

# PROJECT LEADERS





# PROJECT PARTNERS







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# **SUMMARY**

This Action Plan presented is part of the regional planning work conducted as part of the response to the announced closure of the Kewaunee Nuclear Power Station, owned and operated by Dominion Energy. This report follows the previously produced document, 'Views Of The Future; Kewaunee, Manitowoc And Brown Counties' which was the report from the Regional Scenario Planning Workshop conducted on 5th and 6th June, 2013. The total economic effect of the plant closure has been estimated at over \$630 million dollars to the three County Region.

The Kewaunee County and the Manitowoc County Economic Development Corporations have collaborated as project leaders on this long-term planning process. With support from Advance (Brown County), Dominion and Wisconsin Economic Development Corporation, they initiated a planning process to address the economic future of the region. While the plant closure has obvious short-term impacts, it was determined that the response from the local economic development organizations should include consideration of the longer (5-20 year) economic future of the region. For the purposes of this work, the region was defined as being the predominately rural and small community areas of Kewaunee, Manitowoc and Brown Counties.

The regional planning process was conducted between May and August 2013, and involved in total approximately 400 people from across the region, and represented a robust and comprehensive community engagement effort to gather input from local stakeholders.

This Action Plan is not intended to represent the 'total solution', but aims to identify a series of focused actions that can be achieved over the next two years. In most cases, they are intended to be catalytic, such that they provoke new ideas and actions, and begin the process of economic innovation and systemic change within the regional economic systems. Recommendations are targeted to specific local actions that can help steer the region towards the preferred future. The recommended actions have been grouped under seven key themes, which were repeatedly highlighted throughout the survey and focus group sessions. These themes are as follows:

- · Regional Leadership and Capacity Building
- Innovation and Entrepreneurial Development
- Business Expeditor Team
- World Class Tourism Potential
- Energy new industries and technology
- Agricultural Industry
- Water Resources

The Action Plan recommendations represent a total anticipated investment of approximately \$1.5M over the next two years. The projected range to fully fund the recommended actions is between \$1.1M and \$1.85M, depending on final detailed costing.



# **ACTION PLANNING PROCESS**

This Action Plan is part of a long-term regional planning project undertaken in response to the announced closure of the Kewaunee Nuclear Power Station. (For additional information, also refer to 'Views Of The Future; Kewaunee, Manitowoc And Brown Counties' which is the report from the Regional Scenario Planning Workshop conducted on June 5 and 6, 2013)

The Action Plan development has included extensive engagement with the regions key stakeholders and community groups. The key components of the planning and engagement process includes:

- Kewaunee Nuclear Power Station Closure Impact Survey May 2013 (n = 366)
- Kewaunee Power Station Scenario Planning Survey May 2013 (n=21)
- Scenario Planning workshop 5 and 6 June 2013 (n > 35)
- Regional Economic Development Action Planning Survey July 2013 (n = 60)
- Focus group meetings Kewaunee, Manitowoc and Algoma 16, 17, 18 July 2013 (n > 40)

The initial surveys, and the Scenario Planning workshop, explored where people saw opportunities for economic growth and what key drivers could be leveraged within the region. The Scenario Planning workshop, the subsequent Action Planning Survey, and the focus group sessions all collected valuable input and suggestions about key items to include in the Action Plan.

In total, more than 500 data input contacts have been made, representing approximately 400 unique individuals (some people participated in multiple surveys and workshop sessions). Each survey included multiple questions, and both qualitative and quantitative data collection. In total, this represents a comprehensive engagement process, and a robust basis for the Action Plan. The recommendations outlined in the following sections of this report, have been summarized from the dominant themes and ideas presented in the surveys, workshops and focus group sessions.



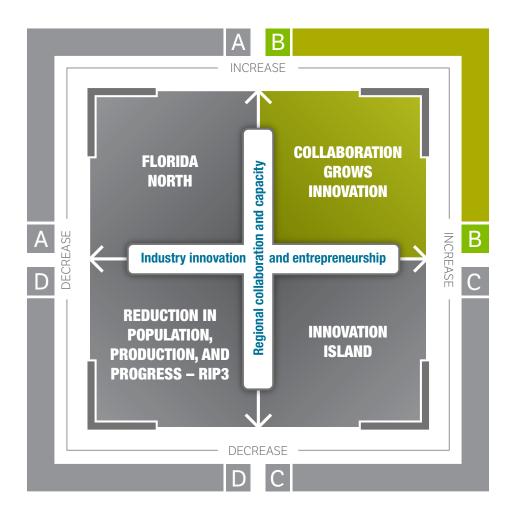
# PREFERRED FUTURE SCENARIO – A REGIONAL VISION

As outlined in the report 'Views Of The Future; Kewaunee, Manitowoc And Brown Counties' which is the report from the Regional Scenario Planning Workshop conducted on June 5 and 6, 2013, the scenario planning work identified four plausible futures for the region.

