

# Roadmap to the Green Economy

Elkhart County, Indiana



Prepared by the Delta Redevelopment Institute  
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## FORWARD

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As the 21st century shifts into a second decade, the American economy is struggling to move out of neutral, with a long climb ahead. The movement toward sustainability – the “greening” of the marketplace – is giving the economy a jumpstart, from new lines of household cleaners and plumbing fixtures to electronics, garments and even eco-tourism.

In fits and starts, this is becoming serious business, influencing conversations in the boardrooms of conservative corporate America. And why not? Brandishing preservation and sustainability demonstrates proactivity, but also traditional values. A greening economy has the capacity to revive the American economy. As an emergent culture, it will beat back threats to our global environment and national security. The development of this economy has become more opportune with the recent influx of federal stimulus funding and incentives for renewable energy, energy efficiency and workforce development.

Elkhart County is pleased to have been able to work with The Delta Redevelopment Institute and our local business and economic development partners to examine how we can best position ourselves to grow with this new Green Economy. This Action Plan is the first step in an ongoing effort to develop the infrastructure and support our local businesses need to take advantage of the world of new opportunities opening up to them through the Green Economy.

But these are not distinct opportunities, or job sectors, separating ‘green’ endeavors from other career classifications. This is a pervasive mindset, a call to arms for a prosperity revolution, and a community assignment: assess, conserve and sustain all that is good of Elkhart County’s assets and capabilities.

A green economy is not simply a tiered network of green jobs. It is a value system. Kathrin Winkler is a VP in Corporate Sustainability, and sought out advice about green jobs and careers in sustainability. “The most common questions are about how to get a sustainability job and whether (or where) to major in sustainability.” She advises individuals, and economies, to develop skillsets that fit within a global economy, and: “To have a sustainable future, people don’t need to have careers in sustainability. I think of ‘sustainability’ like ‘quality’ — it needs to be interjected into everything we do by making it part of the value system of a company.”

Be resilient, be good at whatever you do, and keep your eyes open for new opportunities to bring sustainability into a discipline that needs it.

*“As long as the public signals the politicians that it is only interested in the 205 easy ways to go green, no one is going to propose the one or two hard ways that could actually make a difference.”*

**Thomas L. Friedman**  
*Hot, Flat, and Crowded: Why We Need a Green Revolution — And How It Can Renew America*

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### Acknowledgements

Much of the information in this report was gathered from existing reports that are listed as references. Reports from the Pew Charitable Trusts, U.S. Conference of Mayors and the Hoosier Environmental Council / Renewable Energy Policy Project (REPP) were especially helpful in identifying specific industries that are emerging and that have potential to succeed. The REPP report was also able to provide data on businesses within Indiana with potential for manufacturing energy equipment.

We are also grateful to local experts who provided information for this report, including: Tim Cataldo; Kyle Hannon from the Greater Elkhart Chamber of Commerce; Steve Martin, co-founder of the Sustainable Business Network; Jim Skillen of Grubb & Ellis/Creyy & Everett; Jeff Burbrink at Purdue Technical Assistance Program; Travis Murphy from the Indiana Office of Energy Development; and Mark Bowersox of the Indiana Manufactured Housing Association and Recreation Vehicle Indiana Council.

### Purpose of this Report

This report was produced by the Delta Redevelopment Institute with a U.S. EPA grant to examine how brownfield properties in weak markets can be redeveloped for sustainable business uses. It can serve as a framework – to be built upon by stakeholders – for creating a unified vision and action plan for regional green economic development. Although Elkhart has many assets and advantages, including a large stock of available industrial sites and properties, much more can be done to identify and support promising green industries and promote credible greening of the existing business base.

## EXECUTIVE SUMMARY

The Green Economy has the capacity to help revive the American economy while addressing threats to our global environment and national security. The development of this economy has taken on greater urgency with the recent influx of federal stimulus funding and incentives for renewable energy, energy efficiency and green workforce development.

Cities, states and regions throughout the U.S. are considering how they can leverage new incentives and funding, supporting the growth of new industries and businesses linked to cleaner energy, transportation, buildings and products. Today's local economies have the potential to be tomorrow's local green economies – greener manifestations of the same industries that already have a local competitive advantage.

Areas with high employment in manufacturing, including Elkhart County, also have an opportunity to become more competitive by operating more efficiently and sustainably.

This action plan/workbook includes an overview of the Green Economy and what is driving its growth, summarizes local competitive advantages and assets in Elkhart County, and suggests action steps for each of the target sectors.

This executive summary highlights some of those action steps, which are described in more detail in this document.



### General Recommendations

**1. Establish an Elkhart County “Green Team”** to refine the local competitive advantages and lists of businesses in targeted sectors (described in Part III), add to the list of recommended action steps, set priorities and implement next steps, and promote sustainability and greening the entire business base.

**2. Support targeted green sectors.** Champions from business, government and nonprofits for targeted sectors should track incentives and financing opportunities that are important for those sectors, connect local businesses to regional and state marketing and networking events, and provide advice on needs for those sectors.

**3. Strengthen business enterprise support.** Identify specialized one-on-one technical assistance resources or experts (e.g., energy assessors or tax credit experts).

**4. Form or strengthen R & D to provide new product development and workforce training partnerships.** Consider the need for additional local incubators in addition to Notre Dame's Innovation Park. Also consider whether there is a need for new specialized programs and/or job boards for target sectors.

**5. Create demand for new green products and services** and drive down the cost of purchasing green through policies, incentives and purchasing by early adopters.

**6. Inventory available properties and assess real estate needs** for targeted sectors.

### Brief Recommendations for Targeted Sectors

#### Transportation



Encourage companies and government agencies that are investing in new hybrid and electric car/truck manufacturing and more sustainable

RVs to consider using local suppliers. Companies such as Navistar, EMC and Th!nk that are receiving federal grants may be required to consider this. The Elkhart County Economic Development Corporation may already be working on identifying local suppliers.

#### Destinations



Bring together area meeting, event and tourism stakeholders for an education and planning forum. Include Elkhart County Convention and Visitors

Bureau, local chambers of commerce, area hotels/conference centers, restaurants, parks and attractions.

#### Green Building



Showcase visible green building projects in and around Elkhart County to help promote the advantages of greener design and construction.

#### Alternative Energy



Provide marketing and business development assistance to start-up companies.

- Sponsor a local supplier directory for green building retrofit products and services.
- Host forums to highlight local companies.
- Organize groups to go to specific trade shows, such as WIndiana.

#### Waste, Re-use & Recycling



Identify all the existing recyclers in the region. Consider forming a network to identify opportunities for synergies between recyclers and re-use organizations, such as Habitat for Humanity, ReStore and LaCasa.

For complete recommendations, turn to page 24.

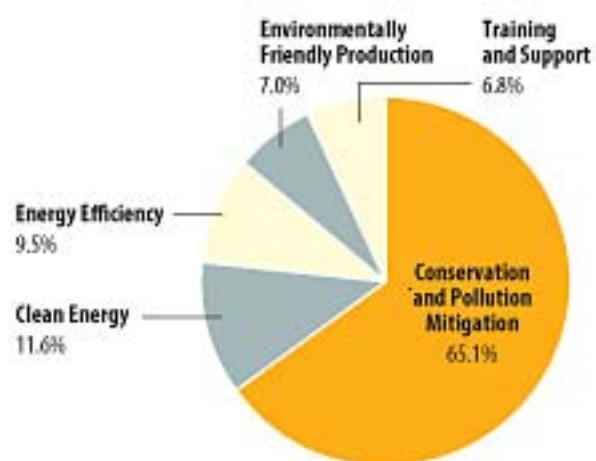
# I. OVERVIEW OF THE GREEN ECONOMY

## What is the Green Economy?

There is no one accepted definition of the Green Economy, and different reports include different sectors in their calculations. Some communities are focusing primarily on climate change. Other cities are creating broader sustainability plans or initiatives that include more traditional green sectors, such as waste management and pollution mitigation. In order to produce the greatest possible return on investment in sustainability, we believe communities should ultimately define the Green Economy in the broadest possible terms, with three important observations in mind:

**1. It's About Cleantech – and Much More.** The Green Economy is growing in response to climate change as well as looming scarcities in resources, such as water, raw materials, land and landfill space. Most national green job reports and regional studies focus on increased investment in renewable energy and energy efficiency and the growth of these industries and jobs. The Clean Energy Economy: Repowering Jobs, Businesses and Investments Across America, published by The Pew Charitable Trusts in 2009, estimates that 65% of current clean economy jobs are in the Conservation and Pollution Mitigation category, which includes jobs in water and wastewater treatment, recycling, environmental consulting and remediation services.

Jobs in the Clean Energy Economy 2007



Source: Pew Charitable Trusts, "The Clean Energy Economy: Repowering Jobs, Businesses and Investments Across America," 2009.

**2. It's About Greening Existing Businesses.** Because green jobs are still a very small part of the economy, greening all types of existing industries and businesses should be a key focus of local economic development plans. Greening existing key industries and businesses will create demand for businesses in emerging industries and also make existing non-green businesses more competitive. Wasting energy, water and other resources is expensive and likely to become more so in the future. A survey of Fortune 500 companies by the editors of The State of Green Business 2010 indicated that 86% of their environmental spending will be equal to or greater than 2009, despite the slumping economy.

