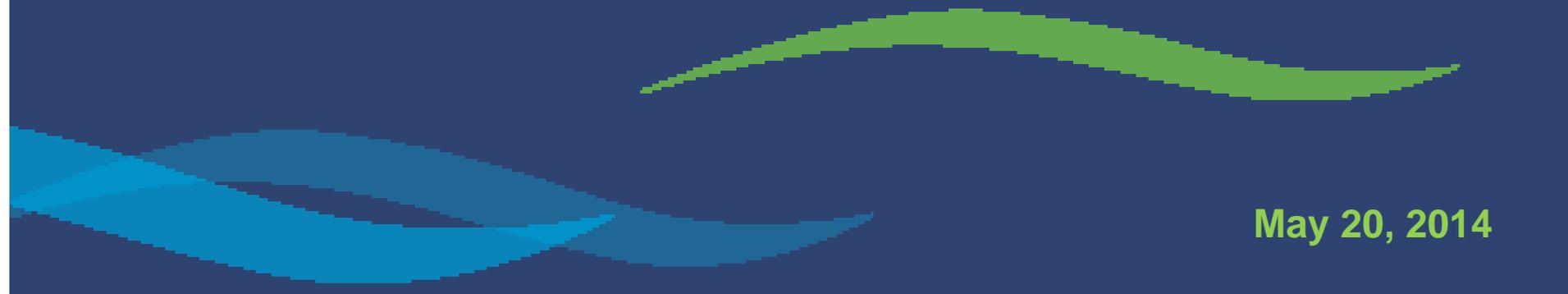




Mound Energy Initiatives Reindustrialization Workshop

Eric Cluxton, President
Mound Development Corporation



May 20, 2014

Strategies for Energy Initiatives

Created with the support of \$1 million from the House 2010 Energy and Water Appropriations Bill.

Goal 1 – Reduce dependence on external power sources

- Establish on-site renewable production using two solar sources.
- Increase building efficiency through investments in various energy-efficient building systems for heating, ventilation and air conditioning (HVAC) and electrical service.
- Alter energy usage patterns by modifying building operations.



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Strategies for Energy Initiatives

Goal 2 – Utilize Mound’s unique variety of commercial building types (lab, office, warehouse, manufacturing) as a tool for education, networking and information sharing.

Mound implemented activities that aim to:

- Reduce the cultural barriers to renewable energy sources
- Increase energy
- Expand energy-related knowledge and know-how.

Based on existing relationships, assets, and pending renewable (solar) projects, and future demonstration projects, Mound continues to act in a coordinating role, organizing educational forums, roundtables, exhibits, and other events designed to improve the knowledge base of those with business and personal interests in renewable and alternative energy. Numerous audiences, ranging from children and college students to business leaders and the general public, benefit from such an effort.



Strategies for Energy Initiatives

Goal 3 – Provide economic benefits by leveraging Mound assets to develop jobs.

The overall goal at Mound is to redevelop the former nuclear weapons site and return it to productive use. Thus, the main thrust of activities and investments at Mound must be:

- Creation of jobs and community wealth
- Site asset reuse
- Market development acceleration

Strategies for Energy Initiatives

Mound's business development activities serve as a catalyst to accelerate energy conservation. Support organizations include:

- Federal energy organization(s), (e.g., Department of Energy)
- Electric utility provider(s)
- Existing energy companies
- New/aspiring energy companies
- Economic development administrator
- Research institutions
- Educational institutions

These organizations will participate in the development of energy businesses and products by supporting activities such as business incubation, development, demonstration and integration projects, education and training, and research.

Why Mound as a Center for Renewable and Alternative Energy Technologies

Mound is a business park being redeveloped from a former Department of Energy nuclear weapons production and development site in southwest Ohio. Mound Development Corporation (MDC), Mound's economic development organization, is uniquely positioned to support the Energy Initiatives for several reasons:

- **Not-for-profit charter.** The organization is charged with building wealth for the community through job creation. Acting as an agent for the city of Miamisburg, it has greater flexibility and fewer operational restrictions than most public sector entities.



Why Mound as a Center for Renewable and Alternative Energy Technologies

- **Record of achievement.** The Mound has a remarkable redevelopment history involving the creation of new jobs, incubation of new companies, passage of federal enabling legislation, transfer of property, and the complete remediation and de-listing of a nuclear weapons superfund site. These successes are the result of political and business relationships, sound management strategies, and the community's commitment.
- **Economic development and energy mission.** The Mound is leveraging its assets, relationships and unique position as a former Department of Energy facility to target markets in emerging energy, materials, advanced manufacturing, and information systems. These areas represent technology specialties of the site's existing client base and the region's strengths (as identified in a study conducted by Battelle for the state of Ohio). The emerging national focus on renewable and alternative energies has created an opportunity for Mound to increase its efforts in this market segment.

Support for the Mound's Energy Initiatives

Support and collaboration have come from several sources:

- **Congress and DOE-EM.** Recognizing that the completion of remediation in 2010 positioned Mound to fully realize its economic development potential, Congress supported Mound's environmental cleanup with line items of \$30 million (FY06), and \$4.75 million (FY09). The Department of Energy, Office of Environmental Management, contributed \$5 million (FY08) to supplement the Congressional line item, and committed an additional \$20 million from stimulus funds in 2009.