These futures were developed from four possible future scenarios. The scenario planning process identified key economic and social drivers that were likely to most impact the region. These were ranked and clustered, and used to create the conditions under which different futures could eventuate in the region. The key 'future shaping' themes most important in determining the regional future were identified as:

- Industry innovation and entrepreneurship
- Regional collaboration and capacity

The four scenario spaces were formed depending on if these 'future shaping' themes increased or decreased over time. The following diagram outlines the four scenario spaces and the names attributed to each future.



During the scenario-planning workshop, and in subsequent community and industry sessions, the unanimous view was that 'Collaboration Grows Innovation' represents the preferred regional scenario for the future. This scenario represents the basis for a shared vision for the region.

The 'Collaboration Grows Innovation' scenario was shaped by a future where regional collaboration and capacity increases over time, and where there is an increase in the level of industry innovation and entrepreneurship. This future sees a vibrant and dynamic economy, underpinned by a robust community framework. The unique natural resources are utilized in clever ways, and the region creates a unique competitive niche. The resulting vibrant local economy offers more choices for young people, and there is a greater retention and attraction of skilled local workforce and business community.

However, only 10% of workshop participants believed that the region was on track towards this preferred future scenario. The majority of people (65%) believed the region is currently heading towards a future represented by the scenario 'Innovation Island'. This has important implications on the future social, economic and environmental 'fabric' of the region.

The Action Planning process and recommendations outlined in this report aim to set the region onto a trajectory towards the preferred future 'Collaboration Grows Innovation'. Critical to this outcome will be the need to build additional strength in areas of regional collaboration and capacity, as well as industry innovation and entrepreneurship.

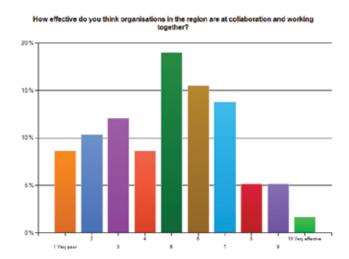
The action planning process has built on the Scenario Planning framework, developed in the June 2013 workshop. During the scenario planning workshop, and subsequent surveys and focus group sessions, stakeholders proposed actions consistent with the key axis that define the preferred scenario; namely 'Industry Innovation and Entrepreneurship' and 'Regional Collaboration and Capacity'.

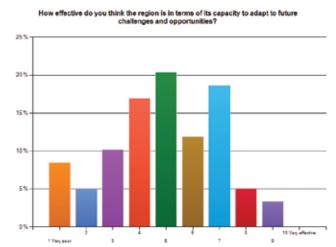
# 'FUTURE READINESS' OF THE REGION

The notion of 'Future Readiness' is important to consider in the formulation of a regional action plan. A failure in many planning processes is that they don't take into account the capacity or willingness of people and organizations to change and adapt. Lofty goals and actions can be defined, but unless there is the fundamental systemic capacity to change behaviors and resource allocations, it is probable that ambitious plans will fall short of expectations. The action planning process used in this region included survey work to explore aspects of 'Future Readiness'.

## COLLABORATION AND CAPACITY TO ADAPT

The following two charts examine responses (n=60) to key survey questions about collaboration and capacity to adapt. These results indicate that more than 50% of respondents rated the region as very poor to neutral on these two important aspects. This indicates that the action plan must include clear steps to build capacity in these areas.

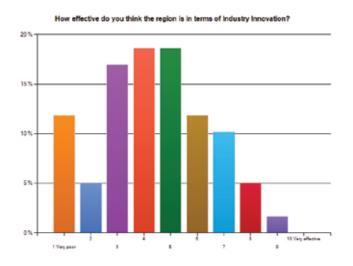


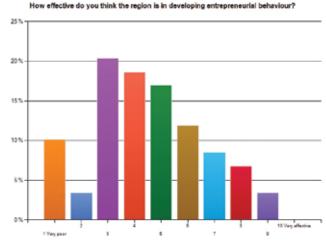


## INDUSTRY INNOVATION AND ENTREPRENEURIAL BEHAVIOR

The following two charts examine responses (n=60) to key survey questions about industry innovation and entrepreneurial behavior. These results indicate that nearly 70% of respondents rated the region as between 'very poor' and 'neutral' on these two important aspects.

Narrative comments included as part of the survey process highlighted considerable support for the Lakeshore Industry Cluster initiative. This initiative is making a significant early contribution to building knowledge and focus around key areas of industry innovation. The Cluster initiative, and other approaches proposed in the following action plan will be an important step to build the culture and capacity in industry innovation and entrepreneurial behavior.



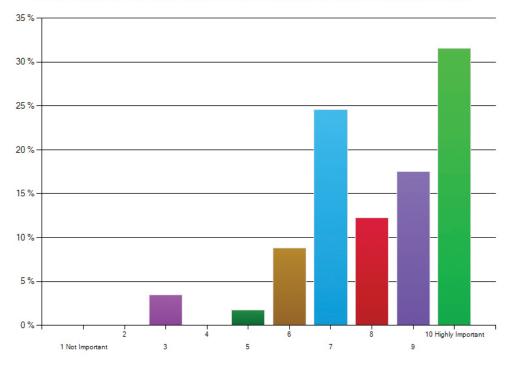


## IMPORTANCE OF REGIONAL ACTION PLAN

The following chart examines the responses (n=60) regarding the importance of having a regional economic development action plan. This shows a high level of support and recognition of the importance of having a cohesive regional action plan. This result supports findings in previous survey questions regarding the importance of having a shared regional vision (conducted as part of the Scenario Planning workshop).

