

# KFTC Response to Governor Beshear's Energy Plan

## I. Background

For decades, Kentucky's energy policy has been aimed at subsidizing and propping up the coal industry. In 2006 alone, state subsidies for the coal industry reached \$97.4. Among other outcomes, these policies produced artificially low rates for electricity, which has led to waste and inefficiency in our residential, commercial and industrial sectors. Today Kentuckians consume 70% more electricity per person than the national average.

In recent years, concern over global warming and the rising costs of fossil fuels spurred many states to adopt comprehensive new policies to promote energy efficiency and the development and use of clean, renewable energy sources. Kentucky's political leadership has moved slowly to support such measures, and small steps taken to promote clean energy sources have been matched by outsized new subsidies for the coal industry.

In the summer of 2008, when gasoline prices spiked to \$4 a gallon and other energy costs rose dramatically, the energy crisis in Kentucky and the nation suddenly became vividly real to citizens, governments, and businesses alike. There was a new realization about the linkages between economy, energy and environment. Even those who had dismissed the idea of climate change and other environmental effects of fossil fuel energy dependence had to admit that energy is a major issue. All of these events clearly indicate that Kentucky needs to have a comprehensive plan for energy.

In November of 2008 Governor Steve Beshear issued his draft for a comprehensive plan for energy in Kentucky. The Governor issued *Intelligent Energy Choices for Kentucky's Future* along with a request for input from Kentucky citizens. The entire plan can be found at <http://www.eec.ky.gov>.

The following document is intended to assist KFTC members and other members of the public in providing feedback on the Governor's energy plan. One opportunity to do so is on January 29, 2009 from 6-9 pm. The Kentucky Environmental Quality Commission plans to hold hearings in five locations around the state to hear from the public about environmental concerns, including mountaintop removal mining and the governor's energy plan. More information about these meetings can be found at <http://www.eqc.ky.gov>.

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## II. KFTC's position on energy policy

KFTC is working to develop our own plan for retooling Kentucky's energy policies to promote job creation, environmental protection, and affordable access. We have developed the following principles to develop our plan and evaluate the contents of the governor's energy proposal.

### **We believe a sound energy policy should:**

- Reduce Kentucky's dependence on fossil fuels by increasing the share of Kentucky's energy mix that comes from energy efficiency and clean, renewable sources.
- Reduce harm to our health, communities and climate caused by energy production and use.
- Seize the potential for creating jobs and opportunities in every Kentucky community through energy efficiency and renewable energy.
- Mitigate the impacts of rising energy prices on Kentuckians by providing resources for energy efficiency, renewable energy and direct assistance with bills.
- Help coal producing communities and workers transition to a more diverse and stable economy as Kentucky and the nation move away from fossil fuels.

**Based on these principles, KFTC members have identified four goals for energy legislation in the General Assembly that resumes on February 3, 2009.** These include:

- Give all Kentuckians – including low-income homeowners and renters - access to information, energy audits and financial help to weatherize their homes.
- Support training programs to enable unemployed and under-employed Kentuckians to get jobs retrofitting homes and installing clean energy systems.
- Require utility companies to produce an increasing share of their energy from clean renewable sources (this is called a renewable portfolio standard).
- Oppose proposals that continue to promote destructive forms of energy.

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### III. Overview of the Governor's Energy Plan and KFTC Perspective

In this plan, the Governor identifies seven key strategies that he claims will move Kentucky forward towards a secure energy future. These seven strategies are summarized below:

**Strategy 1: Improve the Energy Efficiency of Kentucky's Homes, Buildings, Industries, and Transportation Fleet.** Goal: Energy Efficiency will offset 18% of KY's projected 2025 energy demand.

