

Target Industries Report

SUBMITTED TO:

Legislative Council Economic Development Committee
State Capitol
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Section 40 of Senate Bill 2018 added a new section to chapter 54-60 of the North Dakota Century Code as follows:

54-60-11. Target industries - Report to legislative council. The commissioner shall identify target industries on which the commissioner shall focus economic development efforts. The commissioner shall designate one of these target industries as a special focus target industry. In identifying and updating target industries, the commissioner shall solicit the advice of the foundation and the North Dakota university system. The commissioner may contract for the services of a third party in identifying target industries. The commissioner shall report biennially to the legislative council. This report must include information regarding the process used and factors considered in identifying and updating the target industries, the specific tactics the department has used to specifically address the needs of the target industries, the unique tactics and the specific incentives the department has used to support the growth of the special focus target industry, and any recommended legislative changes necessary to better focus economic development services on these industries.

Background

The five target industries were formalized and adopted by Gov. John Hoeven and the North Dakota Economic Development Foundation as part of the state's strategic plan for economic development. The target industries are energy, value-added agriculture, technology-based businesses, advanced manufacturing and tourism.

The Department of Commerce uses these five target industries to drive and focus the agency's work.

Process Used and Factors Considered in Identifying and Updating the Target Industries

The Department of Commerce has decided to not make any changes to the current five target industries, at this time. Instead, Commerce has sought to narrow the focus within these target industries on areas with the most opportunities for long-term growth. In narrowing the focus, Commerce may consider industry specific factors, such as natural resources available for Energy and Value-Added Agriculture, or general factors such as how global competition will affect the economy.

Commerce has chosen Energy as the special focus target industry. Energy was chosen because of its increasingly important role in North Dakota's economy. Petroleum production has been rising in Western North Dakota and renewable energy projects are taking off across the state. Renewable fuels, such as ethanol and biodiesel, are not only important Energy sources, but are also a form of Value-Added Agriculture.

Specific Tactics Used in Addressing Needs of Target Industries

The Department of Commerce continually analyzes the target industries to keep abreast of the dynamics at play in each industry and to identify opportunities and tactics for growth.

This report highlights some of the key factors at play in each of these industries, and outlines some recommendations for policy changes that might better position North Dakota to grow new jobs and businesses in these five target industries.

Energy and Value-Added Agriculture:

Energy and value-added agriculture offer some of the greatest growth opportunities for North Dakota. Agriculture is North Dakota's number one industry, generating \$3 billion in economic activity per year and making up nearly 40 percent of our economic base. Energy is the state's third largest industry, generating \$2 billion of economic activity annually and making up 14 percent of North Dakota's economic base.

Over the past several Legislative Sessions, the Governor and the Legislature have implemented a comprehensive package of state incentives to stimulate growth in renewable energy and to create a broad-based energy strategy that maximizes all of North Dakota's energy resources, specifically:

- North Dakota's agriculture resources, including the 13 crops the state leads the nation in producing.
- Fossil fuels
- Wind
- North Dakota's research institutions

The incentives the state has created as part of this energy strategy are working. Since 2005, more than \$1 BILLION in new renewable energy projects have been launched in the state. These projects have the capacity to produce 325 million gallons of ethanol, 85 million gallons of biodiesel, and 300 megawatts of wind power.

Three recent project announcements illustrate how some of the incentives are working:

Hankinson:

The 100 million gallon US BioEnergy ethanol plant being constructed near Hankinson can take advantage of:

- A 30 percent state investment tax credit for investors.
- Exemption on state sales tax for new equipment and construction materials.
- The state Ethanol Production Incentive program, which provides a safety net for ethanol producers.
- The Development Fund, New Venture Fund, and Agricultural Products Utilization Commission, as well as BND's MATCH and PACE programs.
- North Dakota DOT assisted with transportation planning and road improvements.

