Coal, Policy, and the Future

The vast majority of coal, over 90%, is used to generate electricity. Coal is the most plentiful of the fossil fuels, and the U.S. has reserves to last many years at current usage levels. Future oil and gas scarcity will mean that we will feel pressure to substitute other energy sources. If we turn to coal, we will exhaust that supply much more quickly, and we will devastate the planet.

Coal is inefficient, dirty, and one of the main causes of global warming. Coal policy, then, needs to be directed at these problems. There are several possible directions:

1. Resist the pressure to increase coal use unless and until its problems are solved. Conservation and increased efficiency are the easiest, most cost effective ways to mitigate coal's problems.

2. Make coal cleaner and more efficient.

- One policy direction could be to support research to improve and disseminate available new coal-using processes, like IGCC and CCS (see White Paper 18).
- A second policy direction could be to support research into completely new methods of extracting energy from coal, such as biotechnological methods. Such possibilities seem far-fetched, but so did many innovations when they were first conceived. We will need to be creative in providing for our energy future.
- Leadership on research will need to come from the federal level, but Missouri has significant research capabilities, and can create policies at the state level as well.

3. Provide incentives to adopt cleaner, more efficient coal.

- Older power plants are dirtier and less efficient than newer ones, but continue in operation because of the cost of replacing them. Replacing these with even current technology would improve energy efficiency and reduce pollution. A package of economic and non-economic incentives to encourage conversion could be considered.
- Incentives could take many forms:
    - An outright ban on the most inefficient and polluting technologies;
    - A requirement that all new plants incorporate the best new technology;
    - A tax or fee targeted at emitted pollutants, including carbon;
    - Tax credits or deductions for plant upgrades;
    - A cap-and-trade system covering a variety of emissions. The following white paper will briefly discuss cap-and-trade vs. a carbon tax.

One doesn't have to read these coal white papers very hard, or the ones on oil, to see that energy is going to be more expensive in the future than it is now. No matter which way we turn, hardship is coming. But how will it occur? Will we let scarcity and market pressure control our energy use? Or will we start putting the external costs of coal into the cost of electricity, driving down usage and spurring investment in alternatives? If we do so, we will face difficulties, no doubt. But they are almost sure to be less than the difficulties we will face if we roast and poison the planet, which is what we're doing now.