

Al Kuntz Technology Manager



*Primary objective is to maintain a viable lignite coal industry and enhance development of the region's lignite coal reserves.



Mission statement

- * Preserve existing lignite industry operations
- Promote further development
- * For benefit of
 - Consumers
 - Producers / Developers
 - Utilities, cooperatives and other users
 - Contractor/Suppliers





The R&D Program: Industry/Government Partnership

State of North Dakota



Lignite Energy Council

- * Funded by 10-cents per ton severance tax allocation / \$3 million annually
- * Every state dollar invested has resulted in \$5 of industry match
- * 2005 Legislature provided \$15.5 million appropriation to Industrial Commission for R&D & marketing funding



Current LEC Membership

- * 285+ Contractor/Suppliers
- * 4 Investor-Owned Utilities
- * 4 Producers
- * 3 Reserve Holders
- * 3 G&T Cooperatives
- 2 Canadian Entities (Lignite Research Focus)
- 1 Gasification Company
- 300+ Members





Mission: Protect existing operations and enhance lignite development

- ***** Government Action
- Public Relations
- Marketing
- * Education
- * Lignite Vision 21 Program
- Research & Development





Lignite Vision 21 Program Focus on Lignite's Strengths

Objective:

- * Build lignite energy conversion facilities in North Dakota (electrical generation, coal-to-liquids, etc)
- Develop new technologies / Upgrade existing facilities



Challenges:

- Environmental (PSD, Hg, Visibility, CO₂)
- * Transmission



Lignite Vision 21 Program

- State of North Dakota has provided:
 - \$10 million in grants/loans to each applicant
 - \$26 million in tax credits





Public / Private Partnership

- Grant Application Process
 - Project Completeness Review
 - Independent Peer Review
 - Lignite Research Council Review & Recommendation
 - Industrial Commission Decision



Ethanol Plants

- *Red Trail Ethanol Plant
 - Lignite Research Council/NDIC have pledged \$350,000 to Red Trail, currently under construction near Richardton
 - Plant will use lignite for boiler



Coal-to-Liquids

- Great River Energy, Headwaters Inc., North American Coal Corp. & Falkirk Mining Co. are exploring a coal-to-liquids project near Underwood, ND
 - Will gasify coal and convert it into ultra-clean diesel & other fuels/petrochemicals.
 - Production is estimated to be 10,000-50,000 barrels per day of liquid fuels would require 3-15 million tons of coal.
 - Project is still in the preliminary stages currently trying to fund a site-specific engineering study.

For more information on present and past projects:

*www.Lignite.com

For more information on Grant Funds and Tax Incentives:

www.Lignitevision21.com