This result should give encouragement to local leaders and organizations that there is an underlying understanding and support for a regional approach.





# **ACTION PLAN — RECOMMENDATIONS**

The recommendations outlined in this Action Plan have been drawn directly from the planning and engagement process. In reviewing these recommended actions, it should be noted that the recommendations outlined are intended to complement existing activities and actions in the region. It is recognized that a significant amount of high quality work is already taking place within the region, including some recent innovations. The recommendations are not intended to duplicate any existing efforts or projects. For example, the Lakeshore Industry Cluster work is regarded as already having a significant impact on the levels of industry innovation in the region, and recommendations outlined in this report aim to complement existing Cluster work, and help give guidance for additional areas of future work for the Cluster groups.

Some examples of Lakeshore Industry Cluster work already supporting actions enabling the preferred scenario future include:

- Bio-gas potential and research
- Tourism and potential to leverage from Door Country market
- Manufacturing and potential to expand into new manufacturing sectors
- Expansion of renewable energy industries

In addition, it is recognized that some significant regional efforts are already underway within Northeast Wisconsin. There are high quality research and development resources within these efforts, and within the various State agencies that can assist in executing recommendation. Recommendations are targeted to specific local actions that can help steer the region towards the preferred future.

The recommendations outlined are not intended to solve 'all the problems of the world'. Rather, they are a series of focused actions that can be achieved in the short to medium term. In most cases, they are intended to be catalytic such that they provoke new ideas and actions, and begin the process of economic innovation and systemic change within the regional systems.

The recommended actions have been grouped under seven key themes, which were repeatedly highlighted throughout the survey and focus group sessions. These themes are as follows:

- · Regional Leadership and Capacity Building
- Innovation and Entrepreneurial Development
- Business Expeditor Team
- World Class Tourism Potential
- Energy new industries and technology
- Agricultural Industry
- Water Resources



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## **OPPORTUNITY**

The region has an existing depth and strength in industry and community leadership. This is reflected in experienced industry leadership and management, and the depth of talent in various organizations such as the Economic Development Corporations, Chambers, Visitor and Convention Bureaus and various elected bodies. However, there is further opportunity to strengthen the regional capacity for change. Reasons to invest in building such capacity includes:

- The scenario analysis has indicated that building strong regional leadership capacity will be pivotal in building the preferred future.
- Having strong, adaptable and responsive leadership ability could become a significant competitive advantage for the region, where opportunities can be identified and acted on quickly and effectively.
- Many of the opportunities before the region will require application of modern leadership
  principles and practices that revolve around collaborative partnerships, future thinking
  and long term planning.

The scale and rate of change before the region suggests that further development of leadership skills and the building of a culture of calculated risk-taking and innovation is essential.

## **CHALLENGES**

Throughout the planning process, regional leadership and capacity for change were repeatedly cited as key issues for the future. There is need to develop a strong 'pipeline' of new leaders entering civic leadership roles who are well equipped and informed on emerging global and regional trends. A key challenge for the future will be to build a culture that tolerates some level of entrepreneurial risk, and that avoids a complacent 'do-nothing' attitude. Increasingly the future success of regions will be dependent on local leaders capacity and willingness to be proactive and mobilized in collective actions. The survey results indicate the perception that there is an existing weakness in the ability to respond to change and collaborate. Overcoming traditional boundaries and 'silo mentality' represents an important challenge for the cadre of regional leaders.



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# **BUILDING STRONG LOCAL LEADERSHIP AND CAPACITY FOR CHANGE**

Action - Host a regional 'future orientated' convention or conference, to engage leaders with the regional Action Plan, and the work of the Industry Clusters. This will help strengthen:

- Internal regional communication by bringing together key organizations and leaders around important issues.
- Awareness of the need for region-wide collaboration and partnerships.
- Build the sense of urgency about the future, and the need to act quickly to secure opportunities, and avoid threats.

Action - Initiate a 'Lakeshore Advanced Leadership Program' for interested existing and emerging leaders within the region. Such a program should be practical, easily accessible and offer a rewarding experience. Key topics of such a program should include:

- Adapting to change; learning how to collaborate and create consortiums within the region.
- Economic development leadership how to build successful partnerships, collaborations and consortiums.
- Leadership in a rapidly changing world how to anticipate future trends and build rapid responses.

Action - Initiate a program for elected City and County elected officials to build deep understanding of the regional economic development system:

 Map existing influential networks within the region and identify key people, networks and resources around topics such as economic development, innovation and civic leadership.









- Sponsor local people on study tours to explore best practice in industry innovation and regional collaboration.
- Host a local seminar series examining future trends shaping industry and society with noted futurists and topic experts.
- Connect with the Leadership Wisconsin to facilitate more local participants.



