

## SUMMARY OF 2005 CENTERS OF EXCELLENCE APPLICATIONS

The 2005 Legislative Assembly approved Senate Bill No. 2032 establishing a centers of excellence program. The Centers of Excellence Commission created by the bill is responsible for the application process and for making funding award recommendations for commission-approved applications for centers of excellence. Upon approval of the application by the Centers of Excellence Commission, the State Board of Higher Education, North Dakota Economic Development Foundation, and Budget Section

(with input from the Emergency Commission), an entity may be provided a funding award and be designated as a "center of excellence."

### APPLICATION SUMMARIES

Senate Bill No. 2032 includes the requirements and other considerations listed below related to approving a center of excellence. The 2005 centers of excellence applicants approved by the Centers of Excellence Commission totaling \$8,950,000 are also listed along with summary information from each of the applications.

Description	Project - Application Summary			
	Bismarck State College Energy Center of Excellence	Lake Region State College Dakota Center of Optimized Agriculture	North Dakota State University Center for Advanced Electronics Design and Manufacturing	University of North Dakota National Center for Hydrogen Technology
Use of funds	Funding will be used to construct a facility at Bismarck State College to provide the capacity and infrastructure for a highly trained and productive energy industry workforce.	Funding will be used for personal and related expenses to develop technology-optimized products to improve North Dakota Agriculture.	Funding will be used for personnel and related expenses to research the development of highly marketable products involving advanced electronics.	Funding will be used to construct a facility at the University of North Dakota to conduct research on and demonstrate the usability of hydrogen as an energy source.
Centers of excellence funding request	\$5,800,000	\$658,825	\$4,585,000	\$2,500,000
Proposed centers of excellence funding award	\$3,000,000	\$450,000	\$3,000,000	\$2,500,000
<b>Requirements</b> A center must be an institution of higher education or a nonprofit university- or college-related foundation under the control of the Board of Higher Education.	Bismarck State College Foundation	Lake Region State College	North Dakota State University	University of North Dakota Energy and Environmental Research Center
The institution or nonprofit foundation must be working in partnership with the private sector.	Great River Energy Basin Electric Reliant Energy MDU North American Coal Westmoreland Coal Minnesota Power/BNI Coal	Agri ImaGIS Total-Crop Farming Systems Summers Manufacturing	Alien Technology Crane Aerospace and Electronics Clinical Supplies Management	ePower Kraus Global, Inc. Basin Electric Phoenix Industries Xcel Energy
Total matching funds anticipated (\$2 of matching funds are required for each \$1 of state funds).	\$13,082,000	\$1,317,650	\$9,500,000	\$14,500,000

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<b>Major consideration</b> In making funding recommendation and designation determinations, the commission, board, foundation, and budget section <b>shall give major consideration</b> to the portion of matching funds provided <b>in cash</b> by the <b>private sector</b> .	\$4,020,000 <sup>1</sup> (Other cash is being provided from federal, state, and local sources.)	\$0 (All matching is in kind.)	\$0 (Cash is being provided from federal sources.)	\$1,715,000 (Other cash is being provided from federal and local sources.)
<b>Other considerations</b> In considering whether to approve or disapprove an application, the commission <b>is to consider</b> whether the center will:				
Use university or college research to promote private sector job growth and expansion of knowledge-based industries or use university or college research to promote the development of new products, high-tech companies, or skilled jobs in this state	Training available from Bismarck State College is expected to allow energy companies to construct new or expand their current power plants and increase their workforce.	College and private sector research is expected to promote the development of new products, provide a platform for new businesses, and create jobs.	The center of excellence activities are expected to allow for business expansion for advanced electronics design and manufacturing and result in new products being developed.	The energy and agricultural sectors have an opportunity for significant job growth as new technologies are commercialized to produce hydrogen.
Create high-value private sector employment opportunities in this state	Training available from Bismarck State College is expected to allow energy companies to expand their workforce - 3,350 new construction jobs and 973 permanent jobs projected.	Jobs are expected to be created to design software components, integrate hardware components, design and manufacture equipment, and to provide consulting and education services.	Jobs are expected to be created relating to expansion of product lines, new manufacturing contracts, and commercialization of new technologies and products.	It is anticipated that 50 new private sector-equivalent highly technical jobs will be created at the Energy and Environmental Research Center.
Provide for public-private sector involvement and partnerships	A number of public/private partnerships are identified.	A number of public/private partnerships are identified.	A number of private sector partners are identified.	A number of public/private partnerships are identified.
Leverage other funding	The center expects to attract federal and private grant funds, with \$9.5 million identified.	Federal grant applications are pending and licensing and fee revenue will be generated.	Federal grant funds have been received and additional grants are anticipated.	The center anticipates a total of \$50 million of funding will be available in the next five years for hydrogen-related opportunities.
Increase research and development activities that may involve federal funding from the national science foundation experimental program to stimulate competitive research	Two "innovative and cutting-edge" research projects are identified as being in development--web lab and fly ash research.	A federal grant application has been submitted.	These types of federal grants have been received and are expected to continue.	The center is expected to allow for more specialized work to be conducted enabling the center to obtain federal research funding.
Foster and practice entrepreneurship	Construction of the center is expected to allow for demonstration of the effective use of coal combustion and recycled materials. Its goal is to commercialize	Training provided by Lake Region State College is focusing on entrepreneurship. The center's resources will be used for objectives that target entrepreneurship development.	The center is expected to allow student interns to observe and learn the activities involved in technology transfer and entrepreneurship.	The center's culture allows each researcher to act as an entrepreneur.

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	new technological tools and online training materials.			
Promote the commercialization of new products and services in industry clusters	The center is expected to allow Bismarck State College and North Dakota to be the leader in national and international energy training and to expand the use of fly ash.	Technology-related components and equipment will be developed for use in agriculture.	The center is expected to involve advanced manufacturing and value-added agriculture industry clusters and the marketing of related products.	The center's focus is on producing new technologies for the marketplace.
Become financially self-sustaining	The program is producing training and technology that is marketable. The program antici- pates increased tuition revenue, training contracts, product marketing, and private and public funding.	Funding to sustain the program is expected to be provided from software and other technology licensing fees, training fees, product sales, and federal grants.	The center's initial funding will allow for new industry contacts. New revenues will be generated from usage fees and engi- neering services income, patent licensing royalties, and new federal grant awards.	The Energy and Environmental Research Center is currently self-sustaining and is expected to continue to be.
Establish and meet a deadline for acquiring and expending all public and private funds specified in the application	Anticipates construction to be completed by December 2007 and all funds to be spent by the end of 2008	A three-year time period is anticipated.	The proposed budget anticipates the funds being spent over a three-year period.	The funding will be spent within two years.
<sup>1</sup> Additional private sector cash may be provided depending on the actual value of Great River Energy's in-kind contribution. Great River Energy has committed \$1 million of cash and in-kind contributions.				

### APPROVAL PROCESS

In order to receive a funding award and be designated as a center of excellence, each application must:

1. Be approved by the Centers of Excellence Commission - The commission may modify the application request (Section 15-69-02(1)).
2. Be approved by the Economic Development Foundation (Section 15-69-02(2)).

3. Be approved by the State Board of Higher Education (Section 15-69-02(2)).
  4. Be reviewed by the Emergency Commission. The Emergency Commission may not approve or deny the application but makes a recommendation on each application to the Budget Section (Section 15-69-02(2)).
  5. Be approved by the Budget Section (Section 15-69-02(2)).
- Once an application is approved by the Centers of Excellence Commission, the foundation, board, and Budget Section may not modify it. Each entity may only approve or deny the application.