



ENERGY SERVICES
ASSOCIATION
OF CANADA

PROMOTING
PERFORMANCE
BASED SOLUTIONS

case study

National Research Council Canada Building M-12

Substantial energy savings for National Research Council Canada Building M-12 achieved with Ameresco.

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



Project Description

In order to gain substantial energy savings, the National Research Council Canada (NRC) selected Ameresco to refurbish the lab ventilation systems and improve the efficiency of the fume hoods in Building M-12, a five-storey, 11 600-square-metre structure on its main campus in Ottawa. This project received assistance from the Federal Buildings Initiative of Natural Resources Canada's Office of Energy Efficiency.

Opportunity

Ameresco met the challenges of replacing or upgrading 92 fume hoods within the operational requirements of a lab facility. This variable airflow approach not only conserves energy but also ensures that safety standards are met. Ventilation systems were upgraded to optimize fan performance and efficiency and heat-recovery systems were added to pre-heat (or pre-cool) fresh air intake.

Results

As a result of the NRC's two-year partnership with Ameresco on this \$3.7 million project, annual energy savings of \$480,000 exceeded original projections by 33 percent. The annual savings in energy consumption were significant at 34 400 GJ (50% reduction) while the annual greenhouse gas emissions reduction was 2 950 tonnes.

The National Research Council Canada is the first recipient of the Real Property Institute of Canada's Excellence Award for Energy Efficiency in Federal Buildings.

A more detailed analysis of this project is available at:

<http://www.ameresco.com/page/case-studies-library>

www.energyservicesassociation.ca

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