## KEY PARTNERS

- Leadership Wisconsin , WEDA, WEDC and other regional leadership programs
- County and City elected officials and staff
- Local Economic Development Corporations and Lakeshore Industry Clusters
- Potential leadership funding sources (agencies/foundations) at a State and National level.



# BIG-TICKET RESOURCES NEEDED

- Hosting a regional conference to support the roll-out of the regional action plan and work of Industry Clusters would take 6 months and cost approximately \$25K.
- Implementing a 'Lakeshore Advanced Leadership Institute' would take 12-24 months, and cost approximately \$60K, based on approximately 30-50 participants.
- Hosting a series of seminars exploring important future trends would take 6-12 months and cost approximately \$35-40K for 4 seminar sessions with notable experts.
- Mapping regional networks would take 3-6 months and require \$30-50K, including designing leadership network development.
- Host Study Tours to explore best practice in partnership building and collaborative action planning. Assuming 1-2 study tours at \$10-15K per study tour.

## ACTION PLAN RECOMMENDATIONS — INNOVATION AND ENTREPRENEURIAL DEVELOPMENT



## **OPPORTUNITY**

Industry Innovation and Entrepreneurship has been identified as a key future-shaping theme throughout the planning process. The region is blessed with high quality abundant natural resources and a strong business base, along with the potential to develop a world-class entrepreneurial development system that spurs new business venture and economic diversification and innovation.

There is enormous potential to leverage the work currently being undertaken by the Lakeshore Industry Clusters. The region has many components that could be connected together to build a strong entrepreneurial development system. Some existing strengths that could be harnessed include:

- Lakeshore Industry Cluster network and their current research and exploration.
- Strong industry and manufacturing base with international exposure and connections.
- Experienced local business community and skilled workforce.
- Strong Local Economic Development Corporations and staff.

These strengths offer an ideal springboard to build interest and momentum around innovation.

## **CHALLENGES**

The surveys and focus group planning sessions have identified a perception of a regional weakness in the attributes of innovation and entrepreneurial development. However, there is a strong recognition of the importance of these themes, and a strong desire to build a more innovative and entrepreneurial culture. The key challenge will be to align the existing efforts in the region into a cohesive system where innovation can occur quickly and new ideas are supported and flourish. This will require building a system from youth, right through to mature large business sectors. By its nature, this type of work requires time and perseverance to achieve real results.



# CREATING A CULTURE OF INNOVATION AND ENTREPRENEURIAL DEVELOPMENT

#### Action - Leverage the momentum of the Lakeshore Industry Clusters:

- Package resources to support the strategies and actions already identified, and to support key studies to further pursue promising opportunities.
- Engage potential entrepreneurs in capitalizing on the economic and industry development opportunities being identified by the Industry Cluster groups.
- Examine the potential for 'innovation training' (institute type models) on how to build a culture and capacity of innovation.

# Action - Host targeted study tours to explore best practice in terms of promising areas of innovation:

- Study tours have proved to be highly effective at spurring innovative action, and allowing people to study first hand how innovative industries and sectors can be developed.
- The focus should be placed on the potential of more intensive agriculture, specialized manufacturing, destination tourism, and leveraging biogas and renewable energy sources. Such tours should aim to bring world best practice knowledge back to the region.

# Action - Design an overall regional entrepreneurial development program. Such a program should include:

- Connect the entrepreneurial development systems from promising seniors from high schools and technical colleges through to mature businesses looking to innovate or expand.
- Enhance the capacity for local 'economic gardening' by using market research to identify potential for expansion in business and sectors.

# Action - Research the viability of developing investment pools from local banks and agencies:

- Expand the capacity for more 'risk lending', allowing access to capital that tolerates a higher risk.
- Encourage a local Angel Investor Network to support and mentor entrepreneurial endeavors.









- Explore Innovation Masters Courses with Business Innovation Centers and connection
- Start a virtual incubator, providing a way for people to share ideas and services, and thereby promoting services locally.
- Start an entrepreneurial 'Accelerate' program, helping to create a more coordinated and supportive environment.
- Enhance the local Internet infrastructure to provide high-speed access to greater areas of the region.



# KEY PARTNERS

innovation workshops.

- Lakeshore Industry Cluster groups and Economic Development Corporations have a key role in identifying areas of potential innovation and new business potential.
- Business Innovation Center can provide valuable access to innovation training programs
- Angel Investor network and local Banks can play a key role in funding and mentoring entrepreneurial ventures.
- Educational partners, including Technical Colleges, UW-Extension and Secondary Schools.



# **BIG-TICKET RESOURCES NEEDED**

- Supporting additional work of the Industry Clusters, especially for further feasibility studies, would cost from \$150-200K over a 24-month period. This cost estimate will be refined after receiving cluster resource request estimates, which are currently being developed.
- Assuming three dedicated study tours with 10-15 people per tour. This would take 6-12 months to organize and cost \$50-65K, assuming participants cover some costs. Tour destinations are to include locations such as Netherlands to examine bio-gas and agriculture.
- Link existing entrepreneurial development programming across the region into a comprehensive Regional Entrepreneurial Development support system. This would take 12-24 months and cost \$50K per year to support convening, planning and initial programs.
- Local investment pools could be developed on a self-funding basis, but initial research and coalition building would take 6-12 months and cost approximately \$20-30K.



