Chairman Moberly, members of the Committee, I appreciate this opportunity to appear before you for the third time this year concerning energy policy matters. As you know, the Council is a nonprofit environmental advocacy organization providing legal and technical assistance to low-income individuals, communities, and community groups concerning natural resources and energy issues. Since 1984, we have provided environmental policy, legal and strategic assistance to groups, focusing on representation of those who cannot afford representation. My perspective is tinged by the fact that I represent those who live downhill, downwind, and downstream – those who most feel the brunt of energy policy decisions that don’t fully account for the “footprint” of the energy source – the impact of extraction, beneficiation, and utilization of energy sources and disposal of resulting wastes and management of emissions or discharges.

On February 13 of this year I appeared before you with House Majority Floor Leader Adkins and UK President Lee Todd, and endorsed the House Committee Substitute to House Bill 5. I did so because at my request the sponsor significantly increased the availability of incentives for renewable energy and lowered the thresholds for eligibility. The opportunity to secure the incentives for expanded deployment of renewables provided in the committee substitute was an investment on behalf of our environment and on behalf of Kentucky’s electric power ratepayers. In my comments, I made two other points.

First, I noted KRC’s concerns about the environmental impacts of coal-to-liquid processes, while acknowledging that attracting to Kentucky more of the research and development (R&D) that is ongoing in this area would be advisable. KRC stressed that the full life cycle costs of all of our energy choices needed to be analyzed and accounted for in our policy and investment decisions.
The second was climate change. I noted earlier this year that there were significant uncertainties in what form the inevitable carbon mandate will take, and in looking at any energy path, the ability to capture and sequester carbon dioxide and to minimize other pollutants over the life cycle of a fuel will drive our energy choices. In the intervening months, there has been continued movement and growing consensus towards a national policy response to climate change and specifically, towards a mandatory program of controls on emissions of greenhouse gases from fossil fuel utilization. Just as the overwhelming weight of the scientific community acknowledges that climate change is occurring and that the increase in concentration of carbon and other greenhouse gases is responsible for that trend, there is growing consensus in the business community and government on the need to reduce greenhouse gases in order to minimize the coming consequences of warming that will follow emissions already released into our atmosphere. Investment in R&D for large-scale demonstration of carbon capture and sequestration (CCS) as part of a larger, balanced portfolio of investments in renewable energy and energy efficiency, is, as I testified before you on June 27, a more prudent course than underwriting the commercial deployment of the gasification or coal to liquid technology that provides neither efficiency nor a carbon solution.

Last week, I testified before the Special Subcommittee on Energy, and outlined the principles that KRC believes should inform any energy policy for our Commonwealth. These are, the yardstick against which KRC believes that our progress should be measured. In sum:

1. Incentives for alternative fuel facilities should be restricted to technologies that result in net reductions of atmospheric carbon loading over baseline over the life cycle of the fuel. As a condition of financial incentives, a comprehensive life-cycle analysis of environmental impact and risk, a business plan with feasibility study, and a comparative assessment of alternative investment strategies that would yield comparable production of energy or reduction of demand.

No project for coal gasification or liquefaction should be supported absent a realistic business plan demonstrating economic viability under a range of assumptions concerning costs of production, of carbon capture and management, and of natural gas market conditions. Certainly the financial markets and institutional end-users (including the Air Force) will demand a business plan that includes management of carbon and an improvement over baseline by not merely achieving carbon neutrality, but reductions over baseline.

2. Significant funding increases for comprehensive investigation into various strategies for carbon capture and management, including tertiary recovery, conversion of waste CO2 to methanol, and permanent sequestration to the Center for Applied Energy Research and Kentucky Geological Survey. The fate, interaction, and transport of CO2 used for tertiary recovery and sequestered carbon dioxide, is an area where formation-specific and statewide research is needed.
3. A multi-stakeholder advisory group should be empanelled to explore the many legal and regulatory issuers associated with use of CO2 for tertiary recovery and for sequestration. Issues of ownership of the pore space, of the various mineral and surface interests, of groundwater and its use, of ownership of the formation and the right to sequester, of long-term monitoring, ownership and liability, and of how best to protect public and private interests from liability and unknowns related to sequestered carbon dioxide – all need thorough vetting with involvement from mineral and surface owners.

4. Comparable investment in research and demonstration of renewables and energy efficiency for all sectors, including partnerships with business and industry to develop a strategic plan in order to position our economy and our manufacturing base to accommodate and flourish in a carbon-constrained world. The ability and timing of the maturation of hybrid, fuel cell, and other technologies is not static, but is instead directly tied to the investment of funds and brainpower into addressing technical obstacles. Dollar for dollar, investment in coal-related research should be matched with investment in energy efficiency and deployment of renewables.

