



## FOR IMMEDIATE RELEASE

August 25, 2009

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### **CARBON-CAPTURE AND STORAGE DEMONSTRATION PROPOSED AT DOMINION'S VIRGINIA CITY HYBRID ENERGY CENTER**

- *Virginia Tech Center for Coal and Energy Research to lead initiative*
- *Federal stimulus grant sought to cover half of potential \$580 million cost*
- *High-tech facility would create jobs, tax revenues along with environmental benefits*

BLACKSBURG, Va. – A coalition led by Virginia Tech's Virginia Center for Coal and Energy Research (VCCER) has applied for federal stimulus funding to cover up to half of the estimated \$580 million cost of a carbon-capture and storage demonstration project proposed for a power station being built by Dominion (NYSE: D) in Wise County, Va.

Carbon dioxide removed from the station's air emissions at the Virginia City Hybrid Energy Center would be moved by pipeline for permanent storage in unmineable coal seams and underground saline formations in the region. A side benefit may be enhanced production of methane, the primary component of natural gas, from the coal seams.

The grant request was filed last week by the Virginia Tech Foundation on behalf of a project team that also includes Dominion subsidiary Dominion Virginia Power, The Southern States Energy Board, Marshall Miller and Associates, and others.

Dominion Virginia Power would lead the carbon-capture portion of the demonstration project. The company's 585-megawatt Virginia City power station, which is scheduled for completion in 2012, is designed to burn coal, waste coal called "gob" and biomass. It also is designed to be carbon-capture compatible, with space dedicated for carbon-capture equipment included at the site. The carbon-capture demonstration equipment is designed to remove up to 1,500 tons of carbon dioxide each day from the station's emissions.

"The Virginia City Hybrid Energy Center was designed from the start to minimize its environmental footprint," said David A. Christian, chief executive officer of Dominion Generation. "This project will be another important stride in that direction.

"Beyond that, the project will produce a multi-million-dollar benefit for the economy of Southwest Virginia by creating additional jobs at the station and generating additional state and local tax revenue."

The coalition has applied for the funding from the U.S. Department of Energy's National Energy Technology Laboratory under the federal Recovery Act's Clean Coal Power Initiative.

"This project will be a significant step forward in finding a viable means of controlling carbon emissions from power stations," said Michael J. Karmis, VCCER director and the Stonie Barker Professor of mining engineering at Virginia Tech. "We are fortunate that Virginia has an advanced power plant and suitable injection sites in close proximity."

An initial, small-scale test by Virginia Tech of carbon storage in the region's unmineable coal seams has shown promising results.

The demonstration project alone could result in enhanced coal-bed methane production of an estimated 2.5 billion cubic feet.

The project is designed to meet DOE's goals, which include proving carbon-capture and storage (or beneficial use) on a commercial scale and achieving a minimum of 50 percent carbon-capture efficiency at the lowest possible cost while working toward higher efficiency levels. The carbon-capture facility at Virginia City would account for roughly two-thirds of the demonstration project's estimated costs. It would use advanced solvents, known as amines, to remove carbon-dioxide from the power station's emissions stream and would be designed for a minimum of 90 percent carbon-capture efficiency.

In addition to Virginia Tech and Dominion, project team members include engineering and geological consultants, coal companies, gas companies, land-holding companies and railroads. Virginia Tech's VCCER and Marshall Miller and Associates, an engineering firm, would lead the carbon-storage aspect of the project.

Subject to the receipt of approval for funding as well as the necessary company and regulatory approvals for the demonstration project, construction could be completed as early as April 2015. The injection and monitoring phases of the project would run through April 2021.

Dominion is one of the nation's largest producers and transporters of energy, with a portfolio of more than 27,500 megawatts of generation, 1.1 trillion cubic feet equivalent of proved natural gas and oil reserves, 14,000 miles of natural gas transmission, gathering and storage pipeline and 6,000 miles of electric transmission lines. Dominion operates the nation's largest natural gas storage systems with 975 billion cubic feet of storage capacity and serves retail energy customers in 12 states. For more information about Dominion, visit the company's Web site at [www.dom.com](http://www.dom.com)

The Virginia Center for Coal and Energy Research was created by an Act of the Virginia General Assembly on March 30, 1977, as an interdisciplinary study, research, information and resource facility for the Commonwealth of Virginia. Its purpose is:

- Research in interdisciplinary energy and coal-related issues of interest to the Commonwealth,
- Coordination of coal and energy research at Virginia Tech,
- Dissemination of coal and energy research information and data to users in the Commonwealth,

- Examination of socio-economic implications related to energy and coal development and associated environmental impacts.