

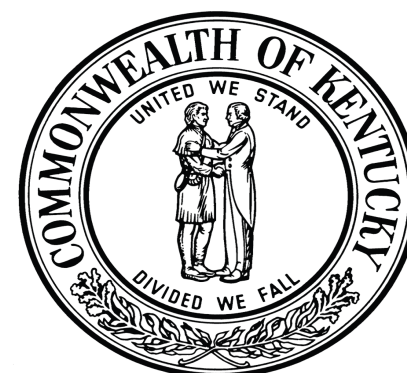
# EXECUTIVE TASK FORCE ON BIOMASS & BIOFUELS DEVELOPMENT IN KENTUCKY

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GOVERNOR'S OFFICE OF  
AGRICULTURAL POLICY



# ***Intelligent Energy Choices for Kentucky's Future***

Kentucky's 7-Point Strategy  
for Energy Independence

[www.energy.ky.gov](http://www.energy.ky.gov)



# **Biomass in Kentucky**

**A Lifetime Opportunity!**



# Biomass is the most wide-spread renewable energy source in the world

- Fourth largest source of energy worldwide after coal, oil and natural gas



# Why biomass in Kentucky?

- **Domestic, renewable energy resource**
  - Production is distributed throughout every county, and is not dependent upon topography or type of soil
- **Reduces atmospheric carbon**
  - Biomass is at worst carbon-neutral, and in many cases serves as a carbon “sink”
- **Sustainable**
  - Productivity, not diversion



# Strategy 6

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



What's causing this biomass  
(r)evolution?



# Federal Renewable Fuels Standard (RFS)

- Renewable Biofuels (corn, milo, wheat, etc.)
  - 15 billion gallons by 2015
  - Production capacity from corn at almost 12 billion gallons today, with cheap expansion capability to 15 billion gallons
  - **THIS OPPORTUNITY HAS BEEN TAPPED OUT!!**
- Advanced Biofuels
  - 21 billion gallons by 2022 (16 billion cellulosic, 5 billion undifferentiated including biodiesel)
  - Less than 1 billion gallons developed or under development
  - **A 20 BILLION GALLON OPPORTUNITY!!**





