

Nordic Energy of Ashtabula, LLC  
DE-PS26-02NT41428  
August 1, 2002

**PUBLIC ABSTRACT**

Applicant (primary) name: Nordic Energy of Ashtabula, LLC

Applicant's address: 2010 Hogback Rd, Suite #4, Ann Arbor, MI 48105

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Team Members (if any): Gasification Engineering Corp., a Global Energy Company  
(listing represents only participants 1000 Louisiana, Suite 3800, Houston, TX 77002  
at time of application, not necessarily  
final team membership)

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Proposal Title: **Ashtabula Advanced Gasification Coproduction Facility**

Commercial Application       New Facilities       Existing Facilities

Other, Specify:

Technology Type: E-GAS™ Gasification Technology

Estimated total cost of project:  
(May not represent final negotiated costs.)

Total Estimated Cost: \$1,230,000,000.00

Estimated DOE Share: \$ 150,000,000.00

Estimated Private Share: \$1,080,000,000.00

Anticipated Project Site(s): Ashtabula Township, Ashtabula County, Ohio

Type of coal to be used: Bituminous

Size or scale of project: nominal 800 MWe

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Duration of proposed project: January 2003 to June 2011

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**PRIMARY CONTACT:**

For additional information,  
interested parties should contact:

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**Alternative Contact:**

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## **PUBLIC ABSTRACT (cont'd)**

### **Brief description of project:**

#### **Integrating Clean Coal Technologies and Cogeneration Opportunities with Industrial Land Reuse**

Nordic Energy of Ashtabula, LLC (Nordic) will build, own and operate a commercial scale, clean coal technology electric generation plant near Ashtabula, Ohio. The Nordic plant will utilize the E-Gas™ integrated gasification combined cycle technology owned by Global Energy, Inc. (Global) of Cincinnati, Ohio. The plant will be capable of producing a net output of approximately 800 Mwe, in what will be one of the cleanest coal fired power plants in the world. New technology gives Nordic the opportunity to produce power with virtually no particulate emissions. This project is structured as a cogeneration facility with a portion of the power and steam from the power plant being used in the ethanol and dry grains production process in a neighboring facility.

The Ashtabula Advanced Coal Gasification Coproduction Facility will be built by Nordic on vacant industrial land that once was owned and used by Union Carbide Corporation. The land has not been used in over 30-years and small areas of the land had been used for solids storage from past ferroalloy processes. Working with Elkem Metals Company and the Ohio Environmental Protection Agency, Nordic was able to become involved in the resolution and removal of the solids. The material was characterized according the state guidelines and moved to other locations for proper management. Through these joint efforts, a piece of land that had potential environmental challenges and no foreseeable future use, will now house both a generation plant and ethanol processing facility with potential synergistic fence line agreements with Elkem and several other neighboring chemical facilities.

Nordic remains committed to the use of environmental responsible technology for the production of electricity using one of America's most abundant fuel sources, coal. The E-Gas™ process is currently operational at the Wabash River Coal Gasification Repowering Project (Wabash) in Terre Haute, Indiana, which was built under the Department of Energy's Clean Coal Technology program. Air emissions at Wabash, in operation since 1995, are lower than conventional technology coal plants that have been permitted for operation in 2005. Even while using higher sulfur coal, the plant has SO2 emissions as low as one fortieth of the Year 2000 Clean Air Act Standards. The plant has virtually no particulate emissions as well.

The Nordic plant will be unique and different than the Wabash plant in many ways. The next generation E-Gas™ gasifier technology, used in the project, will improve overall cycle efficiency. Even greater sulfur dioxide removal than Wabash is planned, and NO x emissions will also be lower. With mercury from coal fired generation becoming a growing environmental concern, the Nordic plant will contain a mercury capture system that will remove an estimated 90% of the mercury from the traces found in the coal. The Ashtabula plant will also be multi-train facility, improving availability

and reliability of electricity generation while reducing the installed cost by virtue of economies of scale. Commercial operation is scheduled for June 2007, followed by a four-year demonstration as part of the DOE Clean Coal Power Initiative. Including the planned four-year demonstration for the Department of Energy, the project is estimated to cost \$1,230,000,000 excluding fuel costs. Under the Clean Coal Power Initiative, the Department of Energy will provide \$150 million of this amount, approximately 12% of the total.

Nordic is investigating the potential use of hydrogen fuel cells for future applications in plant processes. A proponent of new technologies, Nordic looks for advances in processing to meet consumers' needs. Nordic's goal is to show how the IGCC process used in a series of gasifiers can produce reasonably priced generation for sale into the deregulated market. Environmentally conscientious, Nordic believes that it has chosen the technology that can move coal base-load generation into the public's awareness by virtue of continued reliability with emissions approaching natural gas fired generators.

For more information, contact:

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