

**PROJECT TYPE: Energy Audits (EA) ASHRAE Level 2**

**CLIENT NAME: Georgian College**

**PROJECT DATES: 2017**



## CLIENT IMPACT AND SUCCESS

The Energy Audit conducted by Roth IAMS had a significant impact on Georgian College's sustainability efforts and operational efficiency. By identifying Energy Efficiency Measures tailored to the campus's specific needs, the college could potentially save a substantial amount on utility costs while reducing its carbon footprint.

The approval of the audit by SaveOnEnergy further validated the effectiveness of the recommendations, paving the way for potential reimbursement of half of the audit costs.

## PROJECT OVERVIEW

Roth IAMS, through our partnership with Ontario Educational Collaborative Marketplace (OECM), was contracted to conduct Energy Audits of the buildings at Georgian College's Owen Sound Campus. This work was facilitated through FCAPX, a Division of Roth IAMS, which was the brand under which EA work was contracted prior to 2019.

At the outset, we requested three years' utility consumption bills, which were consolidated to develop an energy model for the campus. A comprehensive site visit was conducted, including discussions with the building operator regarding control systems, occupancy schedules, temperature setpoints, and occupancy sensors. A thorough walk-through of the buildings was performed, capturing data on equipment and systems, maintenance records, and lighting fixtures. We also assessed the building envelope for air leakages and R-value.

The information gathered enabled us to create an energy balance and calculate the Energy Utilization Index (EUI), which was then benchmarked against model buildings of similar design provided by the Resource Canada, Office of Energy Efficiency (OEE).





## PROJECT SCOPE

The objective was to identify Energy Efficiency Measures (EEMs) that, if implemented, could lead to significant energy savings and reduce utility costs for Georgian College.

## KEY DELIVERABLES & CONSTRAINTS:

Key deliverables included a comprehensive energy audit report detailing potential energy savings of 337 GJ of natural gas and 204,319 KWh of electricity, equating to utility cost savings of approximately \$25,177 per annum. Additionally, the audit revealed potential greenhouse gas savings of 33.28 Tonnes CO<sub>2</sub> e, equivalent to removing 7 passenger vehicles from the streets. The project was subject to budget constraints, as it needed to adhere to the requirements set forth by SaveOnEnergy for potential reimbursement of 50% of the audit costs.

## CONCLUSION

The Energy Audit project undertaken by Roth IAMS for Georgian College's Owen Sound Campus exemplifies our commitment to helping educational institutions optimize their energy usage and contribute to environmental sustainability. By leveraging our expertise in energy management and utilizing comprehensive auditing techniques, we were able to provide actionable insights that promise tangible benefits for our client. This successful collaboration underscores the value of strategic energy planning and highlights the positive outcomes achievable through proactive energy management initiatives.