## **OPPORTUNITY**

As the US manufacturing and consumer economy begins to recover, there will be emerging economic opportunities. This macro trend, together with the work of the Industry Clusters is beginning to identify and create a range of new business potential for the region. One key factor that could stifle the uptake of ideas and opportunities will be the lack of necessary skills and personnel locally who can help identify opportunities and connect the right people.

In an increasingly competitive regional economic development environment, having some dedicated resources and personnel to operate as a Business Expeditor Team could prove very advantageous. Working with Industry Clusters, such a team could help conduct deeper supply chain analysis to identify new and emerging areas of industry and business for the region.

## **CHALLENGES**

During the planning process, the local quality of life was identified as a key economic driver. The challenge is to help local existing businesses, which may have reached maturity, find new ways to expand and remain local, either through acquisition or diversification. Alternatively, it also offers the opportunity to attract new businesses to the region, which may be attracted by local advantages such as lifestyle amenities and regional location. The challenge is to create the 'business-matching' process, which will require a detailed working knowledge of local opportunities and find suitable matching partners.



# **ESTABLISH A BUSINESS EXPEDITOR TEAM**

Action - Form a region-wide Expeditor Team (connected to the County Economic Development Corporations). Such a team would have a key role to:

- Connect existing local businesses with outside acquisition (and relocation) opportunities.
- Recruit suitable outside businesses to take up opportunities being identified by Industry Cluster work.
- 'Fast Track' research on business opportunity identification.
- Explore possible succession plans for 'baby-boomer' owned local businesses that might otherwise close down.
- Leverage the Business Retention and Expansion (BR&E) programs and create more usage locally.

Such a Business Expeditor Team would also play a role in creating a 'can-do' culture and reducing the 'fear of failure' culture, by being advocates for the region and by spurring innovative business thinking.





- Help businesses expand through pooling purchasing power to improve purchasing capability (in areas such as freighting, pooled purchasing, transport logistics).
- Conduct deeper value chain analysis of existing sectors to identify opportunities for new or relocated businesses within the region.



# KEY PARTNERS

- Local Economic Development Corporations have a key role to identify local businesses that are ready to expand and diversity.
- Wisconsin Economic Development Corporation can provide key data on emerging business opportunities and trends.
- New North has access to key information and a large network of business links.



# BIG-TICKET RESOURCES NEEDED

• Establishing a Business Expeditor Team would take 6-12 months to establish and cost approximately \$100K per year to operate.





The region has the potential to become a vibrant and authentic tourism destination in its own right. This could represent a significant addition to the local economy, in terms of new businesses, revenue, jobs, and entrepreneurial opportunities. Some of the existing strong regional tourism attributes include:

- High visual appeal factor with beautiful 'coastline', scenic rural landscapes and idyllic water-front communities, together with some established trails and recreation opportunities.
- Emerging wine industry, and the potential for a hops industry, which could form the basis of a wine and craft beer destination experience.
- An established food industry based around dairy and meats, which could be expanded and linked to create a food destination with a broad culinary experience.
- · Well-known fishing destination, with great local ports and access areas.
- Close proximity to major urban centres of Chicago and Milwaukee, and on the 'throughroad' to Door County.

Tourism development offers the opportunity to build on the region's quality of life, to help draw new visitors, and to retain local residents.

## **CHALLENGES**

Tourism is seen as a high priority economic development opportunity within the region, offering the promise of significant economic growth in the next 3-5 years. People have likened the region to 'Cape Cod', in terms of scenic appeal and relative location to major metropolitan areas. There have already been some promising regional efforts to better brand the region, for example the Schooner Coast initiative. To further capitalize on the potential for tourism, regional stakeholders need to come together to design and implement a coordinated and cohesive marketing strategy. This can often be a challenge in rural and regional settings, but the process of creating a shared vision for the region's tourism industry could be enormously unifying. There is an opportunity for the region to move from being a 'pass-through to Door County', to being a viable and exciting destination in its own right. To achieve the region's full tourism potential, it will require building the 'critical mass' of destination experiences, and appropriate lodging and accommodation infrastructure.



# 1

# **CREATING A DESTINATION BASED TOURISM INDUSTRY**

Action - Form a regional tourism consortium of all key tourism entities, with an initial role to:

- Create a shared tourism vision and destination development plan for the region.
- Build the important linkages to Door County and other local tourism destinations.
- Explore the regional potential and interest for creative new tourism opportunities, such as culinary tourism, eco-recreation, and nature-based tourism.

#### Action - Expand the regional tourism product offering:

- Assess the existing product inventory, and undertake a destination development program based on a 'Lakeshore Rural Tourism Studio', which builds cohesion and collaboration across industry sectors and organisations, and develops new tourism product.
- Develop the concept of the region as a culinary hub, incorporating aspects such as food, cheese, craft beer, wine, fishing and lakeshore amenities.
- Explore the feasibility of further developing eco and nature-based tourism, and linking the regional trail systems around the existing Anhapee Trail.
- Assess the potential for expanding and upgrading hotel and recreation focussed lodging, as well as appropriative resort development in the region.

