



# Maine Forest Products Council

*The voice of Maine's forest economy*

## Testimony in Support of LD 1475

### **“An Act to Promote Biomanufacturing and Biotechnology Development by Establishing a Tax Credit”**

April 18, 2023

Patrick Strauch, Executive Director

Senator Grohoski, Representative Perry and members of the Committee on Taxation, my name is Patrick Strauch, I am a resident of Exeter and am here today to present testimony on behalf of the Maine forest Products Council in support of LD 1475, “An Act to Promote Biomanufacturing and Biotechnology Development by Establishing a Tax Credit.”

The Maine Forest Products Council is an organization representing more than 300 members from all facets of the forest products industry. Members include paper mills, sawmills, loggers, truckers, foresters, panel manufacturers, biomass and pellet facilities and secondary manufacturers. We also have more than 8 million acres of dues paying landowner members.

The Council supports a refundable Maine income tax credit for investment in biotechnology incubators and biomanufacturing facilities because we think that it's a good idea. As an industry, we are moving into the forest bioeconomy where plant-derived products (tree cellulose) can replace petroleum-based products like plastics, fuels and building materials.

This concept is emphasized in Maine's Climate Action Plan's description of the Maine Forest Bioeconomy (attached) and has been a part of an active marketing effort by the Forest Opportunity Roadmap consortium (FOR/Maine) seeking to develop a marketing plan that diversifies Maine's wood markets and creates more opportunities for Maine's rural communities. (FMI: [formaine.org](http://formaine.org))

In a global scan of opportunities for additional wood manufacturing in Maine many opportunities were identified (see diagram on next page) and continuous research and development occurs at the University of Maine.

Within LD 1475, we seek clarification on several points within the definition of “Biotechnology products.”

#### Companies represented on the MFPC Board

A & A Brochu Logging  
American Forest Mgmt.  
Baskahegan Co.  
BBC Land, LLC  
Columbia Forest Prod.  
Cross Insurance  
Family Forestry  
Farm Credit East  
Fontaine Inc.  
H.C. Haynes  
Huber Resources  
INRS  
J.D. Irving  
Katahdin Forest Mgmt.  
Key Bank  
Kennebec Lumber  
LandVest Inc.  
Louisiana Pacific  
Maibec Logging  
ND Paper  
Nicols Brothers  
Pingree Associates  
Prentiss & Carlisle  
ReEnergy  
Richard Wing & Son  
Robbins Lumber  
Sappi North America  
Southern Maine Forestry  
Stead Timberlands  
St. Croix Tissue  
St. Croix Chipping  
TD Bank  
Timber Resource Group  
Timberstate G.  
Wadsworth Woodlands  
Wagner Forest Mgt.  
Weyerhaeuser  
Woodland Pulp


Our questions are as follows:

- It should be specified that wood cellulose and its extracts meet the definition of “commercially important biomaterials and biomolecules for use in advanced research, medicines, food, and beverage processing or industrial applications.”
- Under “Manufactured using biological processes”, is the definition limited to biological processes, or can it be interpreted to include chemical and mechanical processing of plant material? For example, cellulosic sugars are a platform chemical for bioplastics such as polylactic acid and lactic acids, which can be used as a preservative in food and beverages, and in succinic acid, which is used in resins and coatings. Would these compounds qualify for the credit?


We think Maine has numerous opportunities in the growing bioeconomy of the world, and this type of tax credit can reinforce or position us as leaders in this emerging field.

Thank you and I would be glad to answer any questions you may have.


**CURRENT & EMERGING WOOD PRODUCTS**




**SAWN TIMBER**  
Sawn Timber will continue to be an important component of Maine's forest economy. Demand in the US is largely driven by the number of housing starts, which has exceeded its 2019 level. Timber is the foundation of forest land ownership and the final product of long-term forest management.




**PULP AND PAPER MANUFACTURING**  
Pulp and Paper Manufacturing continues to be the main industry in Maine's forest economy. Maine's sawmills are shifting production away from softwoods and into higher value and packaging products like paper.



**ORIENTATED STRAND BOARD (OSB)**  
Orientated Strand Board (OSB) is an alternative to plywood that is used extensively as a structural panel in construction. This technology is produced by two major facilities in Maine.




**LAMINATED VENEER LUMBER (LVL)**  
Laminated Veneer Lumber (LVL) is an engineered wood product that is used in a variety of applications in the construction industry. No manufacturing capacity exists in Maine.




**MEDIUM DENSITY FIBERBOARD (MDF)**  
Medium Density Fiberboard (MDF) is a wood-based panel product manufactured from wood and sawdust. In the past 20 years, laminate flooring and interior furniture has become a major end use for MDF. No manufacturing capacity exists in Maine.


**Current Wood Products**




**CROSS-LAMINATED TIMBER**  
Cross-laminated Timber is an engineered wood product that is especially well suited for buildings between 6-18 stories tall. It is very rarely in the growth curve in North America and rapid growth is expected. Two CLT facilities have announced they will be opening in Maine.




**CELLULOSIC SUGARS**  
Cellulosic sugars are a platform chemical for bioplastics such as Polylactic acid, Lactic acids which can be used as a preservative in food and beverages and Succinic acid which is used in resins and coatings. Cellulosic sugars are a platform chemical for bioplastics such as Polylactic acid, Lactic acids which can be used as a preservative in food and beverages and Succinic acid which is used in resins and coatings.




**NANOCELLULOSE**  
Nanocellulose consists of incredibly light and strong fibers that can be used in a variety of applications, from coatings for packaging papers to high performance textiles and medical products. The University of Maine is a global leader in the R&D of nanocellulose applications.



**PYROLYSIS OIL**  
Pyrolysis oil is a liquid fuel produced from wood that can be used in heat and power production to substitute for fossil based oil.



**DISSOLVING PULP**  
Dissolving Pulp can be made into textiles (viscose) and composites with cotton and synthetics (rayon and acrylics). There are no facilities with this capability currently in Maine.



**INSULATING WOOD FIBER**  
Insulating wood fiber composites is an alternative wood based insulating product for homes.

**Emerging Wood Products**



## **MAINE'S FOREST BIOECONOMY AND CLIMATE CHANGE**

Sustaining and developing new markets for Maine's forest products is critical to maintaining the working forests that provide significant benefits to Maine's climate goals by sequestering carbon.

Low-grade wood harvest is an important sustainable forestry tool, which helps landowners grow better quality timber. At the same time, sawmills and paper mills produce a lot of chips, dust, and residuals as waste from the production process. Innovation is driving new market opportunities for these waste wood materials.

Public awareness of global climate change has driven governments, consumers, and manufacturers to recognize that products produced with plant materials (cellulose) from trees and other plant products can be used to replace those made with petroleum products. As new biomass from trees grows and replaces the plant materials used to produce these products, it removes carbon from the atmosphere and contributes to carbon neutrality.

Growing worldwide demand for sustainably-produced climate-friendly products is one of the greatest opportunities recognized by the industry-led effort to build a globally competitive forest industry, called FOR/Maine.

A bioeconomy strategy for Maine relies on diversification of our forest economy through the pursuit of the best and highest use for every part of the tree, resulting in greater environmental and economic resilience and the reduction and repurposing of waste.

Innovative new products include cross-laminated timber, a building material for multi-story buildings that stores carbon for the life of the building; the use of wood cellulose in building insulation products as a replacement to petroleum-dependent fiberglass insulation; biodegradable and recyclable food packaging paper that replaces single-use plastic; and transportation and heating biofuels derived from woody biomass.