What the plan says—

The plan assumes that statewide demand for electricity will grow about 45% by 2025. Based on this assumption, the Governor recommends energy efficiency investments to offset 60% of projected growth. He aims to do this by investing in education and outreach programs that increase consumer efficiency, alternative transportation fuels such as corn ethanol, improved efficiency within state government buildings and an Energy Efficiency Resource Standard (EERS). The EERS standard would create the largest portion of projected energy efficiency savings. It would require Kentucky utilities to reduce growth in energy demand by a set amount solely through efficiency improvements. The EERS comprises one part of the recommended statewide Renewable and Efficiency Portfolio Standard (REPS), which aims to gain 25% energy savings statewide through renewable sources and improved efficiency by 2025. The Governor refers to this goal as "25 by '25."

KFTC perspective on this part of the plan—

Energy efficiency is Kentucky's smartest energy investment, costing only 3 cents per kilowatt-hour saved. Funding and program recommendations in the Governor's plan are not ambitious enough to tap the enormous potential of state savings in this area. Several states have eliminated their projected growth in demand completely through sustained efforts to improve energy efficiency. Kentucky must not only invest in programs aimed at improving efficiency in public buildings or utilities, but should also provide direct assistance to families for weatherizing homes and apartments. The plan fails to recommend any such assistance programs aimed at helping low-income Kentuckians, who are most vulnerable to the demands of rising energy costs.

**Strategy 2: Increase Kentucky's Use of Renewable Energy.** Goal: By 2025 Kentucky's renewable generation will triple to provide 1,000 Megawatts of clean energy.

What the plan says—

Strategy 2 comprises the second part of the proposed statewide Renewable and Efficiency Portfolio Standard (REPS). Under this strategy, energy generation from clean renewable sources would be tripled. Without mentioning specific programs, it recommends providing as much incentive "as necessary" to meet the REPS "25 by '25" goal through increased use of hydroelectric, landfill gas, biomass, solar and wind energy. Newly built or substantially renovated public buildings going forward would also be required to meet a specified portion of total energy from renewable sources. The Public Service Commission would be asked to improve statewide interconnection guidelines. Improved interconnection standards allow consumers who generate electricity from renewable sources in their homes and businesses to sell

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excess energy to the local utility company. Long-term, the state would continue expanding renewable investments as capacity for clean energy production increases.

KFTC perspective on this part of the plan—

Less than 3% (300MW of 17,500) of electricity is generated by renewable sources in Kentucky today. The Governor 's plan seeks to add an additional 600 megawatts of renewable energy while at the same time adding over 10 times that in fossil fuel based energy. The plan grossly underestimates Kentucky's capacity to generate clean renewable energy and provides little support for research and development. The plan deems that most renewable energy sources are too expensive to warrant investment except "as necessary" to meet the REPS goal.

Plan goals for clean renewable energy generation are simply not bold enough to keep Kentucky's economy competitive in the 21<sup>st</sup> century, especially compared to other states' existing plans. It does not project substantial energy production from renewable sources besides hydroelectric power because it only defines industrial-scale projects as viable. Yet, Kentucky communities can generate loads of power through community and small-scale renewable wind and solar projects.

**Strategy 3: Sustainably Grow Kentucky's Production of Biofuels (integrate Kentucky's agricultural economy and the energy industry)** Goal: By 2025 Kentucky will develop 12% of motor fuels from biofuels (775,000 million gallons per year) or 20% of Kentucky's energy.

What the plan says—

"Biofuel" refers to ethanol from materials such as switchgrass and corn, as well as vegetable oil and algae-based biodiesels. Planned investments would come from state and federal funds. The state would also establish a renewable fuel standard for state vehicles to help meet this goal. Strategy 3 is the final component of the proposed statewide Renewable and Efficiency Portfolio Standard (REPS).

KFTC perspective on this part of the plan—

The possibility of curbing projected fuel demand growth is not considered in this plan. It can be achieved, however, through policies that mandate increased consumer vehicle fuel efficiency, through programs that incentivize carpooling and bicycling, and through investments into public transportation. The plan does not adequately assess the negative environmental impacts that increased biofuel production from water and land-intensive crops such as corn will have. Further, it relies upon carbon capture and storage (CCS), a highly problematic technology, to limit emissions that result from algae biofuel production.

