

Building the First Pilot-Scale Bioenergy Facility in Inuvik, NWT

Prof. Hussain's team, in collaboration with local partners in Inuvik (NWT), is developing and testing the first pilot-scale bioenergy facility in Inuvik and only the second planned facility of its kind in the Canadian sub-Arctic.

Supported by the federal government, the Town of Inuvik, and local commercial partners including grocery retailers, the facility will demonstrate the conversion of municipal solid waste—particularly food waste—into renewable methane-rich biogas.



A Cleaner, More Sustainable North

The initiative addresses critical challenges facing northern communities, including waste management, energy sustainability, environmental protection, and long-term community resilience. By transforming organic waste into renewable energy, the project aims to reduce landfill dependency while supporting cleaner and more sustainable infrastructure for Arctic regions.



From Research to Real-World Impact

The facility will advance technologies developed at Carleton University from laboratory research to pilot-scale implementation under real northern operating conditions.



Building Capacity. Strengthening Communities.

Beyond its research significance, the project will play an important role in regional capacity building by supporting technical training, operational expertise, and the development of local infrastructure needed for expanding municipal and governmental services in northern Canada.



This partnership reflects a shared commitment to innovation, environmental stewardship, and the well-being of Arctic communities.

A cleaner future. Built in Inuvik.



Funded by the
Government
of Canada



Local Grocery
Partners



Carleton
University