

## FACT SHEET

# Proposed Tenaska Trailblazer Energy Center

Sweetwater (Nolan County), Texas



As the United States' electricity needs grow, many civic, business and government officials have called for construction of new technologically innovative power plants that generate electricity by using abundant, inexpensive coal in ways that significantly reduce the release of emissions.

Tenaska, an experienced energy developer, is evaluating a site east of Sweetwater, Texas, at which to construct and operate the Tenaska Trailblazer Energy Center, a next-generation energy center. The Trailblazer Energy Center, fueled by low-sulfur coal, will capture carbon dioxide (CO<sub>2</sub>), considered by many to be a greenhouse gas associated with global warming, and provide for its geologic storage. No new conventional coal-fueled power plant in the United States today utilizes carbon management technology on a commercial scale.

## Electricity Production

The Trailblazer Energy Center will generate approximately 765 megawatts (MW) gross and 600 MW net, using best available supercritical, pulverized coal technology. Six hundred megawatts is enough power to meet the around-the-clock needs of approximately 600,000 homes.

## Economic Impact for Texas

If built in Texas, a leading economic consultant estimates that the Trailblazer Energy Center would:

- ▶ Generate \$742 million in local economic activity during construction;
- ▶ Boost the local economy, spending more than \$2 billion for construction out of a total estimated project cost of more than \$3 billion;
- ▶ Provide 1,500 to 2,000 jobs at peak construction; more than 100 permanent well-paying jobs; and indirectly provide an additional 71 jobs due to increased local contract services and other forms of spending;
- ▶ Increase taxable property in Nolan County by approximately 50 percent and pay millions in taxes during construction and over the 50-year life of the project.
- ▶ Help sustain enhanced oil recovery (EOR) in the Permian Basin, adding more than 10 million barrels of oil production annually to the West Texas economy and reducing dependence on foreign oil.

## Environmental Effects

Tenaska's proposed Trailblazer Energy Center will use best available technologies to meet or exceed all Texas and federal environmental standards.

It will also capture CO<sub>2</sub> and provide for its geologic storage. Eighty-five to 90 percent of the CO<sub>2</sub> produced by the Trailblazer Energy Center would be captured, dehydrated, compressed and delivered via pipeline to West Texas oil fields for use in EOR projects.

The proposed Trailblazer Energy Center will utilize an efficient supercritical steam cycle for generation, a proven technology that creates greater fuel efficiency.

Tenaska's Trailblazer Energy Center will be designed to meet the environmental standards for sulfur dioxide, nitrogen oxide and mercury removal outlined in House Bill 3732, Texas' "Advanced Clean Energy Project" legislation, passed in 2007.

## Carbon Management

Carbon dioxide is already the 19th largest commodity chemical in the United States. It is routinely separated and captured in other industrial processes, such as ammonia and hydrogen production, natural gas processing and limestone calcination. Carbon dioxide separation and capture technology have yet to be applied to new conventional coal-fueled power plants on a commercial scale, except in very small research and demonstration projects.

Texas passed its first laws related to the marketing and transportation of CO<sub>2</sub> in 1937. For more than 30 years, the Texas oil industry has been using CO<sub>2</sub> for EOR and geologic storage of the gas. In the Permian Basin today, approximately 180,000 barrels of oil per day are recovered by transporting CO<sub>2</sub> via pipeline into the region for EOR.

Additional details are available at [www.tenaskatrailblazer.com](http://www.tenaskatrailblazer.com)

## Key Facts

The proposed Tenaska Trailblazer Energy Center (765 MW gross, 600 MW net) will capture and provide for geologic storage of carbon dioxide. No new conventional coal-fueled power plant in the United States utilizes carbon management technology on a commercial scale.

## Location

The site selected for evaluation is more than 2,400 acres near Sweetwater in Nolan County, Texas.

## Schedule

Permits filed in 2008; final decision to proceed in 2010; construction start targeted for 2011; commercial operation slated for 2016.

## Carbon Management

The proposed Trailblazer Energy Center would capture, dehydrate, compress and deliver 85 to 90 percent of its carbon dioxide via pipeline to the Permian Basin for use in enhanced oil recovery and, ultimately, geologic storage.

## Use of Water Resources

The Trailblazer Energy Center will be the first coal-fueled power plant in Texas to use dry (air) cooling technology on a large scale, which significantly reduces water consumption compared to traditional wet cooling systems.

## Fuel Supply

Trains would deliver low-sulfur, sub-bituminous coal from the Powder River Basin. The plant has a coal supply agreement with Arch Coal, Inc., the second largest U.S. coal producer.

## Interconnection

The facility would connect to the Electric Reliability Council of Texas (ERCOT) power grid.

## Project Developer

Tenaska, an energy company based in Omaha, Nebraska, with a regional office in Dallas, Texas, develops, constructs, owns and operates non-utility electric generation and cogeneration plants, four of which are in Texas.

## Project Owner

The Tenaska Trailblazer Energy Center is owned by Tenaska Trailblazer Partners, LLC, comprised of affiliates of Tenaska and St. Louis-based Arch Coal, Inc.