



# Biomasse et carboneutralité

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# Biomass and Carbon Neutrality





# National and regional challenges

Will Holowaychuk, Alberta Canola

Tina Rasmussen, MLTC Industrial Investments

Mahima Sharma, Forest Products Association of Canada

Evelyne Thiffault, Université Laval

*Roberta Dagher, IET, moderator*

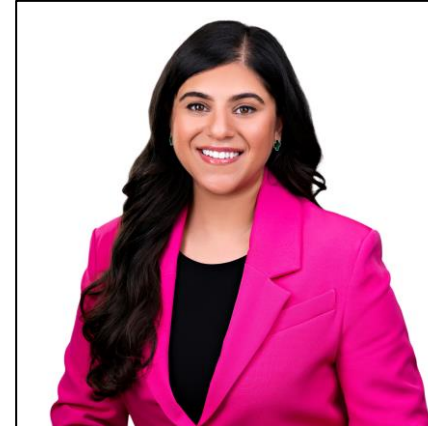
# Panelists



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**Alberta Canola**



**Tina Rasmussen**  
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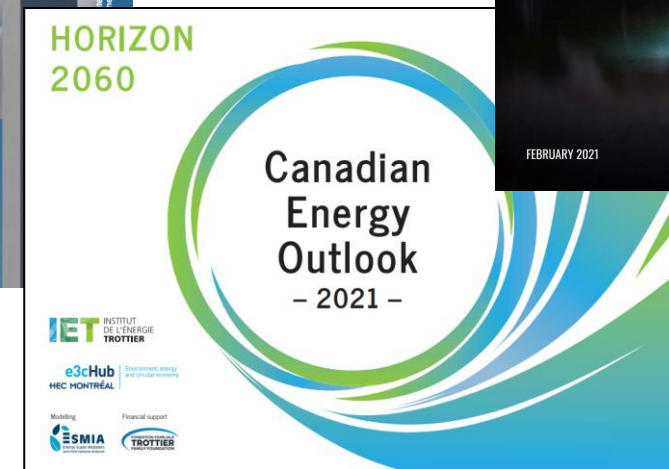


# Main objective of the project

Co-develop, through a series of discussions and workshops with stakeholders and specialists, an evaluation and comparison framework for biomass uses in Canada in the context of transition to carbon neutrality by 2050.

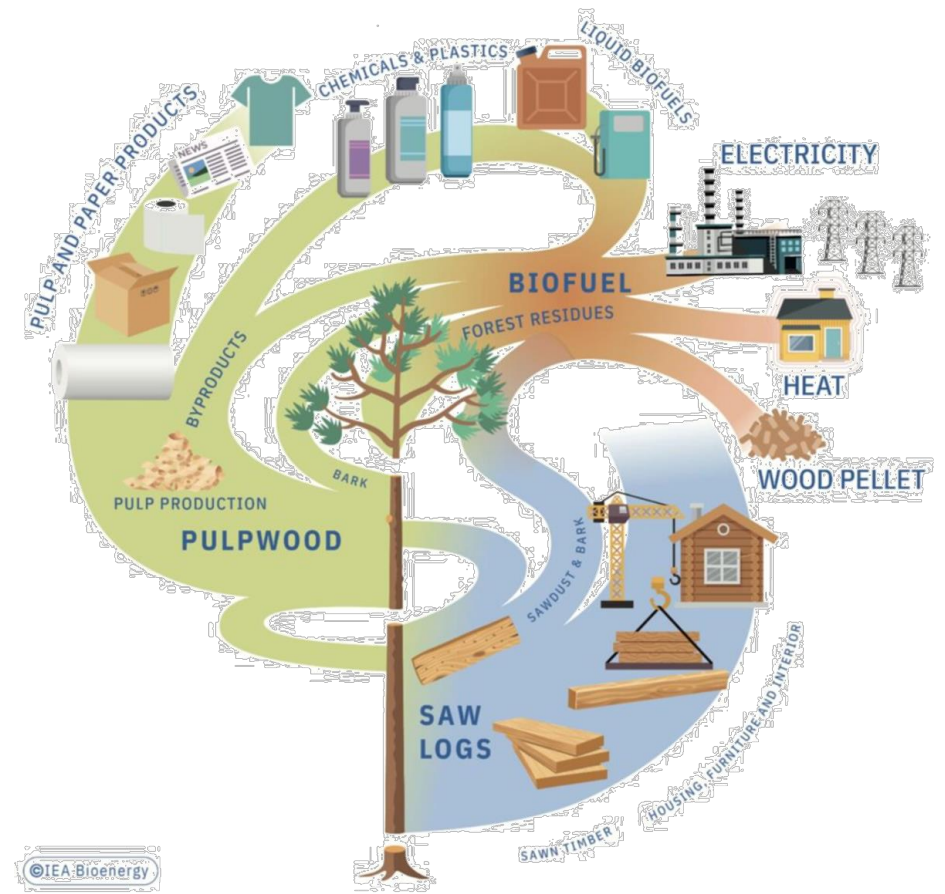
# Evaluation and comparison framework?