**3. It's About Defining "Green Business."** Defining green business is necessary in order to create a meaningful way to measure growth and outcomes. Identifying who is green or green enough also is creating opportunities for niche professional services that include energy raters, waste auditors, green product certifiers and carbon offset verifiers in addition to consultants, architects, engineers and product designers with expertise in green buildings, green technologies or more environmentally friendly

products. Engineering, law and tax firms are also expanding their environmental and energy practices to assist businesses in navigating a growing field of regulations and financial incentives relating to energy and the environment. Finally, rapid change in the emerging economy is driving growth in organizations that provide education, information and training. Education is especially important for policymakers and implementers to be able to support rather than obstruct the emerging economy.

## Why Is the Green Economy Important?

In coming decades, the Green Economy has potential to create millions of new jobs and expand opportunities in existing business sectors, especially areas that have been hit hard by the recession. Elkhart County's traditional business base – manufacturing – has experienced a steady loss of employers and jobs since the 1970s, marked by the loss of the County's largest employer, Miles/Bayer, and the oil embargo. Since then, the most significant job losses have been related to the 2008 recession. There were 753 manufacturing firms in 2009, down from 829 in 2008. Unemployment hit 18.9% in January 2009, and is now around 14% because of rehiring in the county's dominant Recreational Vehicle (RV) industry. Many manufacturing jobs have been moved offshore, never to return, while others decline in response to changing market demand and volatile prices for fuel and other resources. Green economic development could be a valuable strategy for reinvigorating business activity and creating jobs in the region.

What kind of jobs? Contrary to popular belief, there is a wide diversity of job types connected with the Green Economy, including higher-skilled professional positions and lower-skilled, manual labor. For example, in one of the largest Green Economy growth sectors – conservation and pollution mitigation – jobs include environmental consulting, environmental monitoring and control, recycling (including material scientists), and water and wastewater professionals and technicians.

Higher-Skill Professions	Lower-Skill Professions
Energy auditors and engineers Advanced manufacturing technicians Environmental and industrial engineers Agronomists and landscape architects	Weatherization contractors Assemblers and shippers Recycling and material recovery Urban agriculture interns Transitional job trainers

## How Big is the Green Economy?

National reports estimate the current number of green jobs from as few as 750,000 to as many as 9 million, depending on definition of the Green Economy. All these estimates include jobs linked to renewable energy and energy efficiency, but some also include green products and services. Despite the current slumping economy, these national reports project continued steady growth and investment, based on both federal stimulus spending and the prospect of more supportive clean energy standards at the state and federal levels.

Despite all the enthusiasm for emerging clean tech and green industries, it's important to remember that these green jobs are less than 0.5% of total jobs now. On a state-by-state basis, Oregon is the highest, with just 1.02%. Even so, clean tech has been described by some venture capital investors as being where information technology (IT) was 30 years ago or where biotech was 10 years ago. It is growing fast, but is just getting started.

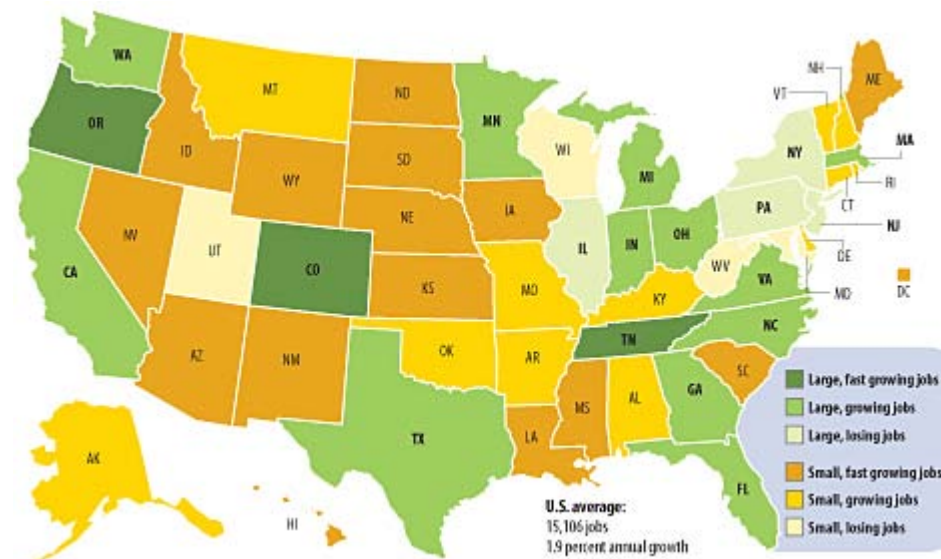
## Green Jobs Estimates for Indiana and Elkhart County

- The U.S. Conference of Mayors estimates that there were 8,900 green jobs in Indianapolis, based on 2006 employment data for specific 8-digit SIC codes that included the Renewable Energy and Energy Efficiency sectors.
- According to The Clean Energy Economy, published by the Pew Charitable Trusts in June 2009, Indiana had 17,000 clean energy jobs (including clean energy, energy efficiency, environmentally friendly production and training and support) as of 2007, placing it 13th in the nation, behind Illinois (7th) and Michigan (10th).
- The Hoosier Environmental Council report, Indiana as a Manufacturing Hub for Renewable Energy: The Possibilities and Policy Needs (Feb. 2009), forecasts employment levels in existing industries with potential to make renewable energy components. In this report, Elkhart County is ranked #12 among Indiana counties, with an estimated total of 920 jobs. More than 700 of these jobs are projected to be created within manufacturing businesses that are already making products that are somewhat similar to wind turbine components because they have the same industry classification codes. The Delta Redevelopment Institute conducted its own search of existing Elkhart County firms with similar industry classification codes and found 40 existing firms that are currently making fabricated metal or plastic products [See Appendix A]. Whether these firms with potential have interest or ability to retool to make wind components requires further research and outreach.

How Many Green Jobs are in Indiana?		
<b>8,900</b> Green jobs in Indianapolis (12th in nation)	<b>17,000</b> Clean Energy Economy Jobs in Indiana (13th in nation)	<b>40,000</b> Clean energy manufacturing jobs Indiana could gain in 10 years
<small>Source: U.S. Conference of Mayors</small>	<small>Source: Pew Charitable Trusts</small>	<small>Source: Hoosier Environmental Council</small>

**Rate of Green Jobs Growth.** Although Indiana currently lags behind Illinois in the number of clean energy jobs, its green jobs base grew at a faster rate than all but six other states with a large base. On the chart below, dark green states have the most jobs and fastest growth (CO, OR, TN), but Indiana grew faster than all other medium-green states except California, Florida and Georgia. Illinois' green job base actually shrank over the last decade.

## Clean Energy Jobs and Growth Rates, 2007



Source: Pew Charitable Trusts, "The Clean Energy Economy: Repowering Jobs, Businesses and Investments Across America," 2009.

## What's Driving Growth of the Green Economy?

**Business Drivers: Cost Savings, Supply Chain, Market Differentiation.** GreenBlz.com's State of Green Business 2010 reports that major U.S. corporations are not only seeking to cut costs but to add value to the top line by creating new product or service opportunities or positioning existing ones to be more competitive. Walmart is the latest corporate giant to announce that its suppliers are required to meet specific sustainability standards. The retailer has roughly 70,000 suppliers and is China's 6th or 7th largest trading partner. Samsung Electronics recently announced that it wants to cut its factory emissions by 50% in four years and develop eco-friendly products. Pharmaceutical giant Baxter has similar goals to reduce its carbon footprint and is pushing the standards down to its subsidiaries.

**Government Policies and Incentives.** Climate change and resource scarcity are game-changing concepts that are gaining steam at a national level and are likely to create winners and losers in the U.S. economy in the coming decades. Many major energy users are taking a proactive approach in anticipation of the adoption of federal carbon regulations. Global corporations are implementing sustainability plans for European plants where energy and waste are already heavily regulated. Other specific policy drivers include:

- **Federal Stimulus Spending.** Billions in federal stimulus funding from the February 2009 American Recovery and Reinvestment Act (ARRA) have been directed toward stimulating Green Economy demand. Another wave of federal funding is also included in pending jobs and climate bills. More than \$84 billion of the \$787 billion in ARRA funding is targeted to energy and transportation programs and investment.

