

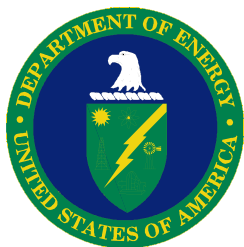
# U.S. Activities

## APP Cleaner Fossil Energy Task Force



**Scott M. Smouse**  
**Senior International Manager**  
**National Energy Technology Laboratory**  
**Office of Fossil Energy**  
**U.S. Department of Energy**

**APP CFE Task Force Meeting**  
**Seoul, Korea**  
**31 March – 1 April 2009**





# NETL-KIER Cooperation (CFE-07-16)

- **Signed September 2007, restarting previous ~20-year cooperation**
- **Areas of Cooperation**
  - **CO<sub>2</sub> Capture Sorbents**
    - KIER tests completed using NETL protocol
    - NETL will test KIER carrier; data and process designs will be shared
  - **Coal to Liquids**
    - Proposed joint tests on new FT catalysts in KIER 10-15 BDL/day prototype
  - **Aqueous Ammonia Scrubbing**
    - NETL to test additive, collaborate on modeling and analysis
  - **Hydrogen Separation**
    - Porous membranes, PSA sorbents, hybrid approach to produce pure H<sub>2</sub> from impure gases >600°C
  - **Gasification**
    - Scale-up of entrained gasification: experiment & simulation
  - **Chemical Looping**
    - Test KIER carrier, compare designs



# **NETL-KIER Cooperation (CFE-07-16)**

- **4 webinars held – Nov. 2007; Jan. 2008; March 2008; Dec. 2008**
- **NETL/KIER joint manuscript on CO<sub>2</sub> sorbents for publication in International Journal of Greenhouse Gas Control currently in internal review**
- **NETL to host joint workshop 22-23 September 2009, in Pittsburgh, PA, in conjunction with 2009 Pittsburgh Coal Conference, 21-24 September 2009**
  - **Discuss ongoing cooperative activities and possible new activities**