

A carbon neutral campus

THE CONTEXT

After years of hard work, Université Laval achieved carbon neutrality by reducing and offsetting its greenhouse gas (GHG) emissions. It becomes the first university in Quebec and the first in Canada to present, without being required by law, a zero balance of GHG emissions.

26% reduction of scope 1 and 2 GHG emissions since 2006.



The Montmorency Forest, a 412 km² carbon sink.

THE PROCESS

MEASURE		
2006 GHG assessment	36,502 tons	100%

REDUCE		
Reduction of direct GHG emissions (scope 1 and 2) between 2006 and 2014-2015	- 9,661 tons	26%

OFFSET		
Sustainable management of Montmorency Forest Carbon sink	- 13,945 tons	38%
Partnership with Séminaire de Québec Carbon sink (conservation areas)	- 7,550 tons	21%
Added value partnerships Acquisition of carbon credits	- 5,346 tons	15%



UNIVERSITÉ LAVAL: CARBON NEUTRAL CAMPUS



Natural ventilation at the TELUS-Université Laval Stadium, favored by its distinctive profile, which reduces air conditioning expense.

Carbon neutrality: 0 and scope 2) and the sum of emissions offset and emissions reduced. There will then be no more impacts on the climate, since emissions will be considered null.

Carbon sink: Natural reservoir which absorbs carbon from the atmosphere and reduces the amount of atmospheric CO₂.

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- **Measure:** The emissions measured are divided into three categories (scopes) according to the Université Laval Greenhouse Gas Protocol. An assessment of scope 1 and scope 2 GHG emissions, mainly related to heating and electricity, is carried out annually and a full assessment is carried out every three years.
- **Reduce:** Over the years, sound operations management and the university's willingness to improve have served to reduce greenhouse gases emissions. The main initiatives are as follows:
 - optimization of heating systems and equipment;
 - installation of Le Colosse supercomputer;
 - construction of a hazardous waste management centre powered by a geothermal system;
- **Offset:** In order to offset its unavoidable scope 1 and scope 2 emissions, the university can, among other things, rely on its carbon sinks: The Montmorency Forest and a collaboration with Séminaire de Québec. To achieve carbon neutrality, the university has also purchased carbon credits with savings generated by energy efficiency measures. The university intends to actively continue its GHG emissions reduction efforts and gradually phase out its purchasing of carbon credits.



A voluntary offset program offered to the university community members to offset their scope 3 GHG emissions.

DID YOU KNOW THAT?

In the coming years, the University wants to reduce its scope 1 and 2 GHG emissions by 1,800 tons of CO2 equivalent emissions by 2018, compared to 2014-2015 thresholds. To do this, it will implement a series of energy efficiency measures at the Alphonse-Desjardins, Maurice-Pollack, J.-A.-DeSève and Laurentienne buildings.

THE TEAM

- The Service des immeubles (building department) accounts several energy efficiency actions with the aim to reduce costs and GHG emissions.
- A scientific committee, made of 9 people, was also created to validate scientific hypotheses related to University's carbon sinks.



INFORMATION

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