**Strategy 4: Develop a Coal-to-Liquids Industry in Kentucky to Replace Petroleum-Based Liquids.** Goal: Ky will develop CTL industry that will use 50 million gallons of coal per year to produce 4 billion gallons of liquid fuel per by 2025.

What the plan says—

In order to reach the Governor's stated goal, millions of dollars would continue to be funneled to CTL research and development, economic incentives including loans, grants and tax breaks to

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companies investing in CTL plants would be continued to ensure industry development, and state laws would be changed to remove “risk barriers” currently in place to protect Commonwealth citizens. The Governor believes these steps are necessary despite many obvious downsides due to the “undeniable advantages of supporting the industry.”

KFTC perspective on this part of the plan—

Reaching the proposed goal would mean a **43%** increase over today's coal mining levels—and a return to 1990's all-time high level of state coal production.

115.2 million tons of coal is mined from Kentucky's mountains today. Mountaintop removal and valley fill practices would expand, obliterating vast parts of Kentucky's already struggling ecosystem and endangering people's health. The plan's economics, which conclude that CTL is a viable strategy to move Kentucky forward, are based on false assumptions and don't include a life cycle cost analysis of coal. This is not an “intelligent,” sustainable, or feasible solution—the Appalachian Mountains and its people are already under assault from destructive mining practices. Further, at a time when the globe faces dire consequences from global warming resulting from man-made carbon dioxide emissions, the plan omits how to mitigate the two-fold increase in carbon dioxide emissions that result from combusting CTL fuel (compared to petroleum gas combustion). While the emissions increase is acknowledged in the plan, the degree of increase is severely underestimated. The plan also fails to reveal from where the huge amounts of fresh water needed to make the fuel will come.

### **Strategy 5: Implement a Major and Comprehensive Effort to Increase Gas Supplies, Including Coal-to-Gas in Kentucky**

What the plan says—

The Governor characterizes the fact that Kentucky imports about 55% of total natural gas needs from other U.S. states as a weakness in state energy security. In this strategy, he calls for 100% of all state natural gas needs to be supplied in state by 2025. This goal would be reached both by augmenting natural gas production and by bumping up coal production to create syngas (coal-to-gas process product). Increasing natural gas production requires significant investments in infrastructure. Creating syngas from coal requires increased coal production, a minimum investment of \$900 million per plant, and additional funds to capture and store carbon emissions resulting from the process.

KFTC perspective on this part of the plan—

Making gas out of coal is an inefficient process that continues degradation of Kentucky's health and land. This is another coal-dependent energy strategy that Kentuckians simply cannot afford. Under this plan, the Governor would authorize millions more dollars in future tax subsidies to the coal industry in order to make coal-to-gas (CTG) a seemingly viable investment. Further, more dollars would be funneled towards research and development because CTG products are not yet producible on an industrial-scale and are not nearly as efficient in heating value as natural gas. The plan, as with all other coal-dependent schemes, looks towards the unanswered promise of carbon capture and storage (discussed below) to answer the carbon emissions problem.

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### **Strategy 6: Initiate Aggressive Carbon Capture/Sequestration (CCS) Projects for Coal Generated Electricity in Kentucky**

What the plan says—

The plan aims to have CCS technology “deployed” and in use for 50% of coal operations by 2025. The plan acknowledges that CCS technology is still under development and not yet ready for use and that its use poses significant risks. It also mentions that the application of sequestration is expected to cost between \$20-\$60 per ton of carbon emissions—a cost of between \$2-\$5 billion dollars just to offset emissions from Kentucky’s power plants at today’s levels of production. This cost does not include projected growth in electricity demand or increased emissions that would result from the Governor’s suggestions that coal production be increased for CTG and CTL processes. To accomplish this, the plan suggests removing legislative barriers to CCS development, continuing to invest million of dollars in research and development, and commissioning new state government positions to work on the issue and to identify potential storage sites.