- Significant role of bioenergy in Net Zero scenarios
- Potential for negative emissions



# Evaluation and comparison framework?

- Different potential uses for the same types of resources  
(*energy and non-energy uses*)
- Limited supply of biomass



Source: IEA Bioenergy, 2023



# First phase of the project

- White paper '*Current state in Canada*'
- 5 regional workshops
- +90 persons contributed
- Comments and suggestions received from a broad range of stakeholders and experts

# Report following the workshops discussions

<https://iet.polymtl.ca/en/biomass-and-carbon-neutrality/workshops/>

The image displays a collage of workshop discussion outputs, organized into three main sections: Discussion 1 - Economic viability/profitability factors, Discussion 2 - Supply issues, and Discussion 3 - Economic viability/profitability factors. Each section contains sub-topics like Value chain, Biomass availability, Boundaries, Competition, and Additional comments.

**Discussion 1 - Economic viability/profitability factors**

- Value chain:** Discusses the flow from raw materials to final products, highlighting the need for a clear value chain and the importance of understanding the needs of different stakeholders.
- Biomass availability:** Focuses on the availability of biomass resources, including the need for a clear definition of biomass and the importance of understanding the needs of different stakeholders.
- Boundaries:** Discusses the boundaries of the biomass sector, including the need for a clear definition of biomass and the importance of understanding the needs of different stakeholders.
- Competition:** Discusses the competition in the biomass sector, including the need for a clear definition of biomass and the importance of understanding the needs of different stakeholders.
- Additional comments:** Provides additional insights and recommendations related to the biomass sector.

**Discussion 2 - Supply issues**

- Biomass availability:** Discusses the availability of biomass resources, including the need for a clear definition of biomass and the importance of understanding the needs of different stakeholders.
- Boundaries:** Discusses the boundaries of the biomass sector, including the need for a clear definition of biomass and the importance of understanding the needs of different stakeholders.
- Competition:** Discusses the competition in the biomass sector, including the need for a clear definition of biomass and the importance of understanding the needs of different stakeholders.
- Additional comments:** Provides additional insights and recommendations related to the biomass sector.

**Discussion 3 - Economic viability/profitability factors**

- Value chain:** Discusses the flow from raw materials to final products, highlighting the need for a clear value chain and the importance of understanding the needs of different stakeholders.
- Biomass availability:** Focuses on the availability of biomass resources, including the need for a clear definition of biomass and the importance of understanding the needs of different stakeholders.
- Boundaries:** Discusses the boundaries of the biomass sector, including the need for a clear definition of biomass and the importance of understanding the needs of different stakeholders.
- Competition:** Discusses the competition in the biomass sector, including the need for a clear definition of biomass and the importance of understanding the needs of different stakeholders.
- Additional comments:** Provides additional insights and recommendations related to the biomass sector.

**Key findings and recommendations:**

- Gov gave big players (dominant player who can easily effect or eliminate threats) allocations.
- Overall nothing significant, for example, wood fibre is allocated by one company: Irving.
- Importation de RNG en anglais parce que mon JN et halfax sont en JN, les autres qui n'ont l'opportunité préfèrent.
- agri. residues et food residus est utilise comme intrant a cause des couts de production des autres formes d'energie eleves.





# Comments that stood out

- The need to consolidate priorities across all industries now and on the longer term
- The necessity of harmonizing the prioritisation criteria for biomass uses
- Taking into account other aspects (such as biodiversity, energy security, food security, water security) in addition to net-zero objective
- Community must be part of the process

