

# GOVERNOR BESHEAR'S EXECUTIVE TASK FORCE ON BIOMASS AND BIOFUELS DEVELOPMENT IN KENTUCKY

## Task Force Charge

Facilitate the development of a sustainable biomass and biofuels industry in Kentucky that will generate prosperity in a carbon-constrained environment, and revitalize rural Kentucky by creating new jobs and strengthening local economies.

## Final Report Outline

### EXECUTIVE SUMMARY

***Validate Kentucky's biomass production capabilities within a sustainable environment. Validate Kentucky's potential biomass demand.***

1. BIOMASS SUPPLY / DEMAND – CURRENT AND FUTURE
  - 1.1 Biomass Overview
  - 1.2 Current Biomass Supplies
    - 1.2.1 Agricultural Biomass
    - 1.2.2 Forest Biomass
    - 1.2.3 Municipal and Other Biomass
  - 1.3 Projected Biomass Supplies by 2025
  - 1.4 Biomass Demand by 2025
    - 1.4.1 Carbon Management Overview
    - 1.4.2 Federal Renewable Fuels Standard
    - 1.4.3 Renewable Portfolio Standard
  - 1.5 Sustainability Standards
    - 1.5.1 Forestry
    - 1.5.2 Agriculture
  - 1.6 Environmental and Conservation Standards
  - 1.7 Conclusions

***Evaluate biomass transportation and logistics opportunities, and recommend a course of action.***

2. BIOMASS TRANSPORTATION AND LOGISTICS
  - 2.1 Current Transportation Infrastructure
  - 2.2 Logistics Opportunities
    - 2.2.1 Distributed Processing
    - 2.2.2 Collection and Densification
  - 2.3 Conclusions

***Evaluate the status of energy crop and forestry biotechnology and genetics, and recommend a plan of action that allows biotechnology to support biomass production.***

3. BIOMASS TECHNOLOGY
  - 3.1 Current Status of Production Biotechnology
    - 3.1.1 Energy Crops
    - 3.1.2 Forestry
  - 3.2 Current Status of Conversion Technology
    - 3.2.1 Biochemical Conversion
      - 3.2.1.1 Biomass
      - 3.2.1.2 Animal Manure Biogas
      - 3.2.1.3 Anaerobic Digestion and Landfill Gas
    - 3.2.2 Thermo-chemical Conversion
      - 3.2.2.1 Direct Co-firing with Coal
      - 3.2.2.2 Gasification and Combustion
      - 3.2.2.3 Gasification to Liquids
  - 3.3 Conclusions

***Evaluate available business structures in Kentucky, including structures that allow direct producer ownership, and formulate plans of action that allow adequate capitalization of a new biomass industry.***

4. BUSINESS STRUCTURES
  - 4.1 Overview
  - 4.2 Value-Added Cooperatives
    - 4.2.1 Producer Education
    - 4.2.2 Tax Credit Flow-Through
  - 4.3 Conclusions

***Facilitate economic impact analysis of the effect of a biomass and biofuels industry on Kentucky.***

5. ECONOMIC EFFECTS OF A KENTUCKY BIOMASS / BIOFUELS INDUSTRY
  - 5.1 Biomass as a Distributed Income Source
  - 5.2 Monetizing the Benefits of Biomass to Communities
  - 5.3 Economic Impact Summary
  - 5.4 Conclusions

***Recommend legislative action that supports development of a biomass and biofuels industry.***

6. RECOMMENDATIONS
  - 6.1 To Be Determined After Nov. 18 Meeting