KFTC perspective on this part of the plan—

CCS aims to capture carbon emissions from the coal combustion process and then store the liquid carbon underground. This is not a new strategy—the federal and state government have been dumping millions of dollars into CCS research and development for more than 20 years without any successful demonstrations of industrial-scale CCS yet seen. CCS technology is not ready today nor will it be ready in the near future. Many scientists believe that, even if the technology were available today, the capacity to store carbon at the scale needed only exists until 2100. The Governor’s plan largely ignores this reality.

The plan fails to say how outrageously expensive it is to build generating plants equipped with CCS technology (a cost increase of as much as 90%) or to retrofit the technology into existing plants (a cost increase of as much as 300%). Further, lawyers for the U of K research center receiving much of the money for CCS demonstration won’t even allow the demonstration to go forward because the technique is too risky. Even officials from the federal Government Accountability Office have stated that the technology is too expensive and risky to invest in. Maintaining coal dependence under the assumption that we can rely on CCS technology to make coal clean is an illusion.

### **Strategy 7: Examine the Use of Nuclear Power for Electricity Generation in Kentucky**

What the plan says—

The Governor recommends investigating the potential for nuclear energy to provide some portion of the state’s energy supply in the coming decades. The plan states that this investigation is warranted because nuclear energy emits no direct carbon dioxide—a valuable advantage during a time of global climate change and the likelihood of increasing carbon costs.

KFTC perspective on this part of the plan—

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Nuclear power generates extremely hazardous wastes and the Governor's plan does not contain an adequate exploration of nuclear waste disposal. Transporting or storing waste on-site would leave Kentucky's families and communities vulnerable.

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### IV. KFTC Talking Points About the Governor's Energy Plan

#### 1. Praise for Forward Thinking.

Commend the Governor for addressing Kentucky's need to be forward thinking in terms of energy and economy and for drawing up a plan that goes beyond coal to include renewable energy and energy efficiency.

#### 2. Applaud support for a Renewable Portfolio Standard.

A Renewable Portfolio Standard requires utility companies to produce an increasing share of their energy from clean renewable sources. Over half of the country's electricity is currently part of a Renewable Portfolio Standard. We praise the Governor for supporting the implementation of a statewide RPS plus an Energy Efficiency Resource Standard (EERS).

#### 3. The plan is gross expansion of coal dependence.

The Governor's plan would increase coal mining by almost 50% and use more public money to subsidize the industry. The report offers no cradle-to-grave economic analysis about the true costs of all energy sources, especially coal and proposed technologies (coal-to-gas, coal-to-liquid, carbon sequestration).

#### 4. The plan conceptualizes the use of renewable energy but fails to provide meaningful support.

The plan fails to recognize the viability of renewable energy except in a large utility-scale or on the roof of a house. With few exceptions the plan dismisses renewable energy as worthy of research and residential funding is inadequately low and available for only the rich.

#### 5. Nuclear power is not a "clean" source of energy for Kentucky.

The Governor's plan endorses nuclear energy without any viable plan to keep communities safe from the extremely hazardous wastes generated from nuclear power. Considering the entire life-cycle of nuclear energy, it is not carbon free, safe or economically effective.

#### 6. The plan ignores the impact of energy on low-income Kentuckians.

The Governor's plan fails to invest in strategies that will address the energy needs of Kentucky's low-income families, including those who live in manufactured and rental housing and those who do not earn enough income to access available tax credits.

#### 7. The Governor's plan contains no new strategies for the long-term economic stability of coalfield communities.

Kentucky's coalfield communities remain impoverished even after over a hundred years of the promise of coal. The Governor's plan is just more of the same without consideration to the negative public health, environment and economic impacts that increased coal production will have on these communities. The plan does NOT create a future of sustainable economic growth for those communities now struggling with the poverty created by coal.

#### 8. The Governor's plan fails to empower Kentuckians and create equity.

The plan contains no ideas for educating Kentuckians about the choices available for their energy future or ways that they can participate in these important decisions. It fails to find

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ways to remove the mystery about energy or create the opportunities that a new green economy through re-skilling of Kentucky's workforce.