# Panelist



Will Holowaychuk  
Alberta Canola

# CANOLA & CROP PRODUCTION

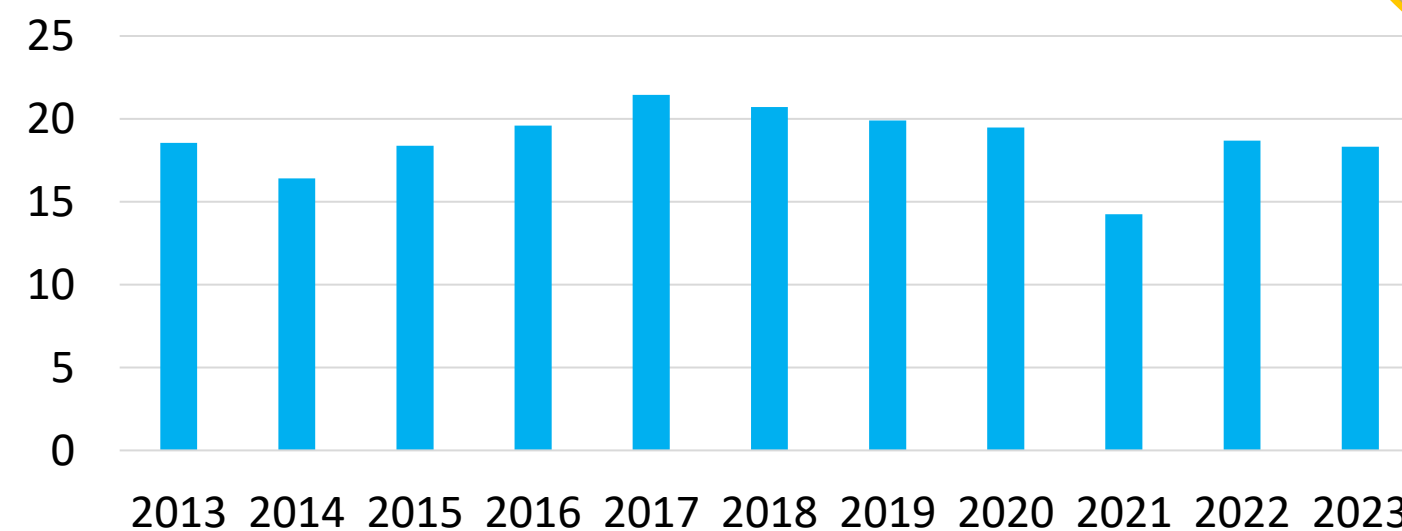
Canola represents 28% of Canadian crop production, and approximately 30% of crop production on the prairies.\*

Factors that impact canola production:

- Pest management
- Weather conditions
- Land use competition



Annual Canadian Canola Production (in MMT) \*



\*Stats Canada. Table 32-10-0359-01

# CANOLA & BIOFUELS

Food versus fuel considerations

Regulatory changes & economic impact:

Canada' Clean Fuel Regulations (CFR)

US Renewable Fuel Standard (RFS)

Impact on trade of canola seed, oil, and meal

Increasing crush capacity:\*

Current: 11.1MMT

Proposed: 6.7 MMT



\*Canola Council of Canada

# CROP RESIDUES & SOIL HEALTH

Regional differences

Impact on livestock industry

Nutrient cycle impact from residue removal:

N: 0.70lb/bushel      P: 0.23lb/bushel

K: 2.48lb/bushel      S: 0.70lb/bushel

Long-term impact on crop yields

Beneficial management practices (BMPs)

Conflicting policy across departments & jurisdictions

Standards for residue removal that considers:

1. Soil cover to prevent erosion
2. Soil organic matter preservation
3. Nutrient removal



# Panelist



Tina Rasmussen  
MLTC Industrial  
Investments



Business Development arm of the  
Meadow Lake Tribal Council

MLTC Industrial Investments LP



9 Nations  
Treaty Territories 6, 8 and 10  
17,000 members



# Using Business to Create Opportunity and Influence Outcomes

Sustainable Forest Harvesting



NorSask Forest Products LP



MLTC Bioenergy Centre



# Panelist



**Mahima Sharma**  
**Forest Products**  
**Association of**  
**Canada**

# Our Members



# Panelist



**Evelyne Thiffault**  
**Université Laval**

Sawnwood



Biomass for  
bioenergy

Pulp





A photograph of three people standing in a forest. A man in a grey hoodie stands on the left. A woman in a black hoodie and blue pants stands in the middle, holding the left end of a yellow banner. A woman with red hair, wearing a light blue top and a patterned skirt, stands on the right, holding the right end of the banner. The banner has the text 'FORESTS ≠ FUEL' in large black letters, with the Greenpeace logo below it. The forest floor is covered in green plants and fallen branches, and the background shows tall trees with sunlight filtering through.

**FORESTS ≠ FUEL**

GREENPEACE

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