5. A strategy to jumpstart the development of a balanced portfolio of state and local investment in renewable energy and energy efficiency, as a hedge against the coming carbon mandate and as a way of mining the tremendous inefficiency in how we currently utilize energy.

6. An accurate inventory of greenhouse gas emissions is needed.

7. Utility regulatory policy must be revised to require full-cost accounting in planning, and an alignment of consumer interests with that of producers through demand-side management and efficiency improvements.

8. From this day forward, the General Assembly should send a clear message that no new electric generation plant proposing to utilize a carbon-based fuel will be able to pass along the costs of a later retrofitting or modification to install carbon capture equipment. Enough is known about the impending carbon mandate that any prudent utility will deploy all cost-effective efficiency measures to delay new generating capacity construction until after the goals and timeframe of the carbon mandate becomes clearer. Shareholders rather than ratepayers should bear the future add-on costs of a failure to utilize carbon capture and management as an integral component of new capacity construction.

Against this backdrop, KRC has reviewed House Bill 1, the proposed legislation agreed upon by House and Senate negotiators for introduction in the 2007 Second Extraordinary Session.

In many respects, the bill falls short of the optimum energy policy –
* It does not provide for investment in renewables and energy efficiency comparable to the incentives available to coal-based energy or fuels;

* It establishes minimum capital investment and electricity output requirements that will constrain deployment of renewable energy. Unlike coal gasification and CTL projects, investments in renewable energy are not as capital intensive relative to the energy created for use or sale. KRC suggested differential thresholds as follows:

  - For hydro, lower the Minimum Capital Investment to $50,000 and 25 kW of electricity for sale. The greatest potential for new power is at existing large and small dams.

  - For biomass, establish the same minimum threshold ($50,000 / 25 kw generated for sale) for facilities converting biomass to electricity at the same location as the generation of the biomass, leaving the $1 million minimum in place for other biomass facilities. This could capture farms using manure for methane generation, sawmills using co-generation for waste sawdust. The potential for electricity generation from biomass can range from small to large. Some sawmills have considered adding generators driven with biomass (sawdust) in order to utilize waste sawdust.

  For solar power, establish a minimum threshold of $50,000 and 25 kW for sale.

  Additionally, for photovoltaic systems only, provide a 30% credit against income tax. The reason for this is that unlike other renewable energy systems, the payback on a PV system is much longer.

  Unfortunately, those provisions were not accepted by the working group.

* It does not require a business plan and feasibility study in all cases for projects seeking KEDFA approval.

While KRC believes that the incentives that are made available for coal- and biomass-based alternative fuel facilities are not matched by a comparable commitment to renewable energy and to improvements in energy efficiency, and that lowering the minimum capital investment and energy output levels would encourage greater deployment of renewables for residential, commercial and small-scale industrial applications, there are aspects of the bill that merit support.

While the incentive provisions are lopsided, the provisions of Sections 50, 51, 52 and 55 are a positive step towards a more balanced portfolio of energy sources and greater energy efficiency, as well as a recognition by the General Assembly of the need for full-cost accounting in our strategies for addressing energy demand, and the importance of proactively addressing climate change through reductions in carbon loading into the atmosphere.
Section 50 of the Act directs the Public Service Commission to make recommendations to the LRC by July 1, 2008 concerning actions needed to:

- eliminate impediments to requiring utilities to adopt demand management strategies prior to Commission consideration of any proposal to increase generating capacity,

- encourage diversification of energy portfolios through use of renewables and distributed generation;

- incorporate full-cost accounting that considers life-cycle energy, economic, health and environmental costs of various strategies for meeting future energy demand; and

- modify rate structures and cost recovery to better align utility interests with consumer interests in efficiency and lowest life-cycle costs.

Section 51 requests LRC staff to report on energy efficiency building and construction practices, including review of current building practices, and a study on improving tax incentives to encourage improvements in energy efficient building methods and components. The study is to be completed by November 2008.

Section 52 recognizes the importance of “proactively addressing the issue of carbon management in existing coal-fired power plants and carbon emissions in general.” The Act directs an interagency report by November 20, 2007 regarding current research on carbon management, the types of incentives or government support that would help develop technologies to reduce carbon emissions at existing coal-fired power plants and from other sources, and a range of other issues associated with carbon management.

KRC also supports the establishment of the Center for Renewable Energy Research and Environmental Stewardship in Section 55 and the student loan forgiveness program.

