



The Madelia Model

Interconnecting Agriculture, Environment & Community

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Imagine . . .

You pull off the highway into a small rural community to fill your tank with gas and get a bite to eat. The attendant greets you with enthusiasm, pride and conversation. You sense something is different- yet comfortable.

You are in Madelia, a community that models innovation in rural community sustainability — economically, environmentally and socially.

Early in the 21st century, community leaders were looking for a different direction to lead their community. Rural America was plagued with declining populations, poverty, high energy prices and low morale.



In collaboration with other partners, Madelia explored the opportunity to develop a bio-based industrial park that utilized and provided:

- ☼ renewable energy
- ☼ local agricultural products
- ☼ value added processing
- ☼ living wage jobs
- ☼ clean emissions

A bio-based industrial park became the anchor for building a viable sustainable community that improved the economic opportunities for local families, enhanced the local environmental conditions and strengthened local schools, churches and social connections.

Driving across the Watonwan River on your way back to the main road you notice the recreational development along the river and feel good about the renewable fuel and the local grown food filling your 'tanks'. As you pull out onto the highway you smile to yourself and your mind fills with thoughts of how you could bring The Madelia Model to your community.



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What is The Madelia Model?

The Madelia Model is centered around the concept of evolving a rural community into one that promotes a sustainable mindset through the establishment of a bio-based industrial park that utilizes agricultural crops grown in the region for renewable energy and value added processing.

The bio-based industrial park would process, manufacture and package a variety of agri-

cultural crops. The energy supply would be a renewable fuel that might include wind, methane, solar, hydrogen or some other bio-based fuel. A manufacturing company would be the main anchor of the industrial park and would transform agricultural products into a value added commodity such as cellulose to plastics. Additional companies would process other agricultural products or [continued on page 2]



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convert the 'waste' streams into value added products for further processing or use.

The Madelia Model focuses on a 25 mile radius around the City of Madelia in south central Minnesota. This model would carry through an underlying theme of sustainability. Crops would be grown in a sustainable way; manufacturers would be committed to sustainable practices and the end users of the products would be committed to sustainability concepts.



In addition to jobs, this concept supports the development of viable rural communities that are less dependent of government; provide additional ecological services; and promote a social atmosphere of community. This would be WIN- WIN- WIN for rural Minnesota economically, socially and environmentally.

A strong agricultural framework is critical to revitalizing rural Minnesota. The Madelia Model vision enhances the base agricultural system by promoting crop diversity; develops new, local market opportunities; and provides local processing to add value and multiple benefits to local agricultural producers. In addition, it establishes and supports an agricultural system that builds a 'local community' mindset first; 'feed the world' mindset second.



Emerging Bioindustrial Development

A "bio-based" economy is emerging that will be fed by sustainably produced renewable resources. Ecological stress, diminishing economic prosperity and increasing demand for efficient and effective bio-based products are driving the development of innovative bioindustrial technologies, processes and consumer products. Applications include bio-based materials, chemicals, polymers, pharmaceuticals, remediation, fuels, biomass energy and technologies in production, processing, refining and manufacturing.

"High Performance Bio-industrial Development" is distinguished by its systemic approach to resource utilization and its focus on not only economic, but also ecological and social considerations. Such systems are designed to eliminate waste streams, use less energy and inputs, enhance environmental quality and provide value-added opportunities to manufacturers and local communities. Moreover, high performance bioindustrial applications can offer high quality solutions that are economically advantageous in comparison to traditional processes for producers, processors and retailers alike.

"Create a framework through multi-stakeholder collaboration for an integrated industrial system that will build on the region's strengths, embrace innovation, and catalyze market forces to advance high performance bioindustrial development that results in economic, community and ecological benefits."

With inherent and abundant agricultural, forest and renewable energy resources, the Midwest region is uniquely situated to take a leading role in bio-based industry. The development and implementation of high performance bioindustrial systems in the area can result in multiple environmental, economic and community gains, including:

- ⊗ Competitive advantages for businesses and communities
- ⊗ Agricultural diversification
- ⊗ Rural revitalization
- ⊗ Land and water quality improvements
- ⊗ Reductions in green house gas emissions
- ⊗ Biodegradable products and wastes
- ⊗ Reduced dependence on fossil fuels and other non-renewable resources

