AN IFIT PROJECT

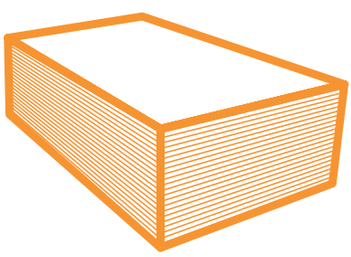
PULP BY-PRODUCT BECOMES LEADING-EDGE BUILDING MATERIAL

Enerlab 2000 will manufacture insulating and structural building panels using wood-based lignin, which have the potential to replace petroleum-based raw materials.

- Iso-Lignin is a new world-first technology developed by Enerlab that uses lignin
- the new production line will be capable of manufacturing up to 20 million board feet of insulation rigid panels and structural insulated panels

UTILIZING CANADA'S FORESTS: RESULTS EXPECTED

LIGNIN PRODUCED FROM **BLACK LIQUOR**, A BY-PRODUCT OF THE PULPING PROCESS



20 MILLION BOARD FEET OF PANELS

INNOVATING WITH WOOD

- Black liquor, the basis of lignin, is a by-product of the pulping process and an abundant and underutilized Canadian resource
- with the addition of other chemical elements organic lignin is turned into polyurethanes (PUs)
- PUs can be produced in many different forms from very low density foam to high performance composites
- products include: flexible high-resilience foam seating, rigid foam insulation panels, high performance adhesives, surface coatings, packaging, surface sealants and synthetic fibers

POTENTIAL OPPORTUNITIES

ECONOMIC: RAW MATERIAL COSTS REDUCED BY UP TO 20%

ENVIRONMENT: REDUCED ENVIRONMENTAL FOOTPRINT

MARKET: COMPETITIVE NEW POLYURETHANE-BASED PRODUCTS ATTRACTIVE TO ENVIRONMENTALLY FRIENDLY CUSTOMERS

ENERLAB 2000 IS A MANUFACTURER OF THERMAL INSULATION PRODUCTS USED FOR BUILDINGS SINCE 1982

PROJECT LOCATION:
ST-MATHIEU DE BELOEIL, QUÉBEC

The preparation of higher valued green chemicals and bio-based products favors the future use of lignin biomass components with substantial environmental and economical benefits. Lignin is the second most naturally abundant substance after cellulose.

— Armand Langlois, President
Enerlab 2000

Investments in Forest Industry Transformation Program: In 2010, Natural Resources Canada's Canadian Forest Service created the Investments in Forest Industry Transformation Program (IFIT) to support Canadian companies to develop and grow markets for new and innovative high-value products using Canada's forest resources. *For more information www.nrcan.gc.ca/forests/federal-programs/13139*

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