Spiritwood:

In May, the Commerce Department participated in launching the Spiritwood Industrial Park, a new \$350 million industrial complex in Jamestown. The park will include a 100 million gallon ethanol plant; an expanded Cargill malt processing plant; and a 40 megawatt coal-fired steam generating plant using the latest technology to power the entire enterprise. On this project, the state is providing financing support, including:

- Assistance from the Bank of North Dakota
- An Agricultural Commodity Processing Facility Investment Tax Credit.
- North Dakota DOT is assisting with road upgrades and access.

Velva:

The Archer Daniels Midland 85 million gallon biodiesel plant in Velva has access to a number of incentives, including:

- A \$400,000 Biodiesel PACE program, which will provide up to \$650,000 in interest buy-down for a biodiesel plant, when combined with \$250,000 in regular PACE.
- A sales tax exemption on all new processing equipment.
- An income tax credit for any fuel supplier that blends biodiesel fuel to the ratio of 5 percent, or B5. The credit equals five cents per gallon of fuel blended.
- A tax credit equal to 10 percent per year for five years of the seller's direct costs incurred to adapt or add equipment to their facilities to enable them to sell the biodiesel blend.
- An Agricultural Commodity Processing Facility Investment Tax Credit equal to 30 percent of the investment, up to a maximum of \$50,000.

Wind Related Pre-Development Support

Other front-end support the Department of Commerce provides to address needs in the energy industry includes:

- Grants to conduct wind resource studies. (18 entities around the state at 19 or 20 sites, total grant amount is \$178,190 to date.)
- Wind feasibility studies (5 campuses @ \$44,000 and a study for a group of churches @ \$4,000.)
- Facilitated a utility-funded wind resource study involving at least 8 sites (\$25,000 grant).
- Anemometer Loan Program that has assisted approximately 25 sites, both private and public, with short-term (one year) wind resource studies.
- The first wind farm development in the state – Edgeley/Kulm – has always credited the Commerce grant-assisted study with providing the information that made that project happen.

In addition to these and other projects underway, several projects are in the exploratory stage including the \$750 million coal-to-liquid project. The Department of Defense is also exploring the use of North Dakota lignite in a coal-to-liquid plant that will produce jet fuels for the military. According to the Air Force, North Dakota has coal reserves that could produce as much as 20 billion barrels of liquid fuel. At one North Dakota power plant site, which has been in operation for 20 years, there is enough easily mined coal to power two 600 megawatt plants as well as a 30,000 bbl/a day coal-to-liquid facility for more than 100 years.

Additionally, North Dakota research institutions are conducting world class research on hydrogen technology, CO2 sequestration, biomass, alternative fuels, wind energy and clean coal technology and is home to the nation's only Center for Hydrogen Technology. The Centers of Excellence program is helping to further advance these research and development efforts. Four out of 11 funded Centers of Excellence projects are focused on the energy industry. These include the Bismarck State College – National Energy Center of Excellence, UND Energy and Environmental Research

Center – National Center for Hydrogen Technology, North Dakota State University – Ag Biotechnology: Oilseed Development, and Williston State College - Petroleum Safety and Technology Center.

With the growth in renewable energy, progressive lignite coal development and the oil exploration activity occurring in the west, North Dakota's energy industry is seeing vigorous growth.

The Department of Commerce has conducted several studies this biennium relating to the energy industry. These include:

1. The Coal Country Development Initiative. This study was conducted by Trillium Planning & Development and Yale University Industrial Environmental Management Program. This report was also provided to the interim Agriculture and Natural Resources Committee for their study on energy-intensive economic development.
2. Power Plant Site Evaluation to determine the development potential surrounding our state's existing power plants.