KRC has identified several technical issues that have been raised with staff and we understand are being addressed to prevent applicant from “gaming” the approval process. I would like to raise several policy issues with the Committee in closing.

First, KRC believes that incentives for alternative fuel facilities should be limited to technologies that result in net reductions of atmospheric carbon loading over baseline over the life cycle of the fuel, and that as a condition of financial incentives, a comprehensive life-cycle analysis of environmental impact and risk, a business plan with feasibility study, and a comparative assessment of alternative investment strategies that would yield comparable production of energy or reduction of demand. No project for coal gasification or liquefaction should be supported absent a realistic business plan demonstrating economic viability under a range of assumptions concerning costs of production, of carbon capture and management, and of natural gas market conditions. Certainly the financial markets and institutional end-users (including the Air Force) will demand a business plan that includes management of carbon and an improvement over
baseline by not merely achieving carbon neutrality, but reductions over baseline. We should do no less.

The use of the phrase “Carbon capture ready” adds nothing to the bill, since any facility can be retrofitted to capture carbon; the question is (a) cost and (b) what the project will do with the Co2. Absent a business plan including a strategy for actually capturing and managing carbon, the facility will potentially become an albatross that will come back to the state for more incentives once they are required to upgrade to meet the mandate.

Second, the potential impact of loss of severance tax proceeds for non-host counties needs further analysis. What happens to the revenues of County A where the coal is mined there but transported to County B where the facility is located. Theoretically, the loss of a proportionate share of severance proceeds is offset for County B by increased tax base, but for County A, they are paid less than would be the case were the coal mined at a later time with full assessment and reimbursement. How will they be made whole?

Third, a business plan and a feasibility study should be required rather than merely asking for any that have been done. The history of the project principals’ involvement in other such projects, and their environmental compliance record, should also be required to be disclosed. As Mr. Bartis from Rand testified, who is proposing the project, and their expertise, is extremely important.

Fourth, and as a matter of budgetary priority in the 2008 Session, the depth of expertise within KEDFA should be expanded, since the agency is charged with review and approval of these projects, yet the Secretary for the Cabinet for Economic Development stated in a letter to Governor Fletcher on June 20, 2007 that

**neither the staff at CED nor the KEDFA board members have the expertise needed for the analysis of these projects.** There will need to be analysis of environmental impact, both general and resident-specific. The agency or body that considers these projects will need to have the expertise to balance potential state investment to potential benefit while including in that analysis any environmental risk. That expertise does not currently exist within CED. The current programs do not require environmental analysis as that has not previously been an issue to there is no clear statutory authorization to obtain the information required for that purpose.

If the authority is going to engage an outside consultant, there need to be strict conflict of interest provisions and legislative review of the consultant. Additionally, even with use of a consultant, the expertise of the KEDFA would need to be expanded since it is constitutionally inappropriate to delegate to any nongovernmental entity the decision making power for expenditure or commitment of public monies to a private project.

Related to that, nothing in the bill requires KEDFA to solicit public or interagency comments from state, federal or local agencies with jurisdiction, including resource and
regulatory agencies and the PSC, regarding the merits of a project. Full interagency review of any request for incentives should be required and the proposal vetted thoroughly before any commitment.

Finally, the criteria for access to KSTC funding is much more rigorous than that for KEDFA incentives. For the former, a technical research and commercialization plan, and detailed financial analysis is required, as well as a dollar-for-dollar match. None of these are required for KEDFA funding under the bill.

In closing, Mr. Chairman and Committee members, in my 29 years of appearing before the General Assembly, I have never seen the perfect bill, and that record is intact today. There are aspects of the bill that I would like to see strengthened, and incentives for coal gasification and coal-to-liquids that were not in House Bill 5 with which I take issue. Whether the bill, on balance, deserves support is a call that is yours. There are, in Sections 50, 51, 52 and 55, as well as in the relatively modest incentives for large-scale renewables and the financial incentives for energy efficiency projects, very positive aspects of the bill that are deserving of support.

This is the first, but certainly not the last chapter in the discussion of energy policy. We have reached an historic and important point where all Kentuckians are becoming aware of what those who live downhill and downstream of coal mining have long known – that cheap power has come at a significant environmental cost and the bill has been underwritten at dear cost by those least able to afford it. This bill reflects in a graphic way where we are as a people – standing with one foot in the past where adding value to coal was a preeminent public policy concern, and the other in a carbon constrained future where full-cost accounting will lead inexorably to energy choices less damaging to the land, air and water of our Commonwealth.

Thank you.