

Final Report



Project Name	Renewable Natural Gas in the North		
Project Proponent	Lake Nipigon Forest Management Inc.		
Project Lead(s)	Scot Rubin		
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Project Learnings

Primary information obtained through the completion of the Renewable Natural Gas in the North project includes:

1. The ideal biomass feedstock was identified for both processing requirements (fixed carbon, volatile matter) as well as availability within LNFMI's forest management operations
2. Total biomass capacity of 96,000 tonnes per year was determined to be the ideal design basis for the system
3. The feedstock pre-processing, high temperature pyrolysis (HTP) process and biocarbon densification equipment descriptions were updated
4. The completion of a preliminary plant layout to show footprint requirements for each process area
5. The estimated budget (+/- 50% accuracy) for procuring the HTP system equipment

Project Successes

Completion of this project allowed LNFMI to:

1. Complete a preliminary system description and fundamental drawings for the high temperature pyrolysis technology that will be used in the Renewable Natural Gas facility
2. Update descriptions and diagrams for all processing areas, including:
 - a. wood preprocessing
 - b. wood chip feed system
 - c. high temperature pyrolysis (HTP) system
 - d. biocoal handling and collection system
3. Complete the Process Flow, Single Line, Heat & Mass Balance, and High-Level General Arrangement diagrams
4. Identify the estimated cost of the HTP equipment required to operationalize the project.

Project Failures

Through support from CRIBE, and LNFMI's partnering company, CHAR Technologies, there were no project failures.

Experience Working with CRIBE

Working with CRIBE (Centre for Research and Innovation in the Bio-Economy) on the Renewable Natural Gas in the North project was a positive and collaborative experience. CRIBE's expertise in the bio-economy, combined with their commitment to innovation, significantly contributed to the project's success. From the outset, their team provided valuable insights and guidance, ensuring that we could tap into the latest research and technologies to achieve our goals. Their approach and funding support allowed us to navigate the complexities of renewable natural gas (RNG) production in northwestern Ontario with confidence. Overall, CRIBE's support and expertise played a crucial role in successfully advancing the RNG initiative, laying the groundwork for future sustainable energy solutions in the region.

Appropriate Company Endorsement

Original signed by _____
Scot Rubin
CEO & CFO
Lake Nipigon Forest Management Inc.

September 6th, 2024
_____ Date