Status Update
for the Proposed
Indiana Center for Advanced Energy Technologies (I-CAET)

August 16, 2011

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What is I-CAET?

- Collaborative public, private, academic effort
- Headquartered in Southwest Indiana
- Focused on innovation and education for the commercialization and deployment of advanced energy technologies
- Special emphasis on opportunities afforded by and around the Illinois Coal Basin
Background

- Intersection of two parallel strategic assessment and planning activities
- CCTR developed a significant research-based portfolio of potential projects and initiatives
- Southwest Indiana prepared extensive gap analysis, and roadmap around four primary energy strategies
  - Advanced Coal Technologies, Energy Manufacturing, Workforce Development, and Energy Efficiency
The I-CAET Proposal Team

- Lead: The Center for Coal Technology Research
- Vincennes University
- Purdue University Energy Center at Discovery Park,
- Industry consortium
  - led by Vectren Corporation and Triad Coal Company
- Government officials, and academic collaborators
- Represents both the CCTR network and the SW-IN Working Group that provided guidance for the regional strategy *Growing a Regional Energy Employment Network*
Objectives I

- Develop/deploy technologies and processes enhancing long-term viability of the Illinois Basin energy sector
  - Maintain relatively low and stable energy prices for Indiana and Midwest industries
  - Maintain and grow the coal related value chain across the Illinois Coal Basin
  - Increase skilled jobs and build the energy-related innovation base in Southwest Indiana, Southeast Illinois, and Western Kentucky
Objectives II

- Concentrate on innovation, translational programs, and education, with an emphasis on Applied Research and Development
  - Prototype, pilot and commercial scale demonstration
  - Industry support activities
  - Technical and engineering talent enhancement and creation
I-CAET Focus: Applied R&D and Education/Training

- Target urgent near-term challenges facing power generation and coal mining

- Initial power generation activities
  - Accelerate deployment of advanced technologies within the existing power generation fleet
  - Preparation of the required talent pipeline /upgrades

- The initial coal mining related activity
  - On-the-Job Training (OJT) for prospective coal mine employees, and
  - Coal ash utilization for enhanced coal recovery.
Indiana Center for Advanced Energy Technologies

Objectives
- CCTR Tech Application Entity
- Technology Demonstration
- Applied Training Programs
- Project GREEN Legacy Support
- Graduate Research
- Commercialization / Business

Development Concentration

Initial Supporters
- CCTR / Purdue Energy Ctr (lead)
- Vincennes Univ.
- Vectren/ Triad Coal
- Other Private / Public

Project GREEN
1) Energy Manufacturing
2) Energy Efficiency
3) Workforce Development
4) Advanced Coal

Launch Phase:
1. Innovative Mining
   - Miner Training
   - Adv Mining R&D
2. Advanced Power Systems
   - Existing Plants
   - Beneficial Re-Uses
3. Advanced Energy Technologies
   - New Technologies
   - Commercialization
   - Education Collaborative

Funding: DOE, Private Endowment, Public Support, Self-Generated
Where Are We?

- Concept previously vetted by Marty Irwin (CCTR) with key DOE leadership
- Draft Proposal near completion
- DC meetings to discuss draft planned for Week of August 22
- Target is to seek feedback and make revisions for acceptance on DOE’s short list of potential initial projects in the Clean Coal R&D budget beginning October 2011.