## Energy and Transportation Stimulus Funding

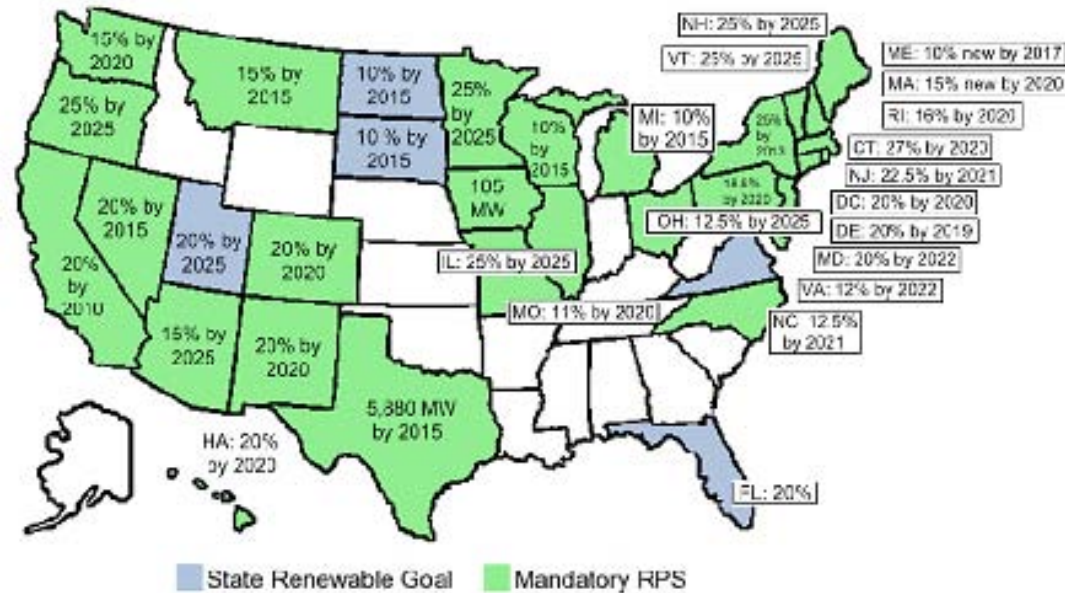
Areas	Investment
Energy efficiency and conservation	\$1.47 billion
Improving the grid	\$11 billion
Energy research	\$7.9 billion
Clean energy generation	\$6 billion
Jobs training	\$500 million
Vehicle spending	\$2.6 billion
Transportation spending	\$18.4 billion
Climate science research	\$570 million
Tax credits for renewable energy and energy efficiency	\$19.67 billion
Tax credits for alternative fuel pumps	\$54 million
Investment credits in energy generation and energy efficiency technologies	\$1.6 billion
<b>Total</b>	<b>\$84.76 billion</b>

Source: New York Times, February 14, 2009, "The Stimulus Plan: How to Spend \$787 Billion"

- **State and Local Incentives and Grants.** The Indiana Office of Energy Development, State Energy Program was awarded \$27 million in stimulus funding in 2009 for renewable energy production and green building improvements. In addition, local businesses may have access to private financial tools, such as energy service companies, carbon credits and private grants from foundations, to help fund energy efficiency or other sustainability efforts.

- **Utility Regulations.** Many states now have mandatory standards (or voluntary goals) to meet a certain portion of their energy needs with clean energy resources, such as wind, solar or hydro power. For example, Illinois law requires that 25% of the state's energy comes from renewable sources by 2025. Along with other federal incentives, these local and state standards are important for the long-term growth of renewable energy companies.

### State Regulatory Benchmarks for Renewable Energy



Source: Lawrence Berkeley National Lab

**Early Adopters of Climate Action Commitment.** Oil magnate T. Boone Pickens has spent millions on a personal campaign to raise public awareness and support for the need for energy independence. Celebrities and some faith-based groups have raised awareness about social justice issues and fair trade practices. Major industry trade groups and Fortune 500 corporations have formed alliances with environmental organizations in the past two years, such as the Blue Green Alliance (United Steel Workers and Sierra Club) and the U.S. Climate Action Partnership (with BP America and Duke Energy among its 14 founding members). More than 600 colleges and university presidents have made climate change commitments within the last 18 months.

### Keys to Developing a Local Green Economy

Every state and region has economic development programs aimed at attracting major new manufacturing plants. Elkhart County is fortunate to have already captured one major new electric car assembly plant. Although recruitment of large companies from outside the region can be successful, local economies also require effective strategies for retaining and supporting existing businesses as well as nurturing a new crop of home-grown businesses.

- **Business Retention** – Assist existing businesses in becoming more efficient and sustainable in order to become or remain competitive in the global economy.
- **Business Expansion** - Assist existing businesses as they expand into emerging sectors to replace lost markets, repurpose excess capacity and position themselves for future growth.
- **Business Creation** – Provide support for entrepreneurs and small businesses starting to take advantage of new opportunities offered by Green Economy developments.
- **Business Attraction** – Recruit other global manufacturing suppliers to the area with strength in electric vehicle and RV components.

## II. OVERVIEW OF ELKHART COUNTY'S ECONOMIC ASSETS

Green economic development sectors where a city or county is most likely to succeed are ones that build on existing economic assets. Elkhart County is fortunate to have a number of existing economic assets that it can build upon to grow its Green Economy. Advantages such a central location, a skilled manufacturing workforce and a strong business support network are assets that will benefit a broad range of economic sectors. Others are more relevant and important for targeted sectors. Picking target sectors requires a realistic assessment of where the County has competitive advantages. The following assessment of the County's economic assets is based on research by the Delta Redevelopment Institute and input from local stakeholders on:

**1. Location Advantages.** Elkhart County is fortunate to be located within half a day's drive to three major Midwest cities (Chicago, Detroit and Indianapolis) and within one day's drive to one-third of the U.S. population. It is well served by Interstate 80 and several Class 1 railroads, making it an ideal location for moving goods.

**2. Natural Resources.** Water, water, everywhere.... Elkhart County is home to three rivers (Elkhart, Little Elkhart and St. Joseph) that could potentially be an asset for new green buildings or energy-intensive businesses that are considering alternative sources of energy, such as hydropower. The County also has abundant groundwater resources and a sole source aquifer with a sandy soil base, which is excellent for some crops and may also be an asset for water-intensive green businesses, such as biofuels production. Agricultural land and forest land is also a potential asset for green businesses that rely on crops, including sources of next-generation biofuels and biomass energy generation.



**3. Existing Business Base.** Elkhart County is an iconic Midwest manufacturing center that is being tracked by national media channels as a bellwether of the future of manufacturing in America as a whole. Can a place with deep roots in making all kinds of products, from band instruments to recreational vehicles, survive the stresses of globalization, mechanization and financial meltdown? Despite steady decline in firms and jobs over the past decade, nearly 50% of total jobs in the County (roughly 38,000 jobs) are still in manufacturing sectors.

### Highest Employment in Manufacturing Sectors

Manufacturing Sectors	Number of Jobs
Transportation Equipment	18,563
Fabricated Metal Products	4,540
Furniture	2,834
Wood Products	2,539
Plastics & Rubber Parts	3,156
<b>Total</b>	<b>31,632</b>

\*at time of this report

Roughly half of the County's manufacturing jobs are in "transportation equipment" – linked to a few very large recreational vehicle (RV) and auto parts companies. However, the County also has a diverse base of other smaller manufacturing businesses in food products, machinery and chemicals. Non-manufacturing employment in the County is likely to become a larger part of the County's employment base and is currently concentrated in health care, retail and food service jobs.

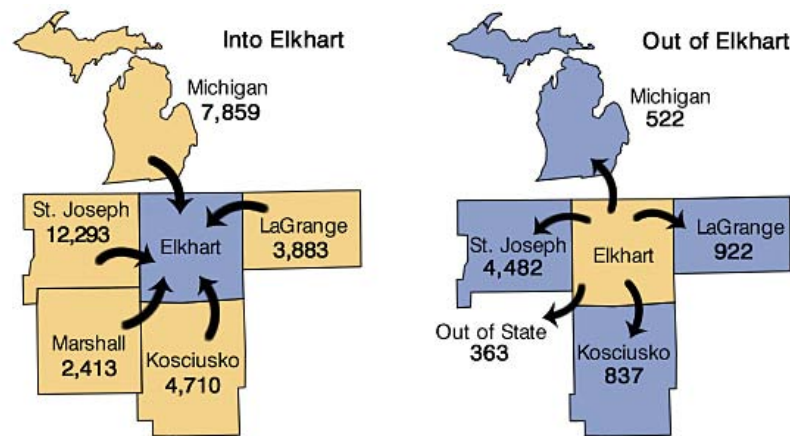
### Highest Employment in Non-Manufacturing Sectors\*

Non-Manufacturing Sectors	Number of Jobs
Healthcare	9,464
Retail	8,629
Food Service and Drinking Places	5,652
<b>Total</b>	<b>23,745</b>

\*at time of this report

Elkhart County is a net exporter of jobs, attracting roughly 30,000 residents from adjoining counties to jobs in the County, with far fewer residents commuting to jobs outside the County.

### Elkhart County Jobs Trends



Source: <http://www.stats.indiana.edu/cew/>

**4. Workforce.** The County's workforce is especially suited to manufacturing, with more affordable wage levels than the state or nation, due in part to a rising immigrant (Hispanic) population, currently the third largest in the state. A higher high school graduation rate than many big cities and strong technical college partners also make it ideal for more advanced manufacturing.

**5. R & D and University Resources.** College and university support is especially important for green economic sectors with rapidly evolving technology. The region is well served by a network of academic resources to meet the needs of a wide range of businesses.

