



Challenge: LCBA Canada– Paper Excellence on Dewatering biomass for combustion

Challenge Statement/Synopsis:

Paper Excellence has made significant strides in decarbonizing its operations, with our facilities utilizing an energy mix of 80% renewables and the remaining 20% being derived from fossil fuels.

Although we have made significant progress towards the use of renewable fuels, we desire to achieve net-zero manufacturing operations. A significant portion of our fossil-based fuels are utilized in our power boiler where waste biomass, which is mainly bark and waste wood, is utilized as fuel to generate steam for process use and for electricity generation.

One challenge that we face is the significant moisture content of our waste biomass which is typically in the upper ranges of 45 to 68% moisture. The high moisture content results in the use of supplemental natural gas to meet our required process steam and power generation requirements.

We seek to find an economical way to dewater/dry the biomass prior to its combustion within our power boilers.

Context for the Challenge:

On the cost of BC, we estimate that we could reduce GHG emissions by 150,000 tCO_{2e} per annum as a direct result of a decrease in the amount of natural gas that will be utilized in our biomass power boilers if the feed stock were at a lower moisture content.

Response Criteria:

Please provide the following information in your application/response form. Please ensure that you only provide non-confidential information.

- TRL
- Cost per kg of water removed
- Capital and operating costs
- Scale. The process must be able to support/supply fuel at a rate of 40 green tonnes of biomass per hour at 68% moisture content.



The Opportunity:

As part of the LCBA Canada program you may have the opportunity to:

- Pilot or deploy your solution with Paper Excellence, the second largest pulp producer in the world, if your solution is selected and deemed suitable.
- Meet new customers and explore new markets for your solution.
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About Paper Excellence:

The Paper Excellence Group is a private equity holding company that oversees individual pulp and paper business units. Its operations include the manufacturing of pulp and specialty, printing and writing, and packaging papers, producing over 10 million tons annually with a workforce of over 14,000 in its nearly 40 locations across the Americas and Europe.