In addition, a \$1 million line item was placed in the House 2010 Energy and Water Appropriations Bill to launch Mound's energy initiatives.



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Support for the Mound's Energy Initiatives

- **DOE – Office of Legacy Management.** The DOE Office of Legacy Management has committed \$15 million in support of the Mound facility's redevelopment, which is estimated at \$55 million. Other funding sources, such as those generated through Mound facility leases, have been used for redevelopment as well. In addition, a \$1 million line item was placed in the House 2010 Energy and Water Appropriations Bill to launch Mound's energy initiatives.
- **State of Ohio.** The state of Ohio contributed to the site's redevelopment in two ways: First, the state provided \$2.4 million in grants for infrastructure, including Mound roadways and utilities.

Second, the state partnered with Mound and several site businesses by providing an award of approximately \$1 million to develop a state-of-the-art hydrogen fuel cell testing system. Additional state support has been provided directly to the businesses through grants and tax credits.

Support for the Mound's Energy Initiatives

- **Community.** The City of Miamisburg and Montgomery County have also supported the redevelopment efforts, providing over \$2.1 million toward various improvements. In addition, countless hours have been provided by community leaders and volunteers as in-kind contributions toward redevelopment.
- **Local utility.** The City of Miamisburg and Montgomery County have also Mound has developed a relationship with a local utility and entered into a Memorandum of Agreement through which funds have been committed to advance Mound's Energy Center Initiative.

Mound is a party to an application by Dayton Power and Light Energy Resources (DPLER) to the state of Ohio for funds for the first solar (60kW) array on site. Mound itself has submitted a second request to the state for yet another array. From an educational perspective, these two systems will demonstrate the performance differences for two diverse solar-panel technologies side-by-side at a common location in southwest Ohio.

Support for the Mound's Energy Initiatives

- **Local utility (cont'd).** In addition, Mound is a part of a “smart grid” grant proposal made by the utility seeking stimulus funds. DOE, Dayton Power and Light, the Dayton Development Coalition and MMCIC are collaborating in an educational and business networking initiative at Mound. The program began with an “Energy Roundtable and Exhibition” held in June 2009. The event was booked to capacity with 150 participants and 25 exhibitors. It generated interest in potential joint ventures between Mound and several businesses, thus promoting economic development. A second event, focused on solar technologies, was held in January 2010, with a follow-on program devoted to energy conservation. MDC also sponsored a “Green Energy Ohio” solar conference at Mound in October, and the National Association of Industrial and Office Properties (NAIOP) energy awareness program in January.

Mound's Redevelopment Background and Accomplishments

The 306-acre DOE Mound site is located in southwest Ohio near Dayton, within the city limits of Miamisburg. The site has undergone remediation since the announcement of its closure in 1993. The community has been actively involved in the site's remediation and has forged a partnership with the DOE to redevelop the Mound. The relationship with DOE was formalized through the following vehicles:

- A Mound sales contract with MDC, a community redevelopment organization
- A 1998 memorandum of agreement outlining the organizations' working relationship
- DOE grant agreements and financial support
- Site's transition and cost-sharing agreements

Mound's Redevelopment Background and Accomplishments

With the support of DOE, the state of Ohio, the Ohio Congressional delegation and local community resources, MDC has developed and implemented strategies and tactics for business growth and job creation. The redevelopment strategy has been to leverage the nation's investment in the site's human, real and personal property assets to the greatest extent possible so that businesses can generate employment and compete in the marketplace on the strength of their technological advances.

The economic development effort has created more than 600 jobs, and through an incubator program, produced 15 companies, including five Ph.D.-owned firms that remain on site today. These companies harnessed the knowledge and skills developed during the principals' employment as DOE contract employees to create new business opportunities. As entrepreneurs, they have developed significant new technological breakthroughs in emerging energy and other technologies.

Mound's Redevelopment Background and Accomplishments

With their links to the core competencies found in other Mound businesses, Dayton-area industry, local universities, and nearby Wright Patterson Air Force Base laboratories, Mound's energy-focused businesses are at the center of a critical mass of technological expertise, research activity, developmental progress and momentum. Together, these assets uniquely position Mound to serve markets in the areas of emerging energy, materials, advanced manufacturing, and information systems.

These assets and existing relationships are the basis of powerful – and immediate – opportunities at Mound that support the Department of Energy's mission and the job-creation objectives of the American Recovery and Reinvestment Act of 2009. Mound represents an opportunity to quickly establish a Renewable and Alternative Energy Center, whose goal is to bring clean, reliable and affordable energy technologies to market to substantially improve Americans' lives while generating new jobs and enhancing Mound's success as a business park.

Parties' Goals Aligned

Partnerships last when the relationships are mutually beneficial. The goals and interests of the involved parties are closely aligned and supported by the design of the vision. These interests are driven by revenue opportunities and public policy to develop green, renewable and alternative energy, decrease consumer cost, and improve national security. Mound wants to take advantage of its position, relationships and assets to leverage this movement to create business and employment opportunities. By working together, the parties will realize significant benefits.

Accomplishments

- Projects completed:
 - Installing of electronic HVAC controls
 - Lighting upgrades
 - Installation of sub-metering and monitoring equipment
 - Building energy audits
 - Installation of solar area
 - Educational and marketing events
- Efficiencies/cost savings