- **Established Manufacturing Business Support.** Purdue University is a member of the federally support Manufacturing Extension Partnership and can provide technical assistance to established manufacturing businesses with a range of support needs, including: efficiency assessments, quality certifications, product/service innovation and top-line growth.
- **Agricultural Enterprise Support.** Purdue University also has strong agricultural enterprise programs focusing on aquaponics, biofuels and silviculture.
- **Early Stage Business or Product Development Support.** Notre Dame University's Office of Technology Transfer provides research expertise in: nanoelectronics, global health, flow physics, orthopedics, micro-sensing and energy. The Notre Dame Innovation Park is a business incubator and accelerator.
- **Business Research & Data.** Businesses that are considering expansion into new markets can benefit from research resources at several nearby schools, including Goshen College, Indiana University-South Bend, Bureau of Business and Economic Research, and the Indiana University Kelley School of Business, Indiana Business Research Center.

**6. Business and Economic Development Support Network.** Businesses seeking assistance with expansion can call on support from a network of government and nonprofit organizations.

- **Government Support** is spearheaded and coordinated by the Elkhart County Economic Development Corporation (EDC). This organization also serves as the link to traditional types of economic incentives (tax incentives, low-interest loans and site assistance) from the Indiana EDC and Indiana Finance Authority.
- **Nonprofit Support** in the County is primarily provided through the Elkhart Chamber of Commerce and the North Central Indiana Business Assistance Center (serving the five-county region). These two organizations provide a broad range of technical assistance and training, as well as connections to financing. A statewide organization, the Central Indiana Corporate Partnership has also recently launched a new web-based resource, Conexus Indiana, to help advanced manufacturing and logistics businesses find new customers and suppliers. A new Elkhart County Sustainable Business Network is also providing networking and education support to green businesses in the area.

**7. Local Economic Development Plans, Policies and Incentives.** Economic plans, policies and strategies can help create demand for specific types of businesses. State economic development efforts are often focused on specific target industries. For example, Ohio has become a leader in solar equipment manufacturing in part because of the state's Advanced Energy Jobs Stimulus Fund, which is pumping \$150 million over three years into advanced energy development. This fund provides incentives to companies that are retooling to add workers or retrofit equipment to supply the wind and solar market. Chicago is trying to grow recycling jobs while diverting construction and demolition waste by adopting policies that require recycling of 75% of C & D waste. Pittsburgh is targeting its building supply sector and providing incentives for companies to invest in new green product development.

Few smaller cities and suburbs have economic development plans, and those that do tend to focus on more traditional industries such as logistics or advanced manufacturing. Plans and policies are especially important in catalyzing growth in newer emerging industries such as technology or biotech industries. Elkhart County has a comprehensive plan and is working with state and federal government partners to provide support to the RV industry. It is not clear if there is any formal written roadmap for the future, however.

There are no local incentives unique to green businesses, but certain general incentives, such as a state Venture Capital Investment Tax Credit, are especially important to companies that are expanding and that have capital investment plans. Part III of this report describes some incentives that are important to specific industries or sectors.

**8. Available (Low-Cost) Commercial and Industrial Properties.** Due to long-term trends and the recent economic downturn, Elkhart County has a large supply of commercial and industrial buildings and sites that are available for no or low cost. At the time of this report, there were more than 600 properties, including 47 industrial locations that did not sell at the last tax auction. New state laws streamline the process for the County to get control of property that is in tax arrears. In addition to these troubled properties, according to real estate sources, there is also an estimated 9 million square feet on the market (four years ago, it was 1.5 million square feet) that includes for sale, for lease, listed commercial, and for sale by owner. The number of underutilized properties may be double. As in many other markets, it is currently a buyer's or renter's market, with the supply of available property far outstripping local demand.

### III. LOCAL ASSETS AND COMPETITIVE ADVANTAGES IN TARGETED GROWTH SECTORS

#### Overview of Green Economy Growth Sectors

Growth Sector	Business Opportunities
<b>Transportation</b> (Electric and Hybrid Cars & Trucks, Greener RVs)	<ul style="list-style-type: none"> <li>• Manufacturing and assembly</li> <li>• Professional Services</li> </ul>
<b>Alternative Energy</b> (Commercial-Scale Wind, Solar, Hydro & Biomass Energy Systems)	<ul style="list-style-type: none"> <li>• Manufacturing of equipment</li> <li>• Residential- and commercial-scale systems (not utility scale)</li> <li>• Professional services – new product development</li> <li>• Distribution - wholesale and retail sales</li> <li>• Construction - installation contractors</li> </ul>
<b>Waste Recycling &amp; Waste-to-Energy</b> (Utility Scale)	<ul style="list-style-type: none"> <li>• Manufacturing of recycled-content products</li> <li>• Biomass energy plants (utility scale)</li> <li>• Wholesale scrap and scavenger services</li> <li>• Retail resale businesses</li> </ul>
<b>Food &amp; (Bio-)Fuel</b> (Organic Farming, Ethanol, Biodiesel, & Other Bio-Based Products)	<ul style="list-style-type: none"> <li>• Organic farming and Community Supported Agriculture (CSA)</li> <li>• Biofuel (ethanol &amp; biodiesel) production</li> <li>• Other bio-based products</li> </ul>
<b>Green Destinations</b> (Eco-Tourism & Leisure)	<ul style="list-style-type: none"> <li>• Hospitality and venues</li> <li>• Meetings and events</li> <li>• Tourism</li> <li>• Parks and recreation</li> </ul>
<b>Green Building</b> (Construction, Landscape Design & Product Manufacturing)	<ul style="list-style-type: none"> <li>• Construction</li> <li>• Landscape firms</li> <li>• Professional Services - architects, energy auditors</li> <li>• Green building product manufacturing (energy efficient, recycled content, less toxic)</li> <li>• Green building product distribution (wholesale and retail)</li> </ul>

#### Green Transportation Manufacturing — Electric and Hybrid Cars and Trucks, Greener RVs

**1. Location.** Elkhart County is located in the heart of the Midwest auto belt – the region where most auto assembly and auto parts suppliers flourished for most of the last 50 years. Synergies with other transportation equipment companies in Michigan, Ohio and Illinois make it an ideal place for component suppliers to establish a diversified customer base. New policies and incentives in support of cleaner



transportation are already benefitting existing transportation manufacturing businesses in the County and helped attract one major new clean car company (Th!nk) to the County. Th!nk is already lining up suppliers for its new assembly plant – presenting an immediate major opportunity for existing manufacturers to become qualified as suppliers. The County is also fortunate to have strong innovation resources in place to help potential suppliers develop and commercialize new products for the clean car and greener RV industries.

Elkhart County is best known for its Recreational Vehicle (RV) industry. Researchers at the Delta Redevelopment Institute could not help but ask if it is possible to for an RV to really be green. Could the electric vehicle experts in the County help the RV industry? The answer was probably not. We learned that 90% of RVs do not have a motor. Most are trailers or campers that are pulled by another vehicle. Most also only travel 5,000 miles per year so fuel efficiency is not as important with such infrequent use. Nonetheless, a new generation of RV suppliers is doing its best to help lighten the load, use more sustainable materials and make greener RVs for the environmentally conscious baby boomers who make up the lion's share of the market for RVs.

**2. Existing Base of RV and Auto Manufacturers and Suppliers.** Despite a decline since 2007, there is still a large existing base of roughly 150 firms and more than 18,000 employees working in transportation-related manufacturing in the County. A few larger companies in this sector are already expanding into new green markets and products, in part because of new federal policies and Stimulus grants announced in 2009 (described below). For example, Navistar is already manufacturing hybrid buses and military armored vehicles and will be conducting new battery and hybrid systems research for electric delivery trucks, made possible in part by the recent award (in January 2010) of \$39.2 million in Advanced Manufacturing Tax Credits. Electric Motor Corp in Nappanee partnered with Gulf Stream Coach to build a prototype electric pickup truck. Evergreen RV is also an example of a manufacturer that is using greener components.

- **Proposed New Investment.** Th!nk North America (Norwegian company) will open a new assembly and component manufacturing plant in Elkhart County for electric cars (Think City light-weight EV-dedicated vehicle). The decision to locate in Indiana was in part due to the state's vision to become the Silicon Valley of electric vehicles, along with partnerships with Navistar and incentives offered by the state and County. The plant will initially assemble "complete knocked-down kits" shipped from Finland but plans to transition to 75 % U.S. content within a short period of time. An Indiana-based lithium-ion battery producer (Ener1) will provide a large percentage of the local content but there is also potential for a regional manufacturers to supply plastic body parts that are currently manufactured overseas.



**3. Sector-Specific Policies and Incentives.** Indiana is a state that shares President Obama's goal of putting 1 million plug-in cars on U.S. roads by 2015. The state has even more ambitious goals of becoming "a Silicon Valley for electric vehicles." The Energy Systems Network (ESN) is an initiative of the Central Indiana Corporate Partnership focused on Indiana clean tech opportunities. (<http://www.cincorp.com/energysystemsnetwork/>). The first two ESN projects, launched in 2009, both focus on electric vehicles.

“Project Plug-IN” will integrate electric vehicles and smart grid technologies in a large-scale pilot project to benefit Central Indiana commuters. The Hoosier Hybrid Partnership is focused on bringing more cost-effective light-, medium-, and heavy-duty hybrid trucks to market. The state also has a new supplier resource through the Central Indiana Corporate Partnership “Supplier Insight” and a searchable supplier database for advanced manufacturers through Conexus Indiana ([www.conexusindiana.com](http://www.conexusindiana.com)). Also, Indiana’s manufacturing base may benefit from the nearby growth market in Chicago, where the city is exploring roll-out strategies for a new public infrastructure for stations that can charge electric vehicles.