Key findings of the Power Plant Site Evaluation are that:

1. Newer plants have more potential to support additional industrial development – they are cleaner, have more modern equipment, and tend to produce more by-products that could be used for industrial development.
2. Most facilities have very good existing water capacity – so water is not a constraint for further development in and around North Dakota's power plants.
3. Biggest constraint: emissions and permitting. There aren't many SO₂ allowances available, which is controlled by the federal government.
4. Information regarding excess steam capacity is not publicly available so wasn't included in this study. This is a key component for industrial development. For example, Blue Flint ethanol is being fueled by excess steam at Great River Energy.
5. Greatest by-product opportunity: flex crete. Need a larger demonstration project for testing.
6. Least potential by-product: Gypsum. North Dakota doesn't produce enough.

With energy development, by-products are an area that offers tremendous potential for economic growth. And this is an area where the Legislature can focus attention.

As a by-product of production, the ethanol industry will be generating a lot of CO₂, dry distillers' grain and wet distillers' grain. North Dakota should work to develop a local market for these by-products. The distillers' grain will be available to help feed what could be a very significant livestock industry in the state. Incentives for development of concentrated livestock feeding operations could provide a significant boost to jump-start this industry.

Tourism

Tourism is North Dakota's second largest industry. It now accounts for over \$3 billion in economic activity each year, and is the state's fastest growing industry.

One value in growing tourism is that this industry has the potential to touch every corner of the state – rural and urban, north and south, east and west.

For the last four years, the Department of Commerce Tourism Division has implemented a research-driven approach to marketing and advertising. This research-driven approach began with the legendary brand, which was specifically designed to tap into those attributes potential visitors find most appealing about North Dakota.

Research drives a vast majority of the marketing decisions including the images used in advertising, the markets targeted, and the choice of media. The marketing goal is to draw the most out-of-state visitors and achieve the greatest possible return-on-investment for this industry and the state.

The increased state dollars directed toward tourism marketing have delivered a very positive return-on-investment for North Dakota. In 2005, the state spent \$1.08 million on tourism advertising. Research conducted by Longwoods International, a leading travel industry market research company, reveals that this advertising brought \$88 million to the state. For each dollar spent on paid media in 2005, North Dakota received more than \$81 in visitor spending. This is a 50 percent increase in ROI from 2004, when each dollar created \$55 in visitor spending.

North Dakota's tourism advertising campaign is working. In fact, the state's experiences in tourism marketing might provide valuable lessons for policy makers when considering solutions to other image-related issues such as economic development and attracting/retaining workers.

In terms of tourism, immediate needs for growing this industry fall into two broad categories.

First, the state would be well-served by keeping existing visitors here longer. The state's visitor information centers provide a point-of-contact for doing this. The Tourism Division would like to staff these centers with trained personnel who can provide good information to travelers about places to go and things to see and do. The people passing through visitor information centers have already made the decision and effort to get here. It makes good sense to spend some money to keep them here longer and ensure that their stay is as positive as possible. This is much less expensive than generating a new visitor.

Secondly, there is an ongoing need for infrastructure development. North Dakota needs more attractions – things to do, places to stay, recreational opportunities – to offer tourists who vacation here both from in-state or out-of-state.

The industry will be pushing a program that calls for state incentives for the development of tourism-based businesses. Most tourism-related businesses don't meet the "primary sector" requirements necessary to qualify for many existing state business incentives.

However, the North Dakota Development Fund has developed criteria for tourism-based businesses, and has approved at least one loan to a future Bismarck restaurant that demonstrated it will serve as a destination. In doing so, the business had to prove it will draw a significant part of its business from out-of-state. The tourism criteria established by the Development Fund include:

- The business must have a direct impact on the local or regional tourism industry.
- An emphasis will be placed on community support for the project.
- Businesses must be historically profitable and must have existed for a minimum of three years.
- Development fund investments will only be considered for renovation or purchase of capital items which are fundamental to the prime attraction.

Last session, a new category of grants was added to APUC to support agri-based tourism businesses. APUC has made presentations promoting this program at the state Tourism Conference, Marketplace and two other regional tourism conferences. At this point, one business has completed the funding process. Red Trail Vineyard of West Fargo has received \$10,000 for marketing the 1st Annual Wine & Grape Harvest Festival.

