Intelligent Energy Choices for Kentucky’s Future

Kentucky’s 7-Point Strategy for Energy Independence
Kentucky’s 21st Century Challenge

• Energy increase 40% by 2025
• Clean, reliable, affordable energy
• Improve energy security
• Diverse portfolio
• Reduce CO$_2$ emissions
• Provide economic prosperity
Kentucky Must Act Now

• Address climate change
• U.S. does not control prices, supply, or demand
• Electricity infrastructure requires major rebuilding
• Energy independence is important to national security
Future Vision

- Reduce CO₂ emissions
- Eliminate need for imported oil
- Ensure reasonable energy costs
- Create jobs and grow the economy
The Energy Plan Document

• Guidance and planning
• Suggestions and goals
• Builds on previous legislation
• A working document
  – No specific legislation proposed
  – No funding
Framework Initiatives

- Renewable and Efficiency Portfolio Standard (REPS)
  - Key: 25% by 2025
- Alternative Transportation Fuel Standard (ATFS)
  - Key: 60% by 2025
Strategy 1: Energy Efficiency (REPS, ATFS)

• Homes, buildings, industries, and transportation fleet (plug-in hybrids)
• Efficiency will offset at least 18% of Kentucky’s projected 2025 energy demand
• Efficiency is fast, clean, and cost effective to reduce GHG
Strategy 2: Biofuels & Renewables (REPS)

• Provide equivalent of 1,000 megawatts by 2025
• High performance building standards
• Energy generation with renewables
Strategy 3: Biofuels Production (REPS, ATFS)

• 12% of motor fuels demand by 2025
• Continue to produce safe, abundant, and affordable food, feed, and fiber
Strategy 4: Coal to Liquids (ATFS)

- 50 million tons of coal per year to produce 4 billion gallons of liquid by 2025
- Develop a new industry (=jobs)
- KCTCS workforce development
Strategy 5: Natural Gas and CTG

- 100% of annual natural gas requirement by 2025
- Develop current resources and infrastructure
- Augment with SNG from coal gasification
Strategy 6: Carbon Capture and Sequestration

• Evaluate and deploy carbon management for 50% of coal-based energy applications by 2025

• Component: UIC Class II primacy (Class VI?)
Strategy 7: Nuclear Power

- By 2025, decide whether and how to include nuclear power in Kentucky’s energy mix
- Put nuclear on the table in a coal state
2025 Accomplishments

• Provide 30k to 40k new jobs
• Kentucky energy independence from imported oil
• 4 billion gallons of liquid fuels
• 135 Bcf/yr syngas
• Reduce per capita CO₂ emissions by 50%
• Optimize renewables
• Maintain current per capita energy consumption
Resources

- Copy of plan may be downloaded:
  
  energy.ky.gov