North Central Indiana has already captured a large share of the \$2.4 billion in federal Stimulus grants for Advanced Battery and Electric Motor Development awarded in August 2009, with major grants awarded to:

- **Navistar Inc.** - \$39.2 million to develop and deploy 400 advanced battery electric delivery trucks with a 100 mile radius; and
- **Th!nk North America** - \$17 million Advanced Manufacturing grant award.

The Michiana Council of Governments (MACOG) is also an early adopter of new technology. With funding from the U.S. Department of Transportation’s Congestion Mitigation Air Quality program, MACOG purchased a number of hybrid vehicles to lease to the counties and cities within the group’s four-county region.

Other federal incentives that are important to the development of the electric vehicle market include the \$7,500 tax credits for buyers of plug-in electric vehicles (Internal Revenue Bulletin: 2009-48, Nov. 30, 2009). Finally, Elkhart County Investment of \$24.7 million in the new Th!nk electric car plant was important in securing this plant, which is expected to generate 415 new jobs by 2013.

#### 4. Workforce Partnerships.

Another strong local competitive advantage for transportation-related manufacturers in Elkhart County is a strong workforce partnership with colleges and universities in the region. Ivy Tech has

Advanced Manufacturing certificate programs offered through its campus in Valparaiso and is a partner with Notre Dame University in a new Purdue University education program for Advanced Electric-Drive Vehicles. This new program received \$6.1 million in federal stimulus funding. Purdue, IvyTech and Indiana University-Purdue University Indianapolis also offer degree or certificate programs in EV technology.

**5. R&D/University Resources.** R & D is often one of the first things that businesses cut in an economic downturn. Innovation and new product development is essential for companies to compete. Elkhart County businesses also benefit from innovation resources available through Notre Dame’s Office of Tech Transfer and its Innovation Center.

**6. Sector-Specific Support Networks.** Existing support groups that are already working to strengthen the RV industry in the County include the Indiana Manufactured Housing Association and the Recreation Vehicle Indiana Council, which are hosting a supplier fair with the Economic Development Corporation of Elkhart County in July 2010 to help diversify the manufacturing customer base.

The Elkhart County EDC is also in the process of identifying local suppliers for Th!nk and Navistar (required by federal incentives) and it is generally engaged in matchmaking activities. However, participants at Delta’s March 2010 Green Economy workshop expressed a need for stronger supply chain support for the electric vehicle industry – “something like a Great Lakes Wind Network.” (The Great Lakes Wind Network, [www.glwn.org](http://www.glwn.org), is a nonprofit organization based in Cleveland that helps manufacturers



evaluate their potential fit in the global wind turbine supply chain.)

In addition, a new business support group called the Sustainability Coalition ([www.thesustainabilitycoalition.com](http://www.thesustainabilitycoalition.com)) launched in 2010 with leadership by an RV component manufacturer (Genesis Products Inc.) to engage manufacturing businesses in training, education and networking opportunities around sustainable business development principles. Sustainability planning tools for businesses are available through the Indiana Sustainability Alliance ([www.indianasustainability.org](http://www.indianasustainability.org)).

**7. Available Properties.** Due to its industrial legacy, many of the county’s available properties are industrial properties that could be re-purposed for a new generation of component manufacturers linked to cleaner transportation vehicles. Forty-seven of the 600 properties on the 2010 tax auction were industrial properties. Real estate brokers, such as a representative of Grubb & Ellis who attended Delta’s March 2010 workshop, noted that brokers are only tracking properties that are listed, but roughly 20% of these properties are obsolete. So although there is an ample supply of available properties, there is also a need to think about resources and strategies for upgrading some of this. There are currently very few LEED-certified buildings in Elkhart County. However, the timing for seeking grants for energy efficiency upgrades is ripe, given the new infusion of state and local Energy Efficiency Conservation Block Grant (EECBG) funding that was awarded in 2009 and 2010 to both Elkhart County and the State of Indiana.

## Alternative Energy — Commercial-Scale Wind, Solar, Hydro and Biomass Energy Systems

Alternative energy or renewable electric power generation is another cornerstone of the Green Economy. Many cities and regions are hoping to grow their green economies by promoting wind, solar, biomass, geothermal and hydro power. The area has the following assets to support further development of this sector:

**1. Location.** Elkhart County is not far from major wind farms and equipment manufacturers in Central Indiana and those in Illinois, Michigan, and Ohio, states with especially strong commitment to utility-scale wind. More importantly, it has in its own backyard a large base of heavy energy users (potential for commercial-scale alternative energy systems, such as Combined Heat & Power (CHP), rooftop solar or small-scale wind).

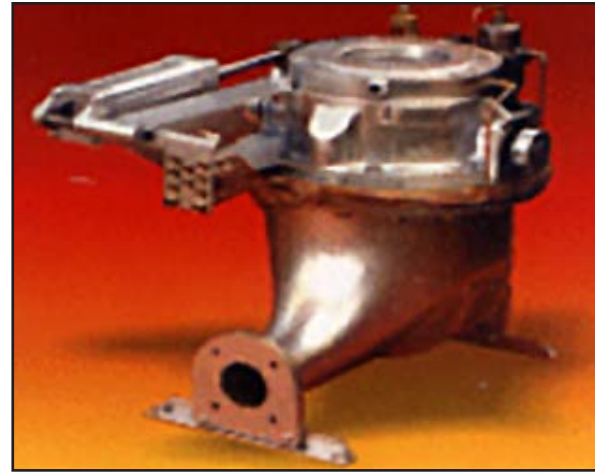
**2. Natural Assets.** Elkhart County has three rivers that once served as a source of hydro power. A restored historic mill in Goshen is an example. Could hydro power once again be a source of power for businesses or green buildings in the County with the right mix of incentives and local hydropower expertise? One existing business in the County (Lucid Energy) is in the process of commercializing new hydropower equipment.

Wind and sun conditions in the County and most parts of the region are only considered fair compared to other parts of the nation, but conditions may nonetheless be good enough for residential- and commercial-scale solar systems. The County also has a large amount of farmland and open land for biofuel feedstock. (Note: Crop production for biofuel is covered in the Sustainable Agriculture section, but location near feedstock sources may also be an advantage for biomass and biofuel demonstration projects.)



### 3. Existing Business Base with Potential to Expand into Renewable Energy Components.

There is an existing base of nearly 300 existing fabricated metal, machinery and plastics manufacturers in the County. Roughly 80 of these are a potential match for renewable energy (wind, solar, biomass or geothermal) components identified by the Renewable Energy Policy Project (and promoted by the Hoosier Environmental Council). Examples of existing base of alternative energy manufacturing firms include: Lucid Energy in Goshen /Nappanee – developing hydro and wind turbines; Energy Inc. – developing waste-to-energy systems connected to landfills with a demonstration project planned in Middlebury; Advanced Energy Works – developing biomass-fueled Combined Heat and Power Systems with potential application for aquaponics; Inventure Electronics, Goshen-based electronic product design with potential green building applications; and Gillette Generators, Elkhart-based generator manufacturer. Examples of existing base of residential and commercial solar and wind equipment distributors include: Home Energy LLC, Abundant Energy, Solar Energy Systems LLC, and Take Action Solar & Wind. There are a few existing professional service firms that conduct engineering and feasibility studies that could expand with the market for renewable energy.



**4. Sector-Specific (Alternative Energy) Workforce Programs.** The Advanced Manufacturing certificate program at Ivy Tech is another resource that benefits all manufacturing sectors.

**5. Sector-Specific (Alternative Energy) R & D/University Resources.** Due to the rapidly evolving nature of alternative energy, several universities have established programs providing technical support for new products development, including the University of Notre Dame.



**6. Sector-Specific (Alternative Energy) Business Support Networks.** As with other states, support groups for energy sectors are at the state and regional level. State government and nonprofit support groups include the Indiana Office of Energy Development – major sponsor of WIndiana 2010 conference – and the Hoosier Environmental Council. Another advocate for renewable energy manufacturing is the Energy Systems Network (<http://www.cincorp.com/energysystemsnetwork/>), which at present is focusing on electric vehicles. Although the Elkhart County EDC is generally engaged in matchmaking, there is a need for a stronger supplier matching. The Great Lakes Wind Network is another support organization based in Cleveland. There is also a need for a local support group to organize and prepare

companies to participate in state and national wind conferences. Individual energy equipment companies are also playing a key role in providing education and ROI analysis. More venues are needed for these companies to connect with potential customers and supply chain partners, as well as other support to help identify customers. Conexus Indiana also is an online supplier database for advance manufacturers.

Participants at Delta's March 2010 workshop also noted a need for additional support to help with education on "micro solutions," and marketing support for local vendors (someone noted there used to be manufacturer directories) .

