



Biomass North Development Centre

Northern Ontario Bioeconomy Strategy

Overview

The **Biomass North Development Centre** has a mandate to support the development of a robust bioeconomy in northern Ontario. As a sector association focused on the growth and sustainability of an Ontario bioeconomy, Biomass North builds strategic alliances between all members of the value chain, performs cutting edge market and technical research, transfers knowledge and best practices, and drives innovation in new products and business models.

Developed in partnership by the Union of Ontario Indians (political advocate for 39 First Nations in Ontario) and the former Biomass Innovation Centre, the **Northern Ontario Bioeconomy Strategy** is intended to leverage our northern sustainable forestry resources to trigger economic development and job growth, push innovation and entrepreneurship, and develop new domestic markets and international partnerships. The Strategy was created with extensive input from northern Ontario municipalities, First Nations, provincial government, SME's, industry, academia, and various organizations.

Ontario has made considerable investment to develop key components of a thriving northern bioeconomy. However, the lack of an over-arching strategy has resulted in policy and regulatory barriers fragmented across several ministries. This, coupled with a lack of skilled workers, prevents the development of key projects in Ontario communities and First Nations jurisdictions.

In order to reduce these barriers, and to realise the potential economic and environmental benefits in the new bioeconomy, the Union of Ontario Indians and the former Biomass Innovation Centre partnered to develop a Northern Ontario Bioeconomy Strategy.

The Strategy

The Biomass North Development Centre is leading the implementation of the Northern Ontario Bioeconomy Strategy.

The Northern Ontario Bioeconomy Strategy aims to **reduce policy and regulatory barriers** to sustainable bioenergy projects, **define a skills and training roadmap** to transition our Ontario workforce into this growing sector, and **develop demonstration projects** in four strategic pillars – sustainable supply; bioenergy & biofuels; biocomposites & biochemicals; and traditional medicines & foods.





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Our objective is to form working groups composed of domestic and international partners to implement a series of **demonstration projects** within the four strategic pillars. Summaries of the demonstration project types we will implement through the Strategy are as follows.

Pillar 1: Sustainable Supply

- Explore community forest cooperative models
- Implement regional aggregator models to secure and manage fibre supply
- Modernization of forest harvesting equipment

Pillar 2: Bioenergy and Biofuels

- Develop and support export wood pellet mills
- Implement the “100km heat diet” supply model in northern communities
- District heating applications in northern communities
- Combined heat and power applications
- Commercial/municipal conversions to biomass boilers for heat

Pillar 3: Biocomposites & Biochemicals

- Phase 1 (short term): production of engineered wood products (CLT, glulam, etc); light manufacturing bioproduct park
- Phase 2 (long term): industrial biochemical and biocomposite production

Pillar 4: Traditional Medicines and Foods

- Bring to market First Nation’s traditional foods and medicines, as well as knowledge
- Biomass-heated greenhouses in remote northern communities

As well as demonstrating biomass applications and concepts, the Strategy addresses two **platform elements** that are critical to the growth of an Ontario bioeconomy. Objectives of these pieces include:

Skills & Training Platform

- Develop a skills and training roadmap which leverages current/existing programs and curriculum in Ontario, as well as addresses current gaps
- Strengthen domestic and international partnerships with academia and industry to support research, knowledge transfer and education/training

Policy and Regulatory Platform

- Develop an integrated task force composed of government and industry leaders to modernize the current policy and regulatory framework through a top-down approach



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Why NO-BS?

A successfully implemented Northern Ontario Bioeconomy Strategy is anticipated to have measurable benefits throughout Ontario, including the growth of economic development opportunities, reviving the Ontario forestry sector, enhancing First Nations partnerships, reducing energy poverty in remote communities, building the capacity for innovation, and enabling environmental sustainability of our resources.

To effectively achieve these goals, the Strategy aims to:

- Reduce policy and regulatory barriers to developing bioenergy projects and new bioproducts, and modernize regulatory and policy barriers to align with global best practices
- Support the development and implementation of demonstration projects throughout northern Ontario
- Develop domestic markets and the necessary infrastructure for bioenergy and bioproduct development
- Strengthen partnerships with international partners for knowledge and technology transfer, and to explore trade opportunities
- Develop a skills and training plan to identify and address gaps in the emerging bioeconomy
- Prioritize the allocation of forest resources, such as harvest waste and residues, to support the development of community bioenergy and biofuel projects in Ontario's First Nations communities and northern municipalities

Next Steps

From February to April 2015, staff from the former Biomass Innovation Centre and the Union of Ontario Indians conducted a series of community engagement sessions throughout northern Ontario. The purpose was to share the Strategy framework and incorporate feedback from our participants, as well as to determine potential partners and locations for proposed demonstration projects. The extensive feedback throughout the consultation process was valuable towards the creation of the Strategy.

The next phase will be the prioritization and early development of demonstration projects within the Strategy. The objective is to scope and prioritize a minimum of eleven project types, develop project-specific working groups to implement these projects, and to work with these groups towards early planning and implementation of these proposed projects.

Contact Biomass North to participate in Northern Ontario Bioeconomy Strategy.

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Become a member of the Biomass North sector association!