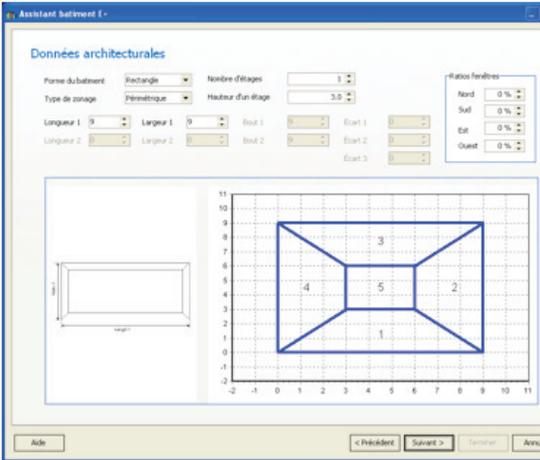
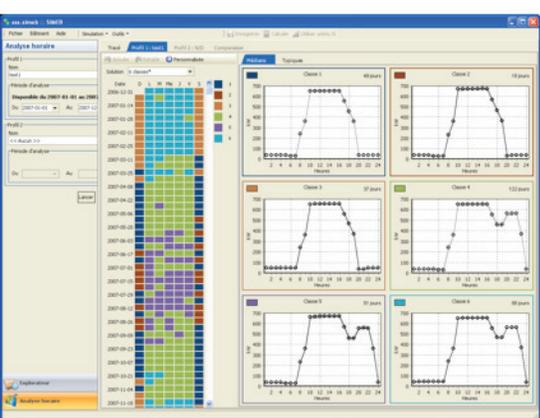


SIMEB

Building Energy Simulation Software



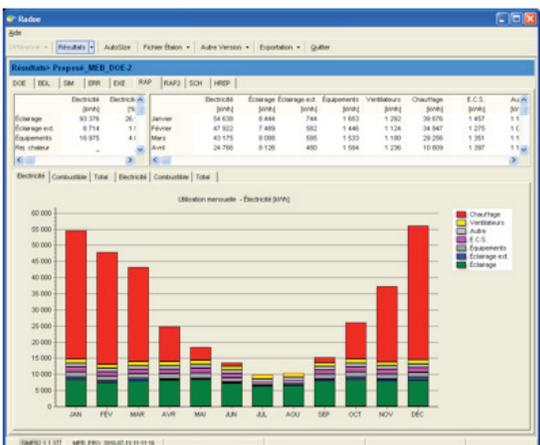
To achieve the targets in its Energy Efficiency Plan, Hydro-Québec has developed programs for its various customer categories. For example, the Buildings Program offers flexible financial support adapted to the needs of business customers in the commercial and institutional markets who wish to carry out energy efficiency projects. These customers must be able to identify their needs with some precision.



The researchers at the Laboratoire des technologies de l'énergie (LTE) of the Institut de recherche d'Hydro-Québec (IREQ) have developed a software program called SIMEB, which simulates the energy consumption of commercial and institutional buildings, thus enabling the user to estimate and improve the energy savings resulting from planned efficiency measures. With this tool, energy consumption optimization takes place through a systemic approach to the building, its components and its occupants.

Accurate consumption portrait

SIMEB gives the user an energy consumption portrait based on the building characteristics: architectural data, thermal envelope, type of occupancy and mechanical systems in place (lighting, ventilation, heating, etc.). The user may then modify these parameters to evaluate the impact of planned energy efficiency measures.



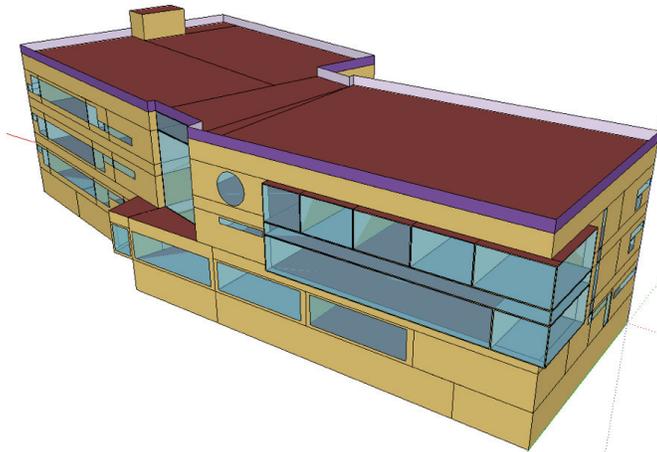
Just a mouse click away

SIMEB is for designers, engineers and technicians who want to guide their clients toward integrated concepts for new buildings or energy renovations in existing buildings. The software can be downloaded free of charge at www.simeb.ca. This Web site also provides free downloads of hourly meteorological data from 59 stations in Québec, from 1995 to today, in formats that can be used by simulation programs.

Virtual building, real savings

The purpose of SIMEB is to facilitate building energy simulation in order to improve integrated building design and energy renovations. It provides a simplified interface for the widely recognized DOE2 and EnergyPlus calculation engines. The following features are highly appreciated by users and are among the factors that make this a superior product:

- > A wizard enables the user to quickly generate models of typical commercial and institutional buildings in Québec, thus facilitating the construction of a virtual building.
- > The simulation can be calibrated for better alignment of simulated results with actual billing data.
- > The interface takes into account several building scenarios, facilitating the analysis of anticipated efficiency measures.
- > Complex building geometries created using Google SketchUp can be input.
- > Hourly measured or simulated consumption profiles can be analyzed in order to diagnose an operating problem or extract typical daily profiles



Pour plus d'information

Simon Sansregret, Project Coordinator
Laboratoire des technologies de l'énergie
600, avenue de la Montagne
Shawinigan (Québec) G9N 7N5
Canada
Telephone: 819 539-1400 p.1555
E-mail: sansregret.simon@lte.ireq.ca

SIMEB: A leader in its class

SIMEB is used by teaching establishments in energy efficiency training. Since January 2011, use of SIMEB has been mandatory for customers submitting an energy efficiency project designed to optimize the performance of a new building under Hydro-Québec's Buildings Program – Assistance for Investments.

March 2012

2012G069_SIMEB_A