**7. Sector-Specific (Alternative Energy) Policies and Incentives.** These are being offered through state, federal and nonprofit support organizations. State incentives are offered by the Indiana Office of Energy

Development ([www.in.gov/oed/](http://www.in.gov/oed/)). A range of state energy grants are offered. The first \$27 million in additional Stimulus State Energy Plan (SEP) grants are now closed, but regular SEP grants are available July 1. Incentives are also offered through the Indiana Office of Energy Development, which offers tax credits for ENERGY STAR appliances (including furnaces and central air systems).

There is no state Energy Office representative for the region. Access to capital is also needed. The Indiana Economic Development Corporation is helping meet this need through a 20% venture capital investment tax credit (see <http://www.in.gov/iedc/files/vcitic.pdf> for more details).

Another key incentive for most owners of alternative energy projects is the federal Production/Investment Tax Credits for investment in renewable energy property. The American Recovery and Reinvestment Act (ARRA, or Stimulus) extended the Production Tax Credit (PTC) for five years and added the option of cash grants in lieu of the 10% or 30% Investment Tax Credit.

Nonprofit organizations also provide free or subsidized energy assessments funded by federal contracts. These include the Midwest Clean Energy Application Center at the University of Illinois Chicago (UIC) ([www.chpcentermw.org](http://www.chpcentermw.org)). Services include: unbiased information, targeted education and technical assistance to end users (e.g., on-site assessments) on commercial and institutional Combined Heat & Power (CHP) and District Energy systems.

**8. Available Properties Suited for Alternative Energy Manufacturing, Design or Distribution.** Site-specific assessments are typically needed to determine if a property is suitable for renewable generation. The City of Elkhart is targeting redevelopment of one larger former foundry site, which is located on the Elkhart River and which may have special suitability for hydro power. Site located near wood-product companies may also be advantageous for a biomass energy facility.

## Waste Recycling and Waste-to-Energy

Elkhart County has some opportunities to capitalize on the growing waste recycling and waste-to-energy market. The area has the following assets to support further development of this sector:

**1. Location.** The County is located near major metropolitan areas with large waste streams and demand for office and building products made of recycled materials. The County has 135 furniture and wood product manufacturers, plus many more in surrounding areas, that can take advantage of recycled and reclaimed material or provide scrap for waste-to-energy businesses. Finally, like elsewhere in the nation, there are numerous home foreclosures and demolitions taking place that could provide a steady supply of waste for deconstruction businesses.

**2. Natural Assets.** A substantial amount of waste is generated by the local wood industry, livestock production (poultry, hog, beef), restaurants and food manufacturers (Meyers Central Kitchen, Noodle factory, Bristol Corn Dog and Rainbow Bread). Some of these waste producers (individually and collectively) could support utility-scale waste-to-energy equipment, such as anaerobic digesters.

**3. Existing Waste-Related Business Base.** Although more research is needed on businesses that use or reuse waste materials, there are currently a handful of Elkhart County businesses in the waste category, including:



- Four used building material stores (3 Habitat ReStores and LaCasa)
- One demolition company doing deconstruction (ADEC Industries)
- Electronic recycling of computers, peripherals, cell phones, TVs, VCRs, etc. (Goodwill)
- Some scrap wood recycling for landscaping and animal bedding (VIN and Evergreen)
- Scrap metal haulers (Himco, Fast Track Recycling, Elite Recycling, Schupan, OmniSource and Sam Winer and Sons)
- Tire recycling (Entech)
- One manufacturer exploring wood and waste biomass conversion (Genesis, Inc.)

**4. Waste-Related Workforce Training Programs.** The federal government has provided \$3 - \$4 million in training funds for displaced RV workers, but those funds remain largely untapped. Perhaps some of these funds could be directed toward training in deconstruction or value-added craftsmen apprenticeship programs.

**5. Waste Reduction and Material Reuse R&D/University Resources.** Purdue University recently received a \$20 million research grant for biomass conversion.

**6. Waste Reduction and Recycling Support and Incentives.**

Elkhart County Solid Waste Management District offers a Reutilization Incentive Program that consists of low-interest loans or grants for manufacturers using scrap and waste materials. There is also a state-maintained material exchange website: <http://www.in.gov/recycle/5633.htm>. There may be a need for even stronger incentives and demand-creation efforts, though, to counteract the current low cost of landfilling and low commodity prices for recycled materials. In 1999, 50% of the waste stream in Indiana was recycled; in the last two years, just 28% was recycled.

**7. Available Property Ideally Suited to Waste-Related or Reuse Businesses.** Obsolete (affordable) industrial buildings may be suited for certain types of waste-related businesses such as used material storage or value-added processing. For some waste-related businesses such as waste-to-energy plants or commercial composting businesses, large industrial or rural sites are needed, since they tend to be viewed by the public as an eyesore. For example, discussions are currently underway in Elkhart County to set up a waste-to-energy plant adjacent to a local landfill.



**Food & (Bio-)Fuel Production — Organic Farming, Ethanol & Biodiesel and Other Bio-Based Products**



There are limited opportunities for Elkhart County in this sector, based on the following analysis:

**1-2. Location and Natural Assets.** Elkhart County is adjacent to counties with larger agricultural bases in both Indiana and southwest Michigan. However, under current conditions, most of the region's farmland is deemed too valuable for bio-fuel production and is therefore committed to higher-value crops such as produce. The area's abundant groundwater resources are an asset to both conventional farming and potential bio-fuel and bio-businesses.

**3. Existing Agricultural and Bio-Based Product Business Base.** Agricultural employment is small (23 enterprises with 151 employees) in Elkhart County, but a larger number of jobs in food manufacturing base (21 firms with 1,166 employees). Most farms are conventional farms, but there are some local farms already specializing in organic farming (for example, Culver Duck and Maple Leaf farms). There are also a number of livestock, poultry and pig farms that are small but have potential to support a waste digester operation. The number of existing biofuel feedstock producers or bioplastic manufacturers in the County is unknown. Additional research is needed to assess the existing business base in this sector.

**4. Workforce and Training Programs.** Elkhart County's growing immigrant population could be an asset for seasonal crop production. The federal government has provided \$3 - \$4 million in training funds for displaced RV workers, but those funds remain largely untapped. Work is in progress to use some of these funds for others types of training.

**5. Agriculture and Biofuel Support Networks.**

- Michiana Organic Growers Association
- Food Banks provide support for locally produced food
- Biofuel support: Indiana Office of Energy Development
- Purdue University Agricultural Extension

**6. Agriculture and Biofuel Policies and Incentives.** There are extensive public policies and incentives that could be leveraged to promote sustainable agriculture, biofuels and bio-based products in Elkhart County. For example:

- **Bio-based Products Purchase Requirement.** State government agencies and state-funded educational institutions must purchase bio-based products wherever possible.
- **Federal Renewable Fuels Standard and Biofuel Subsidies.** Significant ramp up in current biofuel production will be needed over the next 12 years to achieve the federal goal of 36 billion gallons of biofuel by 2022 (three times the current level). Federal biodiesel subsidies (\$1/gallon tax credit for biodiesel blenders) will continue to be important.
- **Midwest Biofuels Promotion Plan.** Indiana is a member of an Energy Security and Climate Stewardship Platform Plan that establishes goals for the Midwest region, including increasing biofuel use to 50% of all transportation fuel consumed by 2025.
- **Public fleet biofuel blend use.** Government entities and state education institutions are required to fuel diesel vehicles with at least 2% biodiesel.
- **E85 Fuel Use Rebate.** Up to \$33.33 per month for each Flex Fuel Vehicle (FFV) by a municipality or special taxing district.
- **USDA Rural Energy for America Program (REAP)** provides grants and loan guarantees to help farmers and rural businesses develop farm-based clean energy opportunities.
- **USDA Biomass Crop Assistance Program (BCAP)** provides generous incentives to establish and develop infrastructure for next-generation biofuels from switchgrass and miscanthus. There needs to be an approved biomass conversion facility in the vicinity first, however, and Elkhart is fortunate to have one nearby in Noble County (Pennington Seed in Ligonier).
- **USDA Know Your Farmer, Know Your Food Initiative** is now coordinating their community and local food programs with new funding starting in October 2011 (federal fiscal year FY11).



**7. Available Property Ideally Suited for Food or Fuel-Crop Production.** There is a city-owned brownfield property located near a food bank that could support a community food project.

## Green Destinations — Eco-Tourism and Leisure



**1. Location.** Elkhart County is only a few hours' drive from major metropolitan centers such as Chicago, Indianapolis and Detroit and already draws a strong tourism trade from the region. To Elkhart's benefit, the economic downturn has increased demand for shorter, more cost-effective, closer-to-home vacations that emphasize local history, cultures and tastes.

**2. Natural, Recreational and Cultural Assets.** Elkhart County has a wide variety of natural, recreational, and cultural assets, including access to water recreation (river edge parks, whitewater rafting, beaches, and canoing/kayaking on the St. Joseph and Elkhart Rivers; two sections of the Elkhart River are on the State's "Outstanding Rivers & Streams" list); biking (more than 25 miles of bike paths); botanic gardens and nature preserves; local food and beverages (farmers markets, wine tours) and unique cultural assets (Amish farms and businesses; annual jazz festival); and historical heritage (annual quilt tour and the heritage trail).

