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# Available/Emerging Technologies for Reducing Greenhouse Gas Emissions from Combustion Turbine Electric Generating Units: U.S. Environmental Protection Agency White Paper

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The United States Environmental Protection Agency (“EPA”) issued on April 21st what it describes as a “technical white paper” titled:

*Available and Emerging Technologies for Reducing Greenhouse Gas Emissions from Combustion Turbine Electric Generating Units (“White Paper”)*

The *White Paper* was prepared by the Sector Policies and Programs Division of EPA’s Office of Air Quality Planning and Standards in Research Triangle Park.

The *White Paper* describes itself as summarizing:

... readily available information on control techniques and measures with the potential to mitigate greenhouse gas (GHG) emissions from stationary combustion turbines permitted to operate as electric utility generating units (EGUs).

EPA states the impetus for this effort is the probability that gas-fired turbines will constitute a key component of United States electric generation in the future. Cited are Energy Information Administration (“EIA”) projections which indicate the power sector will likely heavily invest in both combined cycle and simple cycle turbines.

Discussion topics include EPA’s views on:

- Potential of efficiency improvements
- Potential of firing or co-firing natural gas with alternative fuels such as hydrogen
- Potential of using carbon capture, utilization, and storage technology
- Potential of co-location with energy storage

Note that EPA specifically qualifies the *White Paper* as not intending to set either policy or establish performance standards.

Key chapters include:

- Clean Air Requirements
- Combustion Turbine Technology

- CHG Emissions from Combustion Turbine EGUs
- Combustion Turbine EGU CHG Control Approaches
- Fuels Burned in Combustion Turbine EGUs and Overall CHG Considerations
- Embodied Carbon of a Combustion Turbine EGU
- Alternative to Combustion Turbines

A link to the *White Paper* can be found [here](#).