



ENERGY SERVICES
ASSOCIATION
OF CANADA

PROMOTING
PERFORMANCE
BASED SOLUTIONS

case study

Lakehead University, Thunder Bay

Partnership between Lakehead University and Johnson Controls reinvigorates the campus environment.

*Performance-based solutions become the **premier choice** for energy and infrastructure renewal initiatives, resulting in fiscally and environmentally responsible outcomes.*



Project Description

Lakehead University lies near the western end of Lake Superior in Thunder Bay, Ontario. The University offers a comprehensive range of graduate and undergraduate programs to over 7,600 students. By enlisting the expertise of Johnson Controls, Lakehead University set out to replace aging building systems and improve indoor comfort for students, faculty, and visitors while funding such upgrades through the energy savings generated.

Opportunity

Johnson Controls collaboratively examined the University's needs and developed a long-term solution. Improvements include replacing the campus heating system and central plant chillers, upgrading lighting systems, and performing asbestos abatement programs. Standalone hot water plants were also installed in remote buildings.

Results

Johnson Controls financed \$23.3 million worth of improvements through their energy performance contract. Guaranteed annual energy savings start at \$1.3 million and accrue to \$30.9 million over the twenty-year contract term. Actual energy savings exceeded the guarantee by 45% after the first year. N₂O and SO₂ emissions were also reduced by 4,600 tonnes annually.