**3. Existing Hospitality and Tourism Business Base.** A significant portion of Elkhart's non-manufacturing employment base relates to hospitality and tourism. Food service and drinking places (5,652 jobs) and retail (8,629 jobs) represent the fifth largest job segment in the region. The Elkhart County Convention and Visitor's Bureau has made the Amish sites, historic heritage and other local food, arts and crafts a centerpiece of tourism promotion, providing a strong foundation for a green destination marketing strategy. A local developer is looking into establishing a "green" resort in the Elkhart area. With the influx of alternative fuel vehicle manufacturers to the area, Elkhart may be able to partner to deploy electric or flex-fuel vehicles to support eco-friendly tours and events.

- **Barriers.** Although Elkhart County has many unique assets to commit to eco-tourism, there are several barriers to going forward. Chief among these is Elkhart's image as an industrial manufacturing center with numerous abandoned buildings and blighted properties requiring clearance or remediation. To be a legitimately green destination, Elkhart County would have to attend to these and other infrastructure issues, such as transportation, waste management, water management, etc. There would also need to be a concerted effort to educate the local hospitality industry about sustainability standards for this industry and assist these businesses in taking steps to adopt more sustainable practices and products.

## Green Building — Construction, Landscape, Design and Product Manufacturing



Elkhart County has the following assets to support further development in this sector:

**1. Location.** The green building movement is just getting off the ground in Elkhart County, where there are very few LEED-certified buildings completed or under construction. Proximity to major metropolitan areas where there is demand for green building products and services to meeting LEED or other green building standards provides opportunities for Elkhart manufacturing businesses to

serve this market locally and regionally.

### 2. Existing Green Building-Related Business Base.

Construction is a relatively large part of Elkhart's economic base, consisting of more than 400 firms with roughly 2,700 employees. One local home builder, Garden Homes, Inc. is building green homes certified by the National Association of Home Builders (NAHB). With a large available building stock, the amount of new commercial construction is limited, but there is potential for deconstruction and reclamation, green redevelopment, renovation and retrofitting to upgrade vacant property and attract new users. Given Elkhart's existing capacity in prefab and mobile home manufacturing, a number of Elkhart manufacturers have or are considering expanding into green building products or services. For example, Anco Products makes recycled fiberglass insulation and Air Tite Insulations is a local home builder that provides "weatherization" services. Green landscaping and the growing popularity of rain gardens and green infrastructure could provide a potential market for more local native plants nurseries and seed vendors. JF New has a native plant nursery in Walkerton and Spence has one near Ft. Wayne. More research needs to be done to identify more current and potential green building product and service providers in Elkhart County.



**3. Workforce and Training Assets.** More than 1,500 of Elkhart's construction jobs are currently specialty trade contractors. The U.S. Green Building Council has an office in nearby St. Joseph County that provides education and outreach for building owners and developers. The Builders Association of Elkhart County also has a "green building network" but it is not clear what green standards this network supports.

### 4. Green Building Policies and Incentives.

- There is a 30% federal tax credit for energy efficiency improvements and small-scale renewable energy systems. The ARRA (Stimulus) Bill removed the ceiling on these tax credits.
- Energy efficiency stimulus grants to state and local government are funding public building retrofits and weatherization work for low-income homeowners (\$629,800 in Elkhart County and \$557,300 in the City of Elkhart in 2009 awards).
- State tax credits are available for ENERGY STAR appliances, including furnaces and central air systems.
- Revolving loan fund sources could help support energy efficient building retrofits (such as Low-Income Home Energy Assistance Program, urban weatherization funds, or State Energy Plan grants).

**Barriers to Green Building.** Overall, the idea of building green is just beginning to take hold in Elkhart County, and there are not a lot of local incentives to build green. The County can help drive demand by doing energy efficient retrofits to its own facilities or replacing street lights with more energy-efficient lighting. Elkhart County and the City of Elkhart could also use its federal grant funds to promote energy efficiency retrofits in the commercial and residential market, helping to stimulate demand for skilled contractors.

## IV. POTENTIAL ACTION STEPS

### General Recommendations

- 1. Establish an Elkhart County “Green Team”** to refine the local competitive advantages and lists of businesses in targeted sectors (described in Part III), add to the list of recommended action steps, set priorities and implement next steps, and promote sustainability and greening the entire business base.
- 2. Support targeted green sectors.** Champions from business, government and nonprofits for targeted sectors should track incentives and financing opportunities that are important for those sectors, connect local businesses to regional and state marketing and networking events, and provide advice on needs for those sectors.
- 3. Strengthen business enterprise support.** Identify specialized one-on-one technical assistance resources or experts (e.g., energy assessors or tax credit experts).
- 4. Form or strengthen R & D to provide new product development and workforce training partnerships.** Consider the need for additional local incubators in addition to Notre Dame’s Innovation Park. Also consider whether there is a need for new specialized programs and/or job boards for target sectors.
- 5. Create demand for new green products and services** and drive down the cost of purchasing green through policies, incentives and purchasing by early adopters.
- 6. Inventory available properties and assess real estate needs** for targeted sectors.

### Transportation Recommendations

- 1. Encourage companies and government agencies** that are investing in new hybrid and electric car/truck manufacturing to consider using local suppliers. Find out if there is a need for help in identifying local suppliers. [Note: Companies such as Navistar, EMC and Th!nk that are receiving federal grants may be required to consider this. The Elkhart County Economic Development Corporation may already be working on identifying local suppliers.]
- 2. Encourage potential suppliers to new electric car/truck manufacturers** to consider expansion into the hybrid and electric car/truck market if they have not already done so. Tell them what Elkhart County’s “green team” can do to encourage and support them through:
  - **Information to better understand the economic opportunity** and specific Original Equipment Manufacturer (OEM) requirements for suppliers. (The green team would need to get this info from Navistar or Th!nk supply chain people. It could also get general industry outlook info from people like Matt Waldo at IEDC.) Resources and incentives to help potential suppliers retool. (Invite Travis Murphy or others from IN Energy Office and IEDC back to present on this.)
  - **Connections to R & D support groups.** This is often the first thing cut, but companies need to keep innovating to survive. Invite a panel of resource people to present on how they can help with R & D.
  - **Connections to marketing resources** such as the Connexus Indiana database.
- 3. Help identify and promote the modernization of industrial space for expansion.** There may also be a need to identify buildings that are the best candidates for EE/green building retrofitting. Consider whether a portion of the County’s EECBG money could be used to set up a revolving loan fund for building retrofits.
- 4. Provide additional marketing support** for transportation-related suppliers through:

- Sponsorship of supplier trade shows (with industry partners);
- Sponsorship of a supplier directory; and
- Encouragement of manufacturers to register on the Connexus Indiana database.

### Alternative Energy Recommendations

- 1. Provide marketing and business development assistance to start-up companies.**
  - Sponsor a local supplier directory for green building retrofit products and services.
  - Host forums to highlight local companies.
  - Organize groups to go to specific trade shows, such as WIndiana.
- 2. Conduct outreach to key companies** (sector leaders in wind, solar, hydro, biomass) and determine what they need. Assign an “account rep” from a business support group to conduct regular check-ins (if companies are receptive to this).
- 3. Assign a business support person** to continue providing alerts and information on incentives.

### Waste, Re-use & Recycling Recommendations

- 1. Identify all the existing recyclers in the region.** Consider forming a network to identify opportunities for synergies between recyclers and re-use organizations, such as Habitat for Humanity, ReStore, LaCasa, etc.
- 2. Promote and strengthen these existing programs and policies:**
  - Elkhart County Solid Waste Agency Resource Reutilization Incentive Program (low-interest loans or grants for manufacturers using scrap and waste materials);
  - State materials exchange website; and
  - State-wide electronic recycling programs.
- 3. Consider new policies to create incentives for recycling, such as:**
  - Identify manufacturers that use recycled materials in their products and find out if they are getting adequate supply of materials.
  - Explore setting minimal standards for procurement of products that have some recycled content at the city, county and state level.

### Destinations Recommendations

- 1. Bring together area meeting, event and tourism stakeholders** (Elkhart County Convention and Visitors Bureau, local chambers of commerce, area hotels/conference centers, restaurants, parks and attractions) for an education and planning forum.
- 2. Further refine key existing assets** that could be incorporated into a Green Destination strategy.
- 3. Identify gaps and barriers** for promoting greener transportation options, waste management and composting options and other practices that may need to be addressed.
- 4. Encourage stakeholders to implement sustainable practices** and/or seek relevant certifications such as LEED, Green Seal, Green Restaurant, APEX, etc.

**5. Encourage local and state government to assist with needs** such as greener transportation options and policies, stronger recycling and composting incentives, etc.

## Green Building Recommendations

**1. Showcase visible green building projects** in and around Elkhart County to help promote the advantages of greener design and construction.

**2. Increase awareness among building owners and operators** about the financial incentives and marketing benefits of green building improvements.

**3. Explore the potential for local incentives to promote green building**, e.g. tax incentives, rebates, reduced fees, streamlined permitting, green building codes, and energy conservation ordinances.

**4. Identify current and potential Elkhart-area manufacturers** that could retool to produce green building products such as eco-friendly insulation, prefab components, etc.

**5. Organize a delegation** of interested architects, developers, contractors and manufacturers to attend the annual GreenBuild Conference.

