

### **Focus Area 1 – Mine Safety and Productivity**

- Training innovations to improve and link safety and productivity. Orientation programs for new miners. High tec maintenance.
- Mine communication systems designed to enhance efficiency.
- Technology to locate and identify geological and manmade problems.
- Multiple-seam mining technology.
- Methane recovery.
- Cost-effectiveness is an integral component for each of these issues.

### **Focus Area 2 – Coal Beneficiation**

- Determine the effects of beneficiation on trace elements, including mercury, disposition in coal cleaning plant refuse and power plant ash.
- Determine the fuel-related costs of operation and maintenance of PA's coal-fired power plants.
- Develop new technologies for beneficiation, dewatering and reconstitution of fine size coal.
- Develop effective clay removable technology for beneficiation and waste disposal.
- Develop improved technology for controlling dust **cleaning (I'm not sure if this is the right word)** processing, storage and transportation.

### **Focus Area 3 – Environmental Issues**

- Improved methods of predicting effects of mining maximizing resource recovery.
- Develop better, cheaper methods to remediate effects of mining.
- Enhance remining techniques to reclaim coal.
- CO2 sequestration.

### **Focus Area 4 – Political and Economic Issues**

- There is a need for industrial and academic alliances and partnerships. HB658 is not a pure coal play: aggregates, coal, oil, gas, environmental are all involved. We should focus on coal regarding the IOF program.
- Need to look at what the State of Illinois is doing and how they are accomplishing their goals.
- IOF: Improve competitive position of PA coal.
  - Energy savings
  - Fossil
  - Energy infrastructure
- Characterize coal relative to:
  - Sustainable development
  - Coal as heat/electricity
- We must be able to measure our results. That is, have accountability for dollars invested in all IOF activities:
  - Research dollars
  - Projects
  - Jobs
  - Savings to PA
  - Outside investment
  - Mining residue commercialization
    - Sites
    - Water
    - Etc.

### **Draft Vision Statement**

- Coal mining is sustainable.
- Coal is mined in a safe, efficient, economic and environmentally sound manner.
- Mine site provides for the maximum protection of the workforce's health and safety.
- Coal is a major component to economic growth and coal-fired electricity is the linchpin of PA's economy.
- Coal is the predominant source of electricity and utilities are able to burn coal at competitive rates while complying with air quality mandates.

- Coal is moved from the mine to the prep plant to the end-user in a safe, efficient and environmentally sound manner.
- Public understands coal's link to electricity. Further, society understands and accepts the cost/benefit relationship associated with coal usage.
- New applications of or uses for coal are discovered.