

## COVER SHEET

**Responsible Agency:** U.S. Department of Energy

**Title:** Texas Clean Energy Project *Final* Environmental Impact Statement (DOE/EIS-0444)

**Location:** Odessa, Ector County, Texas

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### Abstract:

This *final* environmental impact statement (EIS) provides information about the potential environmental impacts associated with the U.S. Department of Energy's (DOE) proposal to provide limited financial assistance (approximately \$450 million), through a cooperative agreement, to Summit Texas Clean Energy, LLC (Summit) for the proposed Texas Clean Energy Project (TCEP). The TCEP would use coal-based integrated gasification combined-cycle technology to generate electric power and would capture carbon dioxide (CO<sub>2</sub>) for use in enhanced oil recovery (EOR) and eventual sequestration. The plant would generate 400 megawatts (gross) of electricity, of which **130–213** megawatts would be provided to the power grid. It would also produce urea, argon, and sulfuric acid for sale in commercial markets. Because of its multiple production capabilities, the plant is referred to as a polygeneration (polygen) plant. DOE would provide approximately 26 percent of the project's total capital cost of at least \$1.73 billion (2009 dollars).

The polygen plant would be built on a 600-acre (243-hectare) oil field site in Ector County, Texas, north of the oil community of Penwell. Summit would design and construct the plant to capture approximately 90 percent of its CO<sub>2</sub>. During the demonstration phase of the plant's operations, the project would sequester approximately **2.5–3.0 million tons (2.3–2.7 million metric tonnes)** of CO<sub>2</sub> per year by transporting it in pipelines to existing oil fields in the Permian Basin of West Texas for use in EOR operations by third-party buyers of the CO<sub>2</sub>. Following the demonstration phase, the polygen plant would continue in commercial operation for 30–50 years.

DOE determined that the proposed TCEP constitutes a major federal action within the meaning of the National Environmental Policy Act of 1969, as amended. The *Federal Register* "Notice of Intent

To Prepare an Environmental Impact Statement for Texas Clean Energy Project, Ector County, Texas” was published on June 2, 2010 (75 *Federal Register* 30800). DOE held a public scoping meeting at Odessa College in Odessa, Texas, on June 17, 2010. ***The Federal Register “Notice of Availability for the Draft Environmental Impact Statement for Texas Clean Energy Project, Ector County, Texas” was published on March 18, 2011 (76 Federal Register 14969). DOE published a second Notice of Availability in the Federal Register on March 22, 2011, to announce the date and location of the public hearing, which was held on April 5, 2011, in the city of Odessa, Ector County, Texas (76 Federal Register 15968). The public comment period began March 18, 2011, and ended May 2, 2011.***

This ***final*** EIS provides an evaluation of the environmental consequences that may result from Summit’s proposed project, including potential impacts on air quality and greenhouse gas emissions; climate; soils, geology, and mineral resources; ground water resources; surface water resources; biological resources; aesthetics; cultural resources; land use; socioeconomics; environmental justice; community services; utility systems; transportation; materials and waste management; human health, safety, and accidents; and noise and vibration. The ***final*** EIS also provides an analysis of the No Action Alternative, under which DOE would not provide financial assistance to the TCEP, with the assumption that without federal financial assistance, the project would not be constructed. ***DOE’s preferred alternative—to provide financial assistance to Summit’s proposed project—is identified in the final EIS.***

***In addition, the final EIS provides the comments received on the draft EIS, DOE’s prepared responses to those comments, revisions that were made in response to the comments, and changes that were made to the Proposed Action between the preparation of the draft EIS and final EIS. Vertical lines in the left margin of a page indicate where text in the draft EIS has been deleted, revised, or supplemented for this final EIS, except for Volume II, which contains the public comments on the draft EIS and DOE’s responses. This revised text in the Summary and Volume I is shown in boldface italics font (as in this paragraph).***