A second business Black Butte Adventures of Velva, has requested \$1,000 for marketing and advertising its hiking, biking and agriculture tourism destination near Sawyer, N.D. The grant will be reviewed at APUC's meeting the end of this month.

Another idea that Commerce is considering is a program that would provide matching grants to communities that wish to improve the look of their towns. For example this could provide small grants for towns to improve their front entrances and possibly put up signs around town to direct people to tourism destinations.

A couple final points on tourism: Building incentives for creating quality attractions, services and experiences will enhance North Dakota's overall quality of place, and will serve as a magnet to attract and retain visitors, residents and young people. Likewise, continuing to expand the advertising program will help improve North Dakota's image as a whole nationally which has many positive residual affects for economic development.

Advanced Manufacturing/Technology-Based Businesses

Specific tactics used for advanced manufacturing includes the Dakota Manufacturing Initiative that is being implemented by the Dakota Manufacturing Extension Partnership. The Dakota Manufacturing Initiative is a 2004 Business Congress initiative to start a manufacturing association and support supplier development. The Dakota MEP also assists manufacturers to help them become more competitive.

The Centers of Excellence program has also been used to strengthen North Dakota's manufacturers and technology-based businesses. Approved Centers relating to these target industries include Dickinson State University's Center for Entrepreneurship and Rural Revitalization – Institute for Technology and Business, Lake Region State College's Dakota Center for Technology Optimized Agriculture, North Dakota State University's COE for Advanced Electronics Design and Manufacturing & COE for

Surface Protection, University of North Dakota's COE in Life Sciences and Advanced Technologies, and Valley City State University's Institute for Customized Business Solutions.

Global Economy

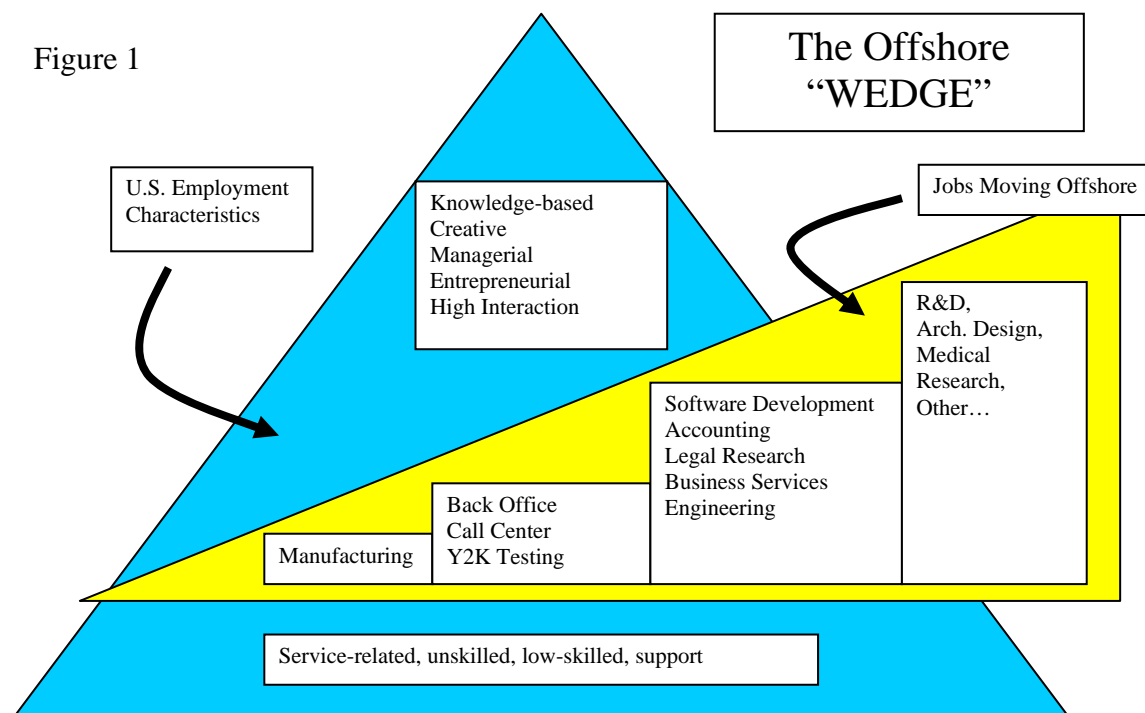
The global economy is upon us. For an increasing range of business processes – from manufacturing to software development to legal research – U.S.-based companies are turning to offshore alternatives as cost-effective responses to their market challenges.

