**Minnesota Legislative Hearing on New Coal Technology**

**January 31, 2017 – 1:00 PM**

**Minnesota Senate Building 1150**

**Mike Holmes**

Vice President, Research and Development – the Lignite Energy Council

Michael J. Holmes is the Vice President of Research and Development at the Lignite Energy Council, where he currently oversees fossil energy research areas. Mr. Holmes' principal areas of interest and expertise include CO2 capture; fuel processing; gasification systems for coproduction of hydrogen, fuels, and chemicals with electricity; process development and economics for advanced energy systems; and emission control (air toxics, SO2, NOx, H2S, and particulate technologies).

Mr. Holmes received an M.S. degree in Chemical Engineering from UND and a B.S. degree in Chemistry and Mathematics from Mayville State University. He is an Executive Member and serves on the Board of Directors of the Fuel Cell and Hydrogen Energy Association and has been the recipient of Lignite Energy Council Distinguished Service Awards for both Government Action Program (Regulatory) (2005) and Research and Development (2003). Mr. Holmes has authored or coauthored more than 120 professional publications and 12 U.S. patents.

Mike will discuss the work being done on the Allam Cycle and coal carbon capture in North Dakota.

**Nathan Domyahn**

Director – Peaking and Generation Engineering – Great River Energy

**Nathan Domyahn** joined Great River Energy in 1999 and has worked in the utility business since 1996. During this period, he has served in a number of positions including plant engineer, environmental engineer, plant manager and more recently Director of GRE’s natural gas and solar facilities and corporate engineering group. During this period, he has been involved in new generation development including renewables as well as managing numerous power generation stations.

He is a former chairman of the North Dakota Water Supply Pollution Control Board (a governor appointed position) and registered professional engineer. His formal education includes a degree from North Dakota State University in Civil Engineering as well as numerous continuing education classes in technical, project and performance management areas.

He is active in a variety of civic and cultural organizations including local youth coaching and mentoring, Habitat for Humanity and church related functions. An important aspect of his life is family – his wife and two daughters (which challenge both mother and father in keeping up with traveling sports and academic demands).

**Brendan Jordan**

Vice President – Great Plains Institute

Brendan joined the Great Plains Institute in 2004. He has ten years of experience leading initiatives to promote deployment of clean energy technology. He works across subject areas, including bioenergy, low carbon fuels, transportation, energy infrastructure, and sustainable communities. Brendan is an experienced facilitator, energy researcher, policy analyst, project manager, communicator, and advocate. He serves as lead staff for the Bioeconomy Coalition of Minnesota, an industry-led partnership working to commercialize biobased chemical and advanced biofuel technology in Minnesota. He has served for 6 years in a lead facilitation role for advisory groups to the Midwestern Governors Association focused on fuels and transportation, and is currently working with MGA on alternative fuel refueling infrastructure.

He is part of the GreenStep Cities team at GPI, and is working on transportation and land use best practices. He also is part of a team collaborating with Argonne National Laboratories on life cycle accounting methodology for biofuels. He works nationally and regionally on policy to support deployment of low carbon fuels and renewable chemicals. Brendan is part of GPI's infrastructure team, and helps support the Institute’s work on transmission and the electricity grid. Brendan has a Masters of Science in Science, Technology, and Environmental Policy from the University of Minnesota’s Humphrey Institute of Public Affairs, and a undergraduate degree in biology from Carleton College in Northfield, MN. Originally from Eau Claire, WI, Brendan lives in Minneapolis, MN with his wife and two daughters.

Brendan will discuss the future of coal in a carbon constrained world.