**6. Consider expanding the local chapter of the U.S. Green Building Council** located in South Bend or start an Elkhart County green building networking group to work with local stakeholders on advancing the industry.

## LOCAL, REGIONAL AND NATIONAL RESOURCES

	Organization	Website
BUSINESS SUPPORT	Elkhart County Chamber of Commerce	www.elkhart.org
	North Central Indiana Business Assistance	www.michiganatech.org
	Central Indiana Corporate Partnership & Energy Systems Network Partners	www.cincorp.com www.cincorp.com/energysystemsnetwork
	Indiana Housing Association and Indiana Manufactured Housing Association	www.imharvic.org
	Indiana Office of Energy Development	www.in.gov/oed Travis Murphy: tmurphy@oed.in.gov
	Hoosier Environmental Council	www.hecweb.org
	US Green Building Council: Indiana chapter	www.usgbc-in.org
	Indiana Association of Community Economic Development (IACED)	www.iaced.org
	Gov. Daniels	www.in.gov/gov
	Indiana Housing and Community Dev. Authority (IHCDA)	www.in.gov/ihcda
	Indiana Finance Authority	www.in.gov/ifa
Ball State College of Architecture & Planning	www.bsu.edu/cap	
TRANSPORTATION SUPPORT	Recreation Vehicle Indiana Council	www.imharvic.org
	Elkhart County Economic Development Corporation	www.elkhartcountybiz.com/pdfs/future-vehicles
	Purdue University, Calumet & Notre Dame-Advanced Electric Vehicle Training	www.webs.calumet.purdue.edu/ems & www.nd.edu/engineer
	Conexus Indiana	www.conexusindiana.com
	Energy Systems Network & Hoosier Hybrid Partnership	www.cincorp.com/energysystemsnetwork
	Center for Auto Research (Ann Arbor)	www.cargroup.org
Electric Drive Transportation Association	www.electricdrive.org	
ALTERNATIVE ENERGY SUPPORT	Great Lakes Wind Network	www.glwn.org
	Indiana Office of Energy Development	www.in.gov/oed
	Notre Dame Energy Center	www.energycenter.nd.edu
	American Wind Energy Association (AWEA)	www.awea.org
	American Solar Energy Society (ASES)	www.ases.org
	Midwest Energy Efficiency Alliance	www.mwalliance.org
	Great Lakes Wind Network	www.glwn.org
WASTE, RECYCLING & POLLUTION MITIGATION SUPPORT	Indiana Department of Environmental Management (IDEM)	www.in.gov/idem
	Indiana Recycling Coalition	www.indianarecycling.org
	Indiana Department of Environmental Management (IDEM)	www.in.gov/idem
	Central Indiana Clean Air Partnership	www.indycicap.org
URBAN AGRICULTURE SUPPORT	Purdue University Cooperative Extension Service	www.ag.purdue.edu/extension/pages/default.aspx
	Indiana Aquaculture Association	www.aquanic.org/iaa/
	Kansas State University, Technical Assistance for Brownfields (TAB) program	www.engg.ksu.edu/CHSR/outreach/tab
GENERAL SUPPORT	Ball State College of Architecture & Planning	www.bsu.edu/cap
	Ivy Tech Advanced Manufacturing programs	www.ivytech.edu/advanced-manufacturing-institute
	Purdue University Technical Assistance Program	www.tap.purdue.edu
	Delta Institute	www.delta-institute.org
	Delta Green Business Development Center	www.delta-institute.org/enewsletter/volume4/issue1/GainingGround4.1.4.php

## APPENDIX A: Potential Wind Component Manufacturers in Elkhart County, Indiana

This appendix was compiled by the Delta Institute using information from databases kept by the Elkhart County Economic Development Corporation (<http://www.elkhartcountybiz.com/main-industries.html>) and reports written by the Renewable Energy Policy Project ([http://www.repp.org/articles/static/1/binaries/IN\\_BG\\_report.pdf](http://www.repp.org/articles/static/1/binaries/IN_BG_report.pdf)) for the Hoosier Environmental Council ([http://www.hecweb.org/wp-content/uploads/2010/04/Component\\_Manufacturing\\_Long\\_Report.pdf](http://www.hecweb.org/wp-content/uploads/2010/04/Component_Manufacturing_Long_Report.pdf)). The chart below includes companies that have the potential to fabricate wind industry products based on their primary NAICS code – codes Delta matched to those used by wind equipment manufacturers elsewhere – but not every company is a current wind component manufacturer.

NAICS	Company Name	Line Of Business
FABRICATED STRUC-TURAL METAL (332312)	Afc Industries Inc	Steel fabricator
	Art Iron Inc	Steel fabricator; wholesales steel; steel mill
	Central States Fabricating	Mfg Steel Fabricating & Machine Shop
	DH Machine Inc	Steel fabricator
	Elixir Industries	Steel fabricator; manufactures metal doors, sash & trim; sheet metal fabricator
	Evans Metal Products Co Inc	Structural Metal Fabrctn Mfg Architectural Mtlwrk
	Farm Fab	Steel Fabricating
	General Crafts Corp	Mfg Misc Structural Mtl Mfg Machine Tool Access Mfg Architectural Mtlwrk Mfg Sheet Metal-work
	Helgeson Steel Inc	Structural Metal Fabrication
	M & M Fabricators Corp	Steel fabricator; manufactures extruded aluminum products; manufactures motor vehicles & car bodies; manufactures motor vehicle frames
	Marson International LLC	Structural Metal Fabrication
	Millmark Enterprises Inc	Structural Metal Fabrication
	Nello Capital Inc	Steel Fabrication
	R & D Metal Fab	Metal Fabrication
	R&H Specialties Inc	Manufactures Structural Metalwork
	Right Angle Steel & Fabctn	Mfg Misc Structural Metalwork
	Right Angle Steel & Fabctn	Structural Metal Fabrication
	Shop & Steel Inc	Mfg Iron Structural Reinforcements
Weaver's Welding	Structural Metal Fabrication Welding Repair	
ALL OTHER PLASTIC PRODUCTS (326199)	Abi Plastics LLC	Injection Molding Of Plastics
	Advanced Thermoformed Products	Mfg Thermoformed Products
	Aero Design	Mfg Plastic Products Auto Body Repair/Painting
	Altec Engineering Inc	Manufactures processed plastics; manufactures fiberglass fabric; manufactures plastic plumbing fixtures; manufactures travel trailers & campers
	Ameri-Kart Corp	Manufactures plastic garbage containers; manufactures plastics materials & resins; manufactures hydraulic lift tables; wholesales plastics products
	AR Tee Enterprises Inc	Mfg Plastic Injection Parts And Industrial Molds
	Atlantis Plastics Plant 2	Mfg Plastic Products
	Better Way Partners LLC	Manufactures fiberglass products
	Cpi Plastics Group Ltd	Mfg Plastic Products
	Crane Composites Inc	Warehouse
	Exton Inc	Manufactures finished injection molded plastic products
	Fiber Tron Corp	Manufactures fiberglass products; laminating services
	Firan Parts & Service	Mfg Plastic Products
	GS Plastics Inc	Manufactures molded plastic products
	Hart Plastics Inc	Manufactures thermoformed plastic products; manufactures motor vehicle parts & accessories; manufactures hardware

IRON FOUNDRIES (331511)	G & W Industries Inc	Mfg Gray Iron Ductile Iron
MOTORS AND GENERATORS (335312)	Elkhart Starter & Alternator	Mfg Motors/Generators Mfg Engine Electrical Equipment
	Engenaire	Mfg Motors/Generators
	Fasco Industries	Manufactures motors or generators; wholesales electric motors
	Industrial Motor & Tool	Mfg Motors/Generators
	Onan Corp	Manufactures electric generators & sets; wholesales electrical apparatus & equipment; plumbing, heating & air conditioning contractor

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## About Delta Institute

The Delta Institute is a Chicago-based nonprofit organization leading the transformation of the Great Lakes region into a vital center of the Green Economy. With our affiliate, The Delta Redevelopment Institute, we are helping blaze a trail to the green economy so that businesses, communities and individuals throughout our region can share in its benefits. Delta fills funding gaps and implements innovative programs that promote a healthy environment, a strong economy and thriving, vibrant communities in the areas of Energy Efficiency and Climate Change Programs; Green Business and Government; Pollution Prevention, Remediation, and Reuse Investments; Sustainable Community Economic Development and Information Dissemination and Capacity Building.

## Other Delta Green Economic Resources

**Delta's Green Business Development Center** helps green and greening businesses make economically, environmentally and socially sound choices about greening their operations, buildings, products and supply chains. For more information about consulting, planning and financial services, visit [www.delta-institute.org/content/green-business-development-center](http://www.delta-institute.org/content/green-business-development-center).

**Delta Training Institute** provides workshops and training programs designed to unlock the potential of the green economy for businesses, municipalities and support organizations throughout our region. For information on upcoming programs and customized training options, visit [www.delta-institute.org/content/learning-center](http://www.delta-institute.org/content/learning-center).

**"Gaining Ground" eNewsletter:** A source of news, tools and opportunities for growing the green economy. Sign up for regular information updates at [www.delta-institute.org/content/contact-us](http://www.delta-institute.org/content/contact-us).

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