

ACTION TEAM PROGRESS REPORT

Integrated Gasification Combined Cycle (IGCC) Initiative

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Team Membership: OAR/Office of Atmospheric Programs; Office of Research and Development; Office of General Counsel

Environmental Problem: Cleaner, more efficient means of generating base-load electricity from coal

Technology Challenges: Reliable, online electricity generation from multiple coal types; synthetic gas clean-up; and, capture/sequestration of carbon dioxide (CO₂)

FY'06 Accomplishments:

- Release of joint EPA/DOE report “*Environmental Footprints and Costs of Coal-Based Integrated Gasification Combined Cycle and Pulverized Coal Technologies*” (EPA-430/R-06-006, July 2006);
- Guidance Memo on defining IGCC as Best Available Control Technology, (December 2005);
- Co-sponsorship of study with DOE, DOD and other interested stakeholders on “The Business Case for Coal Gasification with Co-Production;”
- Initiation of work group on advanced coal technology under the Subcommittee on Regulatory Innovation and Economic Incentives of the Clean Air Act Advisory Committee;
- Initiation of work with NACEPT to explore non-regulatory opportunities for EPA to encourage the adoption and deployment of advanced coal technologies.

FY'07 Objectives: Continue collaboration with DOE's Fossil Energy office on co-production opportunities; continue to work with the Advanced Coal Technology work group and NACEPT on advanced coal technologies; continue work with States and industrial stakeholders to provide permitting and technical assistance (as needed) in connection with the deployment of IGCC technology in the coal-fired electricity generation markets

Issues: Sulfur removal from synthetic gas upstream of the combined cycle turbine; online/availability of single-train gasifiers for low-rank coals; overcoming the increased capital cost of IGCC versus traditional/conventional pulverized coal.