

# WORC

*Western Organization of Resource Councils*

## Is there a Future for FutureGen?



*Artist rendition of proposed FutureGen site in Mattoon Township, IL*

*FutureGen Alliance  
This factsheet updated Feb 4, 2010*

The Department of Energy's FutureGen project is an initiative of the federal government to finance and construct the world's first coal-fueled zero emissions power plant in Mattoon, Illinois. For over 6 years the plant has been very controversial, and soaring costs of the project led the Bush Administration to cancel the program in 2008. Yet Illinois lawmakers and project proponents pushed for plans to revive the massive plant. And despite the fact that carbon capture and sequestration technology remains to be proven on a large scale and project costs continue to rise, taxpayer dollars continue to flow to the FutureGen project.

### **FutureGen Background**

In 2003, President Bush and the Department of Energy (DOE) announced plans to build the world's first [coal-fueled power plant](#) to produce [hydrogen](#) and [electricity](#) with near-zero emissions, called FutureGen. Using proposed [carbon capture and storage](#) techniques, it would store carbon dioxide (the main contributor to global warming) underground and enable our continued dependence on fossil fuels like coal and at the same time reduce carbon emissions into the atmosphere.

Although several potential sites for the plant were considered in Texas, Ohio, and West Virginia, ultimately Mattoon, Illinois was selected for the project location. Adding to the allure to bring a multibillion dollar plant to the state, the Illinois State Legislature passed an \$80 million tax incentive package in advance of the decision. The plant, which originally was estimated to cost \$1 billion, was to be funded primarily by the DOE and the private FutureGen Industrial Alliance. However, as market prices continued to escalate, the DOE eventually withdrew its support citing price inflation for materials and labor, and the project was suspended.

### **FutureGen Goes FutureBust:**

DOE's new proposal suggests that the government pay only for the carbon capture portion of the facility, or to support several smaller commercial carbon capture and sequestration plants across the nation due to the astronomical costs projections of the FutureGen plant. But in June 2009, Energy Secretary Steven Chu announced his support for the construction of a large-scale clean coal plant in Mattoon, Illinois in an attempt to revive the FutureGen project.

However, a March 2009 Government Accountability Office (GAO) report suggests that the decision to revive a large-scale FutureGen project is not cost-effective and DOE should pursue other options, including developing existing technologies that are more quickly implemented at existing coal plants. According to the EPA, carbon

capture and sequestration technology may not even be up and running until 2020, even with massive government subsidies.<sup>1</sup> Despite these concerns, the DOE has decided to move forward with FutureGen.<sup>2</sup>

Originally, the Administration guaranteed that FutureGen would capture 90% of emissions. Then this number was lowered to 81% in 2008, and now DOE expects it will capture 60% of emissions at completion, with the eventual goal to increase carbon capture to 90% of emissions after three years.<sup>3</sup> Even with rising costs, the performance expectations of the plant have declined.

**Back to the Future(Gen):**

Despite the cancellation of funding by the DOE, the FutureGen Alliance continues to move forward with the project. On September 1, 2009, FutureGen Alliance partners met with DOE to discuss long-term project plans and financing, and agreed to \$17.3 million cost-share Cooperative Agreement for preliminary project design through the end of 2009. The DOE will contribute \$13.9 million to the cost-share, with FutureGen providing \$3.4 million. Additionally, the FutureGen Alliance has agreed to increase private partnership from the current 9 partners to a goal of 20 private partners for future support and financing.

President Obama's 2011 budget proposal seeks nearly \$600 million for research and development of energy systems that are less carbon-intensive, but no new funding is sought for the FutureGen project. Although the Obama Administration has not given its final word on the future of FutureGen, in mid-February the DOE is expected to announce a decision about whether the project has obtained the additional funding and met the expected cost reductions.

The total estimated cost of FutureGen has risen rapidly, with the cost expected to top \$2.4 billion by the time the project is completed. Still, the federal government and taxpayers are expected to assume the majority of FutureGen's costs, investing taxpayer dollars into a large-scale, high-risk multibillion dollar initiative.<sup>4</sup>

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<sup>1</sup> Chicago Tribune. "Coal industry: FutureGen project in Mattoon, Ill. Faces uncertain future." December 20, 2009. <http://www.chicagotribune.com/business/chi-sun-outlook-power-side-mattodec20,0,5638819.story> and The Environmental Protection Agency. Testimony of Benjamin H. Grumbles Assistant Administrator for Water, U.S. Environmental Protection Agency, before the Committee on Energy and Natural Resources United States Senate. January 31, 2008. [http://www.epa.gov/ow/speeches/1-31-08\\_EPA\\_Testimony\\_SENR\\_CSS.html](http://www.epa.gov/ow/speeches/1-31-08_EPA_Testimony_SENR_CSS.html)

<sup>2</sup> U.S. Department of Energy. "Department of Energy Takes Another Step Forward on FutureGen Project in Mattoon, IL". July 14, 2009. <http://www.futuregenforillinois.com/media/FutureGenRODNewsReleases.doc>

<sup>3</sup> U.S. Department of Energy. "Record of Decision, FutureGen Project." July 14, 2009. [http://www.fossil.energy.gov/programs/powersystems/futuregen/futuregen\\_rod\\_071409.pdf](http://www.fossil.energy.gov/programs/powersystems/futuregen/futuregen_rod_071409.pdf)

<sup>4</sup> U.S. Department of Energy. "Department of Energy Takes Another Step Forward on FutureGen Project in Mattoon, IL". July 14, 2009. <http://www.futuregenforillinois.com/media/FutureGenRODNewsReleases.doc>