for heating, that is, between 6-8% of the building’s total energy consumption. To obtain LEED certifica-

tion, the building’s total energy consumption must be at least 25% below that of the MNECB reference building. **The natural gas condensation boiler alone achieves almost one-third of the savings required by LEED.**

And here’s another interesting fact: that’s not including the financial assistance Gaz Métro offers to purchase this high energy-efficiency appliance.

Take advantage of financial assistance from Gaz Métro for your LEED project

Take advantage of the financial assistance from Gaz Métro’s energy efficiency programs to purchase efficient appliances, conduct a feasibility study or implement efficiency measures. As a Gaz Métro customer, you can also benefit from financial assistance from the Energy Efficiency Fund to optimize the rest of your building and save even more!

Find out about the sub-categories “Renewable energy” and “Green energy”

Another important fact to emphasize is that, in order to obtain the points awarded for “use of on-site renewable energy” and “green energy,” hydroelectricity and natural gas are on the same footing. Generation from large-capacity hydroelectric installations like those we have in Québec has significant impacts on the environment, which is why the points cannot be obtained. In fact, points are awarded in these two sub-categories when energy is produced on the site itself.

Call on a DATECH PA LEED advisor right from the start

It is important that you also consider natural gas, and to do so right from the start when designing your LEED project. When all those involved meet to discuss the various possibilities, always invite a natural gas specialist, who can come up with solutions. You can count on our DATECH PA LEED advisors to give you advice and support with your LEED project.

Consult our Internet site: www.gazmetro.com or call your Sales Representative.