

# Governor Steve Beshear: Intelligent Energy Choices for Kentucky's Future

## CHALLENGES

- Kentucky's energy use is projected to grow by slightly more than 40 percent between now and 2025.
- Greenhouse gas (GHG) emissions could be more than 40 percent higher in 2025.
- Coal-fired power generation in the state will not sufficiently support Kentucky's coal industry if other states cease purchase of Kentucky coal.
- The nation's dependence on foreign energy supplies endangers our security.

## STRATEGIES

**Strategy 1:** Improve the energy efficiency of Kentucky's homes, buildings, industries and transportation fleet.

**Goal:** Energy efficiency will offset at least 18 percent of Kentucky's projected 2025 energy demand.

**Strategy 2:** Increase Kentucky's use of renewable energy

**Goal:** By 2025, Kentucky's renewable energy generation will triple to provide the equivalent of 1,000 megawatts of clean energy while continuing to produce safe, abundant and affordable food, feed and fiber.

**Strategy 3:** Sustainably grow Kentucky's production of biofuels

**Goal:** By 2025, Kentucky will derive from biofuels 12 percent of its motor fuels demand, while continuing to produce safe, abundant and affordable food, feed and fiber.

**Strategy 4:** Develop a coal-to-liquids industry in Kentucky to replace petroleum-based liquids

**Goal:** Kentucky will develop a coal-to-liquids industry that will use 50 million tons of coal per year to produce four billion gallons of liquid fuel per year by 2025.

**Strategy 5:** Implement a major and comprehensive effort to increase gas supplies, including coal-to-gas in Kentucky

**Goal:** Kentucky will produce the equivalent of 100 percent of our annual natural gas requirement by 2025 by augmenting in-state natural gas production with synthetic natural gas from coal-to-gas processing.

**Strategy 6:** Initiate aggressive carbon capture/sequestration projects for coal-generated electricity in Kentucky

**Goal:** By 2025, Kentucky will have evaluated and deployed technologies for carbon management, with use in 50 percent of our coal-based energy applications.

**Strategy 7:** Examine the use of nuclear power for electricity generation in Kentucky

**Goal:** Nuclear power will be an important and growing component of the nation's energy mix and Kentucky must decide whether nuclear power will become a significant part of meeting the state's energy needs by 2025.

**Strategies 1, 2 & 3** are designed to help the commonwealth achieve a proposed **Renewable and Efficiency Portfolio Standard**, whereby 25 percent of Kentucky's energy needs in 2025 will be met by reductions through energy efficiency and conservation and through the use of renewable resources.

**Strategies 1, 3 & 4** include strategies to help the commonwealth achieve an **Alternative Transportation Fuel Standard (ATFS)** to help transition away from dependence on foreign petroleum, utilizing fuels such as those derived from biomass and coal, plug-in hybrid vehicles and compressed natural gas.

## **RESULTS**

If enacted, the plan will:

- Provide 30,000-40,000 new Kentucky jobs as a result of a booming diversified energy sector.
- Achieve energy independence for Kentucky from imported oil.
- Produce annually approximately four billion gallons of liquid fuels from coal (utilizing about 50 million tons of coal annually).
- Produce annually 135 billion cubic feet of synthetic gas from coal (utilizing about nine million tons of coal annually) to augment Kentucky's natural gas supply.
- Reduce the net per capita carbon emissions into the atmosphere by 50 percent, while ensuring Kentucky's economic viability by protecting Kentucky's coal industry against negative impacts of federally mandated carbon management legislation.
- Optimize our renewable energy resources, utilizing wind, solar, hydropower, landfill gas, and biomass.
- Maintain current energy per capita use despite major energy growth requirements.