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## WOOD PELLET PLANT FEASIBILITY

Innovative Natural Resource Solutions LLC (INRS) has significant experience with wood pellet plant developers in the United States on feasibility studies and business/financial planning during the development phase of a project. We also provide feedstock source supply and pricing analysis for these facilities. Our clients in this sector include developers, community development agencies, governments and others.

Each wood pellet plant feasibility study is tailored to the situation and needs of the client. The following are typical components of our analyses as clients seek to better understand feedstock needs, availability and pricing, pellet plant sizing and design<sup>1</sup>, siting and financials.

### Wood Pellet Mill Feasibility

This analysis will be based on either the proposed capital equipment and plant layout scheme developed for the project or will assume a particular desired projected annual pellet output and be designed accordingly. This analysis typically includes:

- **Manufacturing Process – Part I, Raw Material** – to include the receiving and processing of the raw feedstock into the pellet plant.
- **Manufacturing Process – Part II, Pellet Manufacturing** – to include all manufacturing process from the time the wood feedstock enters that facility to final product storage.
- **Output Markets** – A thorough review of supply and demand in the retail and wholesale pellet industry in the region will be conducted.
- **Competition** – A careful review of the pellet manufacturing competition in the region will be provided.
- **Management and Staffing** – A description of likely staffing needs for the raw material and pellet manufacturing processes will be conducted.
- **Location, Site and Permitting** – An analysis of the proposal pellet plant location and site will be conducted and a review of the permitting requirements will be described.



### Pro forma Financials

A full set of *pro forma* financials will be developed for a 20-year operating scenario using an agreed-upon debt financing component for a 10-year (or other selected) period.

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<sup>1</sup> INRS typically partners with engineering firms to supply the necessary technical components to any plan.

## **Wood Availability**

INRS is an industry leader in the evaluation of biomass fuel availability and pricing, having conducted over 50 such studies for a range of clients around the country. Feedstock availability and pricing is critical to any biomass project, and our analysis typically includes the following:

- A **wood fiber sustainability analysis** for the wood basket surrounding the proposed plant site will be conducted. The purpose of this analysis is to understand the overall physical availability of wood that meets the specifications of the biomass facility..
- A **review of existing and publicly known proposed competitors** for wood fiber within a specified drive-time of the proposed facility;
- A **description of land ownership types** in the region and potential impact on wood fuel supply;
- An **analysis of existing wood supply infrastructure** in the region, and opportunities to develop that infrastructure;
- **Interviews** - INRS will identify and interview a sampling of potential suppliers<sup>2</sup> in the vicinity of the facility to establish a base of information that contains supplier capabilities, equipment, equipment limitations etc.;
- Provide an analysis of **wood pricing** for the region, including current and projected pricing



of wood for the project. This will include information on price trends, opportunities and risks associated with wood fuel purchasing.

- In-depth discussion of the **variables, opportunities and risks associated with the regional wood market**, including a discussion of how each variable can influence wood pricing. Particular attention will be given to the role of diesel fuel in biomass fuel prices changes.

*Innovative Natural Resource Solutions LLC designs each wood pellet feasibility/business plan project to meet the needs of the client. We also have extensive experience working with electricity facilities, cellulosic ethanol developers, paper mills and other woody feedstock users in various biomass energy projects. INRS prides itself on exceptional customer service, on-time delivery, and a collaborative approach focused on the client's needs.*

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<sup>2</sup> local loggers, sawmills and chip brokers