

Quadrennial Energy Review Public Meeting #9
Bakken Workforce Development Panel
Comments from Dave Clark, Interim President of Bismarck State College
August 8, 2014

Located in Bismarck, North Dakota, Bismarck State College was established in 1939. We are accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools. We serve 4,100 credit students and 17,000 through continuing education – both online and on-campus across the country. We are the third largest campus in the North Dakota University System, just behind our two research universities, University of North Dakota and N.D. State University. We offer a total of 85 programs at BSC - 42 associate degrees and 42 technical programs and a single bachelor degree – the Bachelor of Applied Science in Energy Management. We also offer an array of customized training and apprenticeship programs.

National Energy Center of Excellence

Completed in 2008, the National Energy Center of Excellence or NECE is a 106,200 square foot building, constructed with significant funding from business, energy and both state and national government. The energy efficient design includes a geothermal system as well as state-of-the-art lab facilities and equipment.

North Dakota Unemployment

North Dakota has the lowest unemployment rate in the nation. Even in 2002, before our current energy and population boom, you can see that we were nearly 2 percent lower than the nation's average unemployment rate at the time. In 2013, as the U.S. began recovering from the recession, dipping down below 8%, our unemployment rate has dropped even more – to about 2.5%.

Job Growth

At the same time, in these past years, North Dakota has had the most robust job growth in the nation growing at greater than 3% annually from 2009-2013.

Energy Resources

North Dakota has always been a commodity driven economy, and the great bulk of our growth is tied to our energy boom. You can see by this map the variety of energy we boast. Coal, wind, ethanol, hydro power and of course oil and gas. The Bakken and Three Forks formations encompass much of western North Dakota and account for the astounding growth in our population, wealth and job demand.

BSC Energy Programs – On Campus

BSC has offered energy programs since 1970, when we established the electric lineworker program to meet a growing need in the state. Today, we offer the following energy programs on campus (the year they were established is noted also):

- Lineworker (1970)
- Power Plant Technology (1976)
- Process Plant Technology (1982)
- Mechanical Maintenance (2007)
- Instrumentation & Control (2008)
- Renewable Generation Technology (2010)
- Petroleum Engineering Technology (2012)

BSC Energy Programs – Online

As federal grants became available over the years, our ability to deliver education and training grew. BSC began offering online programs in 1998 and was able to expand them exponentially (especially in energy) thanks to grants from the National Science Foundation and the Department of Labor:

- Power Plant Technology (2000)
- Process Plant Technology (2000)
- Instrumentation & Control (2008)
- Renewable Generation Technology (2010)
- Electric Power Technology (2001)
- Electrical Transmission Systems Technology (2003)
- Nuclear Power Technology (2004)
- Bachelor of Applied Science: Energy Management (2008)
- Petroleum Production Technology (2011)
- Smart Grid (2011)
- Water & Wastewater Technician (2012)

Other Programs Supporting Bakken Workforce Demand

In addition to the energy-specific programs in place, BSC prepares students to fill the pipeline in support industries affected by the boom. From welding to our health care programs, our students are getting trained here, and being employed in the state as fast, and sometime faster, than we can graduate them.

For-Credit Enrollment in BSC Energy Programs

Last year, BSC had 1,359 students enrolled in energy programs from 50 states and several foreign countries.

Industry Training

An extension of our undergraduate offerings is our industry training. Leveraging courses recognized and developed in cooperation with the energy industry, BSC offers cost effective, customized, hands-on training, and flexible schedules. Our instructors teach technique and troubleshooting skills for a variety of employers.

Offered in cooperation with our state's workforce training arm TrainND, some examples of recent training in North Dakota include:

- Dakota Prairie Refining; trained operators
- Minnesota Power; Bison Wind farm
- Great River Energy; Coal Creek Simulator
- ONEOK, Hess, Whiting & Aux Sable; natural gas processing

Non-Credit Enrollment

In addition to our for-credit students, we had 1,713 non-credit students enrolled last year in almost every state as well as some foreign countries. Of those, 977 were taking part in the smart grid offerings made possible by the DOE Smart Grid grant.

Partners

The energy training BSC provides from both a credit and non-credit perspective is possible only because of the support and insights of our many national and statewide partners. Many of our partners are present here today. If you wander around this building you'll find their names on labs, auditoriums and classrooms acknowledging their significant engagement with our energy offerings and this incredible training facility.

Interactive Learning Tools

Delivering state of the art training is dependent on our ability to create an interactive experience that duplicates what students see in their jobs. Through the use of animation and simulation, we have a super technical team at BSC focused solely on creating and updating that online curriculum.

Remote Laboratories

Students enrolled in online training are able to engage very much like on campus students thanks to innovations like our remote laboratories. You'll see a quick glimpse of those here.

TREND Consortium

BSC is not the only institution in the area ensuring the pipeline of workers is filled in North Dakota. One of our most important partnerships is the TREND Consortium. TREND stands for Training for Regional Energy in North Dakota. Supported by a \$14.6 million Department of Labor grant, BSC leads five community and tribal colleges in a state and tribal consortium creating job training in the areas of:

- Oil/gas
- Transportation
- Welding
- Building/construction

In closing, I want to thank all of the dignitaries here today: Secretaries Foxx and Muniz, Dr. Holdren, Assistant Secretary Schneider, our North Dakota Congressional delegation and Gov. Dalrymple. We are proud to host you and proud of our role in moving the United States toward energy independence and developing the workforce that fuels the Bakken.