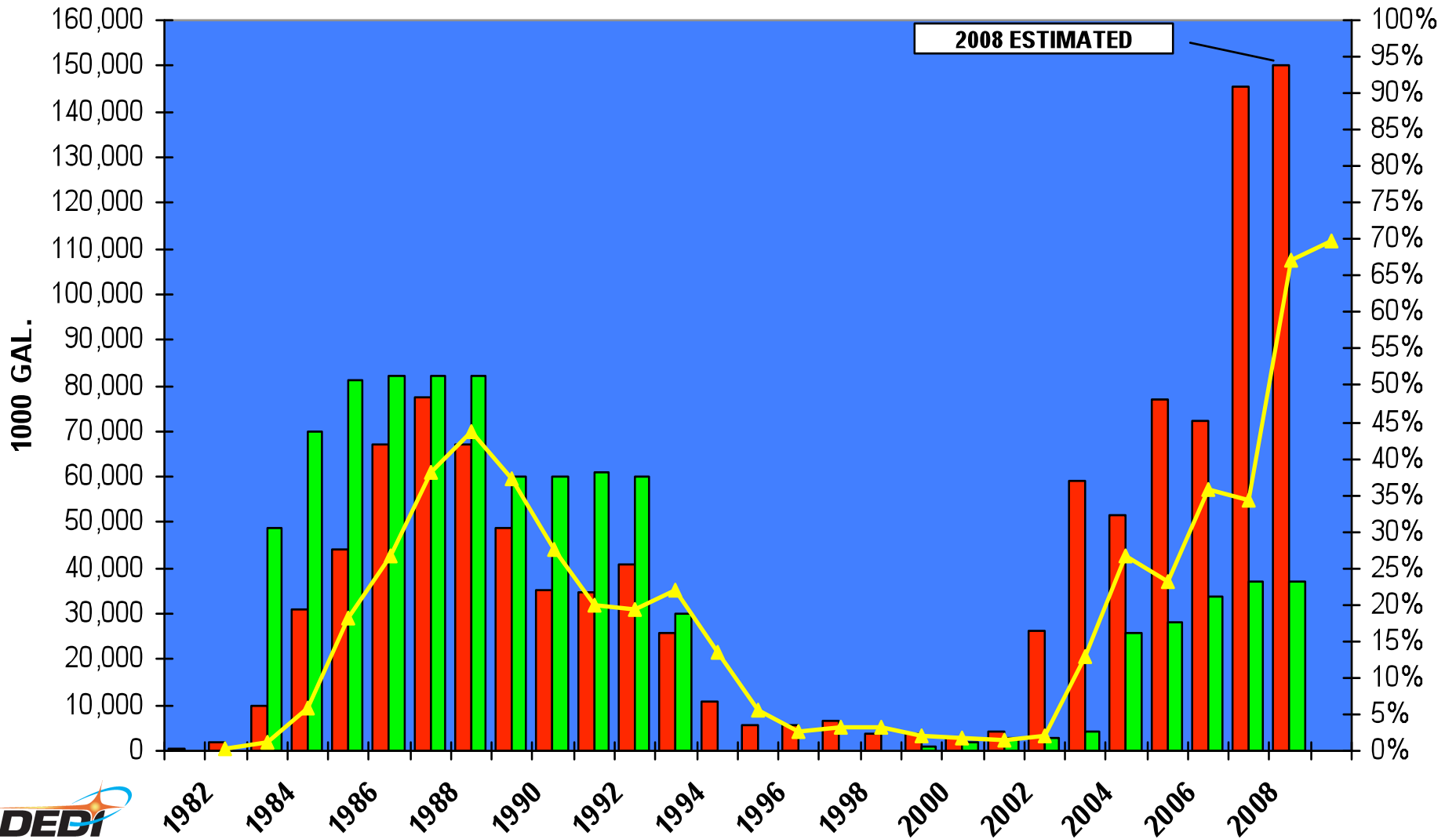
# Strategy 3

**Goal: By 2025, Kentucky will derive from biofuels 12 percent of its motor fuels demand (775 million gallons/year, which represents approximately 20 percent of Kentucky's current transportation fuels demand), while continuing to produce safe, abundant, and affordable food, feed and fiber.**



# ETHANOL HISTORY IN KENTUCKY

■ ETHANOL CONSUMPTION 
 ■ ETHANOL PRODUCTION 
 ▲ E-10 MARKET SHARE



# Federal & State Renewable Portfolio Standards (RPS)

- 30 states mandate some type of RPS
  - Ranges from 105 MW to 25%
- 5 states have voluntary goals including Kentucky at 1000 MW
- Federal legislation introduced and under debate could establish an RPS of 25% by 2025



# Strategy 2

**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.**



# Kentucky's Biomass Future

<b>RPS</b>	
<b>15%</b>	<b>13.0 million tons</b>
<b>20%</b>	<b>18.2</b>
<b>25%</b>	<b>22.0</b>
<b>RFS</b>	<b>10.0</b>
<b>Total Biomass</b>	<b>23-32 million tons</b>
<b>Value</b>	<b>\$1.3-\$2.0 Billion</b>



# Biomass Task Force: Laying the Foundation

- Establish “official” supply-demand potential
- Estimate the economic impact and capitalization requirements of a biomass industry
- Develop a vision on how such large volumes will be handled
- Assess Kentucky’s ability to support the biotechnology
- Ensure that Kentucky can make the right business structures available
- Recommend a realistic incentive package that will encourage farmers to plant, foresters to harvest, and developers to build.



# So what does this mean for Kentucky?

We'll either import our renewable  
energy, or we'll take advantage of  
the opportunity!