#### Action - Brand and market the region:

• Develop and implement a collaborative and consolidated regional tourism-marketing plan.









- Hold a once a year HUGE farmers market; creating a regional destination event, based around a 'Lakeshore Wine, Beer and Food Festival'.
- Leverage off the existing supper club culture, and link to a 'seafood coast' concept.
- Exploit the potential for more harbor-front experiences, like those which can be found on the New England coastline.
- Launch an integrated regional program of events and activities, which draws people to the region, and then moves visitors throughout the region.
- Use 'Buy local' initiatives to connect the local food economy, and help stimulate more unique gourmet food small businesses.



# **KEY PARTNERS**

- The Lakeshore Tourism Cluster is integral to the tourism action area.
- Visitor and Convention Bureaus, County Economic Development Corporations, and the local Chambers of Commerce, have a key role to link businesses and organizations together across the region.
- Wisconsin Agriculture Education Center can help brand the region, and assist the integration of food and agriculture into the tourism product.
- The Farm Market Kitchen offers a valuable resource for entrepreneurial new food and culinary-based businesses.
- Department of Natural Resources; Wisconsin Department of Tourism



# **BIG-TICKET RESOURCES NEEDED**

- Comprehensive regional tourism planning and partnership building program will take 6-12 months, and cost \$50-100K
- Implementing a 'Lakeshore Rural Tourism Studio' incorporating destination development planning modules would take 6-12 months, and cost approximately \$50-75K
- Initiating a comprehensive research and destination development program would require 12 24 month, and require \$150-250K, including 'seed funding' for marketing and new enterprise initiatives.



The Energy Industry Cluster has been examining in detail future energy potentials for the region. The major focus of this work to date has been the development of a Compressed Natural Gas (CNG) or biogas industry, based on digesters using animal manure as a by-product of the dairy industry. This is fundamentally being driven by a need to find a sustainable solution to process such by-products.

This need creates an opportunity, which is the likelihood of abundant local energy in the form of CNG. There is potential to leverage this opportunity, and create the region as a significant renewable energy hub, which would be consistent with current policy settings and environmental considerations. In addition, there is potential for further renewable energy developments based on wind, water and biomass. An abundant source of cheap local energy presents the opportunity for spin-off industries that can use this energy as a competitive advantage.

## **CHALLENGES**

While promising, this CNG industry will require significant infrastructure investment and fleet conversions to become economically feasible and practical, especially given the low cost of other natural gas sources. Despite these potential constraints, the outlook is promising, and it would appear that there are a number of compelling reasons for progress in this industry. The challenge will be to find the way to maximise the local economic impact and find synergistic ways to use this energy to spur new and innovative developments such as intensive agriculture, aquaculture, biomaterials and manufacturing.



# **EXPANDING ENERGY BASED INDUSTRIES AND TECHNOLOGY**

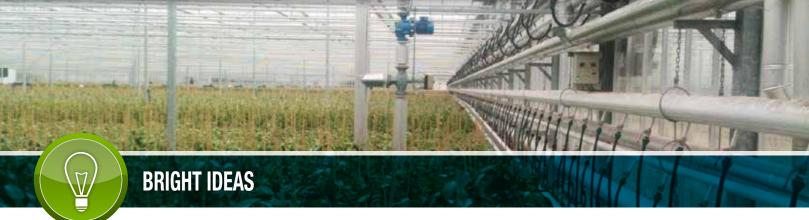
### Action - Explore the full potential of the CNG industry:

- Work with Energy Cluster to begin to understand the full scope of 'spin-off' business potential from CNG, both as potential energy users and as supplier businesses that support the CNG energy sector.
- Convene a team of experts in the field, and bring them to the region. Explore the potential in having a local CNG energy source, and how this could be leveraged in a synergistic manner with the established agricultural and manufacturing industries.
- Support Energy Cluster in their efforts to engage County and City Governments, in part to add fleets as consumers, and to support the development of an integrated CNG industry.
- Connect to the Bio-energy cluster (the New North) with local clusters.

# Action - Explore the potential of the alternate renewable energy sources and associated industries:

- Connect with UW Stevens Point specialist team in bio-plastics, and send a local delegation to attend the October 22 think tank on alternative energy.
- Examine the potential local alternatives to traditional fossil fuel based energy (such as coal) in energy co-generation processes, such as woody biomass digestion.
- Explore potential for renewable energy using water resources, including offshore windfarms and tidal power generation.





- Explore medium-term feasibility of new alternate industries, based on proteins and bioplastics, made out of biomass byproducts of CNG and agricultural industries.
- Conduct research into long term potential for renewable energy sources and industries in the region, including tidal and offshore wind farms.