North Dakota has been able to retain and even grow manufacturing jobs while all but two other states saw declines in manufacturing in recent years. However, the reality is manufacturing and technology-based businesses in North Dakota face a serious threat from off-shore competition.

The Department of Commerce commissioned a study titled “Global Competition and North Dakota's Target Industries,” to better understand this threat, how it is affecting our existing businesses, and what we can do about it. The study reveals some disturbing information, but also provides some recommendations for tactics North Dakota can employ to remain competitive in the global market long term.

The relocation of work to low-cost offshore locations has formed an expanding wedge that is striking at the heart of traditional U.S. employment markets.

Figure 1



The “point” of the wedge is offshore manufacturing. Textiles, toys, furniture, and consumer electronics are now almost exclusively manufactured in low-cost labor markets overseas -- aided by lower-unit costs of transportation and communication.

With the growth of the internet, and significant investments in digital technology, the wedge has grown to include business and professional services that can also now be accomplished offshore. As technology improves, and the sophistication, experience and English-language proficiency of offshore labor markets increases, offshore opportunities are likely to open in even more complex, knowledge-based professions.

Is this affecting North Dakota businesses? YES.

As part of this study, many of North Dakota's major employers were interviewed to determine the degree to which changes in the global economy are driving a need for change in a company's North Dakota operations. Participants were promised confidentiality and no member of the Commerce staff participated. About a dozen of the state's major employers volunteered to be included in these discussions. Additional large employers were contacted but declined to participate.

Three primary themes emerged from these discussions:

1. Companies are facing intensive pressure to reduce production costs in the face of global competition

- One company reported that their largest industrial customer is demanding more than 10 percent in price reductions this year.
- Another said that designing the costs out of their products was now their number one development objective.

2. Companies are finding it increasingly difficult to recruit and hire skilled labor in the state

- Three companies complained that they were unable to find enough skilled employees to fill their openings last year. Experienced engineers and managers, in particular, are reported to be in short supply, but entry-level positions have also been difficult to fill.
- One company reported that it spent over \$1MM during 2005 relocating employees to the state. Others said that relocating skilled employees to North Dakota was nearly impossible.
- The two companies with the most extensive offshore presence reported the least difficulty with talent recruitment (perhaps due to the strength of their brands, perhaps because they were already sourcing difficult to find workers overseas).

3. North Dakota companies are expanding their offshore sourcing activities

- After years of trying to avoid outsourcing, one company with unfilled job openings is now reviewing all production activities for possible offshore solutions.

- One company expressed strong satisfaction with their past performance in North Dakota, but said their growth here had reached its limit. New expansion is already taking place offshore, closer to new markets.
- Three companies said they were turning to sources in India to address the issue of skilled-labor availability (not necessarily to reduce costs).
- For one company, a lack of sophistication among its industrial customers was the only thing stopping it from moving work offshore. In essence, the inability of its customers to manage the complexity of an offshore supply chain has kept jobs in the state (Note: as offshore vendors get better at providing user-friendly services in the North American market, this position will probably erode).

