THIS DOCUMENT WAS PRODUCED BY AN OUTSIDE PARTY AND SUBMITTED TO THE OBAMA-BIDEN TRANSITION PROJECT.

FutureGen™ ALLIANCE

Benefits of FutureGen

Job Creation

The FutureGen project will support significant employment across the country. Formal employment estimates will be prepared as part of this year's conceptual design activities. However, preliminary estimates suggest:

- peak construction employment of 600-700 workers; and
- a permanent workforce of over 100 during the operational phase of the project.

In addition equipment will be procured from a diversity of worldwide vendors supporting manufacturing and service sector jobs.

Energy Security

FutureGen's technology efficiently converts affordable, abundant coal to clean energy, which strengthens global energy security and reduces dependence on higher-priced fuels.

Global demand for energy continues to grow at a pace that requires an ever-increasing use of coal, given its immediate availability and affordability. FutureGen's suite of innovative technologies will help countries around the world strengthen their energy security by being able to use their domestic coal resources in a cleaner way.

In the U.S. alone, demand for electricity is expected to increase by 49 percent by the year 2030, requiring the U.S. to explore new ways of using its most abundant energy source - coal. FutureGen will be a pathway to ensuring that coal can be used in a way that dramatically reduces its environmental impacts yet is still cost effective.

On the international stage, countries such as China and India are also looking to their profuse coal supplies to meet electricity demands. China Huaneng Group, the largest coal-based power generator in the People's Republic of China is a member of the Alliance while the governments of India, South Korea, and China have all joined the Department of Energy's FutureGen International Partnership.

By advancing technology solutions, FutureGen will strengthen a country's energy portfolio and ensure affordable electricity to support growing economies.

Climate Change

While coal is abundant and affordable, it does have its challenges. Chief among these challenges are the CO_2 emissions associated with using coal. CO_2 is an important greenhouse gas that contributes to climate change. Most of the CO_2 from the FutureGen plant will be permanently stored in deep geologic formations drastically curtailing greenhouse gas-related concerns associated with this individual plant. FutureGen will move technology forward and aid in advancing the scientific and engineering basis for capturing and storing CO_2 and dramatically reduce emissions with a goal of near-zero emissions in future plants in the U.S. and around the world.

Technology Transfer

FutureGen will result in profound advancements in clean-energy technologies including progress in coal

THIS DOCUMENT WAS PRODUCED BY AN OUTSIDE PARTY AND SUBMITTED TO THE OBAMA-BIDEN TRANSITION PROJECT.

gasification, hydrogen technologies, CO_2 capture and permanent storage to meet the world's need for clean electricity for economic growth and environmental improvement. FutureGen is a prototype plant, the first of its kind to integrate these advanced technologies at a large scale. It is designed to gasify and test a variety of coal types and CO_2 injection and storage in deep-geologic, saline formations. The combination of these technologies will be applicable to coal and electricity producing regions in the U.S. and around the world.

The FutureGen project will create a network of technology suppliers, collaborations with scientists and engineers from around the world, and through the Alliance, a method to share FutureGen's findings and technological innovations worldwide.

R&D Opportunities

The non-profit status of the Alliance encourages testing and experimenting with the research community. In addition to the full-scale R&D gasification and carbon sequestration platform, FutureGen will have a subscale R&D platform. This subscale platform will enable researchers to access the synthetic gas, hydrogen and other IGCC process streams to gain experience with their systems and components. As a full-scale R&D facility, FutureGen will provide a cost-effective mechanism for advancing high-risk and unproven components and systems that will lead to lower cost, more efficient, and even cleaner uses for coal in the future.

Last Updated: November 2008
Webmaster | Privacy Policy

© Copyright 2006 FutureGen Alliance, Inc. All rights reserved. | Subscribe