



ENERGY Prospects West

*Western Interconnection
Policy & Resource News*



[Home](#) | [NewsData](#) | [Archives](#)

ALSO IN THIS ISSUE



OPEN SESAME

**Not Just Generating,
But Also Meeting Load
Wind Energy Can Be
Firmed With Compressed
Air**

DOE Carbon Sequestration Pilot Set for Eastern Washington

Print-Friendly

Around the end of November, field tests will begin in eastern Washington's Columbia Basin to determine if the region's massive basalt formations hold the potential to permanently sequester millions of tons of carbon dioxide emissions.

If the project is successful, it could mean "a new paradigm for how baseload generation will be sited," according to Pete McGrail, project manager and chief scientist of Battelle's Pacific Northwest National Laboratory, which will be conducting the tests.

"If it's going to work, it's going to work here," McGrail said at an Oct. 11 Port of Walla Walla Commission meeting.

The project will take place on land owned by the Port of Walla Walla, beginning with seismic studies, borehole drilling, geochemical and hydrolic tests on the basalt formations, which at their thickest and deepest, exceed 12,000 feet.

By the end of next summer, McGrail's group will inject several thousand tons of carbon dioxide 3,000 to 4,000 feet underground over a period of two to four weeks.

Then, for the next two to three years, McGrail's team of scientists will monitor the test site, taking core samples to see if the injected gases have reacted with the rock to form a solid carbonate, effectively becoming one with the basalt.

If only 3 percent of the Pacific Northwest's 80,000 square miles of basalt is suitable for CO₂ sequestration -- a very conservative estimate, McGrail says -- that could mean permanent storage for 50 to 100 billion tons of emissions, far more than any one power plant would produce over its lifetime.

One such project, a 915-MW integrated gasification combined-cycle power plant proposed for the site by a Gig Harbor, Wash.-based consortium, has a lot riding on the pilot's outcome.

Developers of the \$2-billion Wallula Energy Resource Center -- which include United Power, Quigg Energy LLC, Edison Mission Group and Mitsubishi Heavy Industries -- aim to sequester 65 percent of the plant's carbon emissions from the start of operations, to meet the state's new regulations that prohibit development of new power plants that emit more carbon dioxide than modern natural gas-fired plants.

ENERGY JOBS PORTAL



Check out the fastest growing database of energy jobs in the market today.

- [Job Seekers](#)
- [Employers](#)

SITE TOOLS

SEARCH

[\[Advanced Search \]](#)

view by section

DOMAINS



[Indexing Energy Technology Web Sites](#)

"They'd run out of coal before we'd run out of storage," McGrail said of the planned IGCC, which will sell 760 MW of its output.

Developers of the power project are co-sponsoring the \$10-million sequestration study, along with the U.S. Department of Energy's Big Sky Carbon Sequestration Partnership.

"Walla Walla has long been ideal ground for power development," said United Power CEO Robert Divers. "Now, thanks to the research Battelle is doing for Big Sky, the area's subterranean basalt formations can be added to its list of enabling features," which include two rail lines, highway access, high-voltage transmission lines, and an industrial water supply.

This month, Divers' group asked the Washington Energy Facility Site Evaluation Council to begin a Potential Site Study for the proposed project.

The Potential Site Study is similar to the Federal Energy Regulatory Commission's pre-filing process. The developer will consult with EFSEC, other regulatory agencies and the general public to identify issues in advance of filing a formal application for a site certification with EFSEC.

The Washington siting council is already reviewing one other IGCC project, Energy Northwest's 680-MW Pacific Mountain Energy Center, proposed for Kalama, Wash.

The council is conducting a bifurcated review of the project, focusing first on the project's carbon sequestration plan. Energy Northwest plans to mitigate most of the plant's emissions, by paying to take an older, dirty power plant in the Western Interconnect offline.

In the meantime, while the carbon sequestration pilot project near Walla Walla holds promise for many, including Port officials, who feel a successful outcome could attract many carbon-based businesses to the area, it also has its skeptics.

"Whether geologic sequestration will work is a matter of great debate in the engineering community," said Marc Krasnowsky of the NW Energy Coalition. "Some scientists from the Natural Resources Defense Council are very dubious about basalt sequestration and cite a lot of studies that say it's nonsense."

But McGrail says that is precisely why his group is conducting the pilot.

"The objective of the project is to get a better idea if it will work," McGrail told *Energy Prospects West*.

- Penelope Kern

[My Account](#) | [Terms of Use](#) | [Privacy Policy](#) | [Staff](#) | [Contact Us](#) | [Archives](#)