# KEY PARTNERS

- New North Bio-Energy Cluster
- Lakeshore Industry Clusters Energy and Agriculture
- University of Wisconsin Stevens Point offers expertise in new innovations such as bio-plastics and renewable energy sources.
- Wisconsin State Energy Office and Wisconsin Clean Cities



# **BIG-TICKET RESOURCES NEEDED**

- Support to develop the CNG industry over the medium term, and will require over \$100-200K to facilitate development of the industry and provide some seed capital for pilot projects.
- Exploring the potential for alternate renewable energies and alternate uses of biomass would take 6-12 months and cost \$50-100K.

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The agricultural industry within the region is an important pillar to the economy, and while it is dominated by dairy, there is some diversification. The dairy industry is robust, has competitive scale and is technologically advanced. While not without challenges, it is expected that dairy will continue as a major economic driver. Global trends in terms of population, food consumption patterns and climate trends suggest that agriculture in the Midwest USA will be favoured, especially due to high production capacity, stable production systems, and access to abundant resources of fresh water and biomass.

There appears to some spin-off associated economic opportunities in the fields of agriculture and agricultural technology. Some of the these opportunities potentially include:

- Biogas technology and by-product solutions. Assuming the dairy industry is able to develop an effective manure by-product system and industry, this could have technological application in many intensive agricultural regions of the world. This opportunity includes new innovations such as pelletizing manure by-products to create nitrogen-based fertilizers.
- Clean-tech industries based on the local experience of the Fox River cleanup and ground
  water remediation. This experience and expertise could offer a model for environmental clean up
  and groundwater management businesses in other locations around the world. Ground water
  management and nutrient management are becoming increasingly important in many locations.

These potentials are complemented by numerous potential diversification options. High intensity and high value crops such as grapes (vineyards), hops, fruits and some small grains all show promise. These crops offer the potential to add to the regional agricultural value, and enhance associated industries such as tourism. In addition, the region has the capacity to support food production innovation with facilities like the Farm Market Kitchen in Algoma.

## **CHALLENGES**

While there appears to be many opportunities, many are unproven and require commercial validation. In addition, a number of these opportunities require critical scale and significant investment. The primary challenge will be to gather sufficient industry interest and support to explore new alternatives, which are seen as realistically building on the existing industry base. This will require some willingness to explore promising new ideas and concepts.



# RESEARCH AND DEVELOP AGRICULTURAL INDUSTRIES

#### Action - Explore the spin-off potentials of bio-digesters technology and CNG industry:

- Agricultural Cluster to further examine new approaches of producing fertilizer pellets out of digester by-products and biomass, for use in traditional and alternate agricultural and horticulture industries.
- Agriculture and Energy Clusters to collaborate to explore the potential in new intensive horticulture and agriculture industries, leveraging local energy sources as a by-product of emerging biomass energy industry.
- Conduct research and feasibility studies on potential for new local intensive agriculture (using energy/ heat) such as aquaculture/hydroponics and greenhouses.
- Examine the potential for 'closed-loop' systems and the resulting potential for diversification on dairy farms.

#### Action - Explore potential for environmental services industry:

• Conduct feasibility research on the potential for 'clean environmental' services building from the remediation and management experience and expertise in the region.



#### Action - Research potential for diversification within the agricultural sector:

- Support the Agriculture Cluster efforts to examine the medium to long term potential for hops, vineyards, small grains and fruits, in collaboration with the UW Extension service.
- Connect the UW Extension to farm and industry groups to explore existing research and information available.



#### Action - Support the further development of a local food industry:

- Examine potential that food science training be added to technical colleges to support some of the emerging food sector, building off 'Master Cheese Makers' model and culture.
- Connect the Agriculture and Tourism Clusters to explore the interest and potential for local foods to enhance the regional tourism product offering.



- Build a regional system to connect existing R&D resources into innovative attempts at new crop types and food production ideas.
- Create connections between chefs and food producers, to find innovative ways to create local food systems and new business opportunities.



# KEY PARTNERS

- Agriculture, Energy and Tourism Clusters have overlapping areas of expertise and interest to drive innovation and diversification in the agricultural sector.
- **UW Extension** has considerable expertise and research resources to help develop and validate new opportunities and crops.
- Technical Colleges and Farm Market Kitchen offers valuable resources for helping foster local food systems and connecting food entrepreneurs to the tourism sector.



# **BIG-TICKET RESOURCES NEEDED**

- Examining future potential for agricultural diversification and intensification would take 6-24 months and cost \$100-200K for preliminary studies and research.
- Supporting the development of a local food system, and local foods would take 12-24 months and cost \$20-50K.





The region is blessed with an abundance of fresh water resources. Forecasts for global trends strongly suggest that availability of fresh water is going to be key future stress point. In an increasingly populated and hotter world, fresh water supplies will be coveted and valuable. The region is fortunate to have abundant fresh water and also highly fertile land and important waterway ports and shoreline access. This may produce some enhanced competitive advantages, especially in water dependent agricultural and manufacturing industries.

In considering the topic of water resources, the following dimensions are worth considering:

- The high recreation and quality of life aspects of the regions water resources (lake and rivers).
- Potential for selective property and tourist resort development connected to 'waterfront' locations.
- Current and future potential for water usage in high value agricultural, food production and selective manufacturing industries.
- The transport access offered by waterways and Ports in the region contributes to the economic impact in local communities.
- Counties have committees and groups dedicated to developing the working harbors for tourism. Kewaunee County has 2 working groups, and Manitowoc has a river and harbour front recreation group, which is working to make it a stronger working harbour and tourism destination.

