

Electric Generating Unit Standard Permit Technical Review

Company	Bilateral Energy LLC	Registration Number	180579
City	Granbury	Project Number	394461
County	Hood	Regulated Entity Number	RN112234695
Project Type	Standard Permit Application	Customer Reference Number	CN606398782
Project Reviewer	Briannah Spooner	Project Received Date	June 19, 2025
Site Name	Granbury OpCo 1		

Project Description

Bilateral Energy LLC (Bilateral) owns and plans to construct and operate the Granbury OpCo 1 site in Hood County, Texas. The purpose of this project is to authorize the construction of the proposed electrical generating facility which will include the operation of eight (8) simple cycle power turbines and 87 linear generators.

Each turbine is rated for approximately 114 MW and each linear generator is rated for 0.23 MW, putting the sitewide total at roughly 932 MW. Facilities and emissions authorized with this permit registration include turbine combustion, turbine startup and shutdown, linear generator combustion, turbine and generator vent and hydraulic oil, and fugitive equipment emissions.

Combustion Turbines

The main function of the CTGs is to provide shaft power to drive an electric generator. Combustion air and natural gas is fed to each combustor producing a high-velocity combustion discharge that impinges on the turbine blades to rotate the turbine shaft. The mechanical energy produced by the CTG is used to drive the electric generator and to compress inlet air.

The turbine shaft speed is monitored and used to control the fuel flow to the turbine. In turn, the fuel flow defines the turbine operating conditions. The fuel-to-air ratio is controlled by the physical dimensions of the combustor. Therefore, as the fuel demand changes, the combustion air flow changes accordingly. Normal operation of the CTG is base load, but the turbines will be capable of operating at various loads.

Emissions of NOx from the turbines will be reduced using selective catalytic reduction (SCR) controls. Oxidation catalyst may be used to reduced CO emissions. Ammonia (NH3) emissions may occur due to slip of excess ammonia from the SCR system.

Gas turbines consume oil to lubricate and cool the compressor and turbine bearings. Lube oil continuously circulates throughout the gas turbine assembly, and a supply of lube oil is maintained in a reservoir within the assembly.

Linear Generators

This registration includes 87 linear generators. These low-emission units are intended for black start capability but are also designed to operate continuously—up to 8,760 hours per year—for additional power output. Collectively, the 87 generators provide an additional 20 MW of potential capacity, bringing the facility's total sitewide rating to 932 MW.

Linear generators operate using flameless reaction of natural gas with a linear motion system that converts chemical energy directly into electricity with minimal combustion. The linear generators are capable of achieving the NOX limits of the standard permit without add-on controls (lower-emitting processes) and will bear a nameplate certification upon installation listing their NOX performance.

The turbines are subject to NSPS KKKK and will comply with all requirements of these subparts. Hood County is regulated under the Mass Emissions Cap and Trade (MECT) program. Therefore, allocations will be obtained before operation. The company has confirmed that they will obtain a Title V permit for its site and will submit an initial application before the applicable deadline in 30 TAC 122.130.

Compliance History Evaluation

A compliance history report was reviewed on:

June 23, 2025

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Site rating & classification:	N/A
Company rating & classification:	N/A

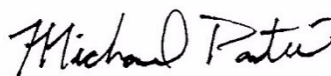
General Rules Check	Comments
Does the project trigger PSD or NA review?	* No
Is the facility taking an operational limit to meet the Standard Permit? If yes, describe how this project is not circumventing major NSR permitting. (30 TAC §116.110)	* Yes: The annual turbine emissions cap represents the maximum emissions that will occur from all of the combustion turbines installed under the standard permit during any rolling 12-month period. Bilateral will calculate the total mass emissions from each unit following each calendar month and sum it to the preceding eleven months, and then sum each of these rolling 12-month totals to arrive at a figure for comparison to the cap. The operational parameters that will be measured or calculated after construction and during operation include total fuel consumption (MMBtu/hr), or equivalently heat rate and electrical output (Btu/kWh and MWh, respectively). Additionally, for CO and NOX (the pollutants using add-on controls), Bilateral will install continuous emission monitoring systems (CEMS) to continuously measure actual emissions of these pollutants.

Standard Permit Rules Check	Comments
Type of unit being authorized	*Turbine(s)
Fees	* ≥ 1 MW \$900 Permit Fee: 771735 / 582EA000673195 Surcharge Fee: 771736 / 582EA000673195
Combined Heat and Power (if taking credit)	N/A - This application is not seeking to take credit for CHP to meet the emission standard in Subsection (4)(E).
Fuel	* Natural gas (<10 grains total sulfur per 100 dscf)
NO _x emission limitation (in lb/MWh)	* East Texas * >10 MW per unit * >300 hrs/yr – 0.14 lb/MWhr
Maintenance, Startup, and Shutdown	Maintenance activities and emissions from planned startup and shutdown will be authorized by this permit. Combustion emission factors used when developing the standard permit included enough conservatism to account for incidental increases that could occur during startup and shutdown.



July 8, 2025

Project Reviewer
Briannah Spooner



July 9, 2025

Section Manager
Michael Partee