That North Dakota companies are experiencing intense cost pressures due to global competition is no surprise. But the other themes identified in these discussions were less expected: *North Dakota companies are finding it increasingly difficult to recruit employees for well-paying jobs in the state, and the lack of available skilled labor may be driving as much offshore sourcing as the desire for low costs.*

Some secondary findings from the company interviews are also worthy of mention:

- Two companies mentioned that the location of their businesses in ND was due to historical accident and that if they started from scratch today they would choose somewhere else for labor availability and logistics reasons.
- The logistics of doing business in ND can be challenging for many companies.
- The value of the North Dakota “Can Do” labor force is perceived by some to be decreasing. One manager referred to this as the “distance from the farm” effect and believed that while many workers today are now two or more generations away from the farm, the work ethic is still better in North Dakota than in many other states.

Referring back to the illustration of the wedge: Below the wedge are service and support jobs in retail, food service, hospitality, customer service and the like. These are the jobs that must generally be done locally and in person.

Above the wedge lie occupations dependent upon intellectual-capital and high-levels of customer interaction – entrepreneurs and managers, creative artists and professors, trial lawyers and surgeons. These jobs, for the most part, are immune to the offshore threat. But these jobs are very few in number in most places in the United States and they require a great deal of investment to create and maintain.

The challenge for North Dakota is to execute an economic development strategy that identifies those activities that are either above the wedge, or relatively insulated from offshore competition because of the unique characteristics of an industry in a North Dakota location.

The report provides a detailed analysis of this threat and how North Dakota should respond to it. The Interim Economic Development committee might want to consider

receiving a full presentation of this report from its author Eric Van Horne at its August meeting in order to more fully understand this issue and its implications for our state. Commerce would be happy to facilitate such a report.

Key Recommendations include:

1. Refine the state's economic development targets to focus more exclusively on projects that can be defended in a global economy

- Narrow the focus within each of the state's target industries to those niche areas that can most probably be defended from offshore competition
- Create a strategy office within Commerce to help drive this new activity
- Define what it means to be a "highly responsive" economic development entity, and then hold the various divisions of Commerce accountable to those standards

2. Develop an explicit People Development Strategy to address the growing shortage of highly-trained labor in the state

- Define and implement programs to recruit smart, entrepreneurial individuals to the state, and to encourage those already here to stay
 - Expand University academic scholarship programs to draw high-level candidates
 - Invest in infrastructure that will help improve quality-of-life amenities in North Dakota cities
- Expand the current support for entrepreneurial ventures
 - Reauthorize and grow the Centers of Excellence program
 - Develop a venture capital fund and other "new ventures" programs to focus first on the existing individuals and intellectual capital infrastructure in the state
- Review the state's secondary and undergraduate education systems to bolster the state's competitive position in the global economy
 - Enhance the business-professional preparation available at 4-year undergraduate institutions in the state
 - Raise the profile of competitive, disciplined and entrepreneurial academic activities (to match the attention paid to interscholastic and intercollegiate athletics) as a matter of state policy

3. Engage in rapid results projects to achieve concrete program results

- Employ a "back-planning" approach to determine what things will need to change, and the sequence of that change, in order to achieve the state's vision in each of its target industries within prescribed time-frames
- Initiate and complete a series of 100 day projects to create momentum and generate real progress against these objectives quickly

Recommended Legislative Changes Necessary to Better Focus Economic Development Services on these Industries

The Department of Commerce continues to use the resources and tools granted to us by the legislature to target industries and help grow North Dakota's economy. A few possible legislative actions to consider include:

- Establish a state-funded Visitor Information Center program in an effort to encourage visitors to stay longer and return for future trips. This program could assist with staffing cost in order to extend the hours, allowing visitors to access information later in the evening and on weekends. Training could also be provided to VIC personnel.
- Create a small pilot grant program for the expansion or development of tourism-based businesses/destinations.
- Provide a matching fund program for communities to improve the look of their towns in order to become more attractive to tourists.
- Consider recommendations from the "Global Competition and North Dakota's Target Industries" in light of the current business climate study process.