Attachment

EPA Information Request
Invenergy Thermal Development LLC – Ector County Energy Center
Application for Greenhouse Gas Prevention of Significant Deterioration Permit

1. Please provide a copy of the State/PSD/Nonattainment application that was submitted to TCEQ.

2. The permit application discusses the use of an evaporative cooling system. Please specify if this is a wet or dry evaporative cooling system. Please provide a specific evaluation of the commercial systems available for cooling of inlet air to a combustion turbine and discuss and provide a justification for the cooling system selected.

3. Please include a discussion of the natural gas line and electrical transmission infrastructure in proximity to the ECEC. Will new natural gas lines or electrical transmission lines need to be constructed as a part of this project. Please provide a map of any new pipelines and electrical transmission lines.

4. The permit application indicates that Natural Gas-Fired Dew-Point Heater emissions are calculated using the emission factors (kg/MMBtu) for natural gas. Please provide additional information on the manufacturer, capacity and efficiency of the natural gas-fired dew-point heater.

5. The permit application includes a list of two simple cycle combustion turbines that are currently being evaluated and considered for this project. Please provide supplemental data that includes the percent efficiency of each model currently being considered (this information may be represented graphically in load/efficiency curves). Please discuss what the typical operational load for the combustion turbines (ie. 25% or 75% load).

6. Have you considered a combined cycle combustion turbine for this project? Please include a discussion why a combined cycle turbine is not considered BACT. The permit application states that the peaker plant must be able to shut down quickly and be able to restart in response to electrical demand. How many startups and shutdowns are anticipated for the proposed ECEC project? Also, include the rationale for the number of proposed startup and shutdowns. Please specify if these are cold or hot standby startups. Please discuss the start up times for each of the combustion turbines being considered in the permit application.

7. The permit application, states that for burner maintenance "there are three basic maintenance levels: combustion inspections, hot gas path inspections and major overhauls." Please provide supplemental details about each maintenance level such as what it involves and how often, monitoring and recordkeeping requirements will be required. How will you monitor the efficiency of the combustion turbines?

8. Please discuss the concentration of CO_2 in the flue gas stream at various proposed operating levels. Please discuss all operating ranges for the combustion turbines being considered in the permit application.

9. Please discuss why a portable gas analyzer for methane is not considered BACT for fugitive emissions. Please provide supplemental information for implementing inspections for fugitive emissions such as how often inspections will be conducted and how the monitoring records will be maintained by the facility.

10. Emission point numbers (EPNs) for the fugitive emission, SF_6 circuit breaker, the diesel-fuel fire water pump engine and the natural gas-fired dew-point heater are provided in the application. Please supplement the process flow diagram with the representation of the GHG sources and associated EPNs. Please discuss in detail the EPN's identified as LOV-1 and LOV-2 in the area map.

11. Please indicate what the total capacity of the circuit breakers associated with the proposed plant will be for the SF_6 electrical insulation system with leak detection. This discussion should discuss how many circuit breakers are being proposed and discuss the quantity of SF_6 insulating gas per unit.