## **CHALLENGES**

Despite the global indications of the future potential value in water resources, this factor was not well recognised by the regional population in the planning process. In many cases, it seemed to be a matter taken for granted. However, an objective assessment would suggest that the future value and utility of the water resources is well worth considering. There is some recognition of possible future challenges in water resource management, including lower lake water levels becoming increasingly important for port communities. Dredging of Ports is critical to maintain and increase Port capacity. The issue of ground water pollution from agricultural effluent is recognized and being addressed.



# **OPTIMIZE USE OF WATER RESOURCES**

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## Action - Develop and expand the shipping and transport capacity of waterways and lake:

- Currently, Federal laws inhibit some Great Lakes shipping options. There is need for policy action to remove multiple Port taxes, especially for manufacturing.
- Connect with Port Association and invite Port of Green Bay and Port of Manitowoc to discuss the issue and possible collaborative regional action.
- The regional Ports are mostly import focused, with less export activity. Examine potential
  new export markets that can use the Ports to create a competitive freight advantage,
  and connect to intermodal hubs.

## Action - Explore the potential 'future value' of water in the region:

• Connect the Lakeshore Industry Cluster Groups to Milwaukee Water Technology Council to explore future potential use of water in the region.

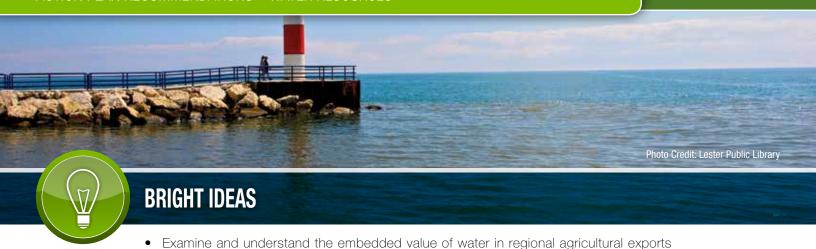
### Action - Develop a comprehensive regional port development strategy:

- For the recreational harbors in the region, dredging and maintaining open port access is a major issue. Develop a region-wide integrated Port development plan and explore overlaps and synergies between existing community port facilities.
- Advocate for maintaining priority Port access and facilities.

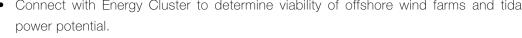








and explore future competitive advantages.Connect with Energy Cluster to determine viability of offshore wind farms and tidal





# KEY PARTNERS

- Port Association, Port of Green Bay and Port of Manitowoc can collaborate on regional policy actions.
- Lakeshore Industry Cluster Groups and Milwaukee Water Technology Council offer insight and expertise to explore future water potential in the region.
- Local Economic Development Corporations and community-based Port Authorities
  can collaborate to develop a regional port strategy.
- County Land and Water Conservation groups have a key role in managing and protecting water resources.
- Department of Natural Resources



# **BIG-TICKET RESOURCES NEEDED**

- Initiate a study of additional export potential, based on using the regions water based transport corridors. This would take 6-12 months and cost approximately \$20-30K.
- Developing an integrated regional Port strategy would take 6-12 months and cost \$30-50K.

# **NEXT STEPS**

The planning process has highlighted people's recognition of the region's abundance of high quality natural resources including fresh water, prime agricultural land and associated industries. In addition, the region has a robust manufacturing base, and advanced agricultural industry. The action planning work has highlighted a number of very promising opportunities, and related action steps. These actions aim to build innovation and economic strength, and to enhance collaboration and capacity within the region.

As stated in the scenario planning workshop report, the challenge for the future will be to optimize the use of these resources while retaining the intrinsic beauty of the region, which is an important factor to the tourism potential. Continuing to build regional collaboration and capacity will be vital. This will include the ability to embrace the regional vision, and a willingness to reach across traditional barriers and territorial lines to form new partnerships, share resources and build critical industry scale.

The next steps will be to:

- Attract the resources to fund the recommended action steps.
- Work with local organizations to understand and embrace the action plan.
- Recruit the people and organizations to take lead responsibilities for key actions.

It is recommended that the two main host organizations (Kewaunee County Economic Development and Economic Development Corporation of Manitowoc County) continue to take the leadership role to implement and retain oversight of the Regional Action Plan.



# **ACKNOWLEDGMENTS**

Throughout the planning process, many hundreds of people from across the region gave generously of their time and expertise. We acknowledge their desire to see a better future for the region.

Jennifer Brown (Kewaunee County Economic Development) and Connie Loden (Economic Development Corporation of Manitowoc County) provided the drive, vision and leadership to initiate and manage this planning process. They were ably supported by their respective Boards and staff, and were assisted by the Kewaunee Power Station Regional Economic Strategy Team.

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# FOR MORE INFORMATION

For more information on this report and the regional action planning process, please contact:

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