



# Office of Energy Independence

*Sustainable Forestry Conference*  
*Florence, WI – April 2008*  
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# Where We Are Now

- WI imports 66% of its fuel from foreign countries—Our total *petroleum* costs are now **\$12 billion** per year.
- Total ENERGY bill is close to **\$24 billion/yr.**  
*Nearly 10% of GSP.*
- Almost all this money leaves the state
- In the future, most of our renewable energy will come from rural areas in WI
- 
- 5.2% of our total energy is renewable



# Energy Independence Mission

- Generate 25% of electricity and transportation fuels from renewable resources by 2025
- Capture 10% of the emerging bio industry and renewable energy market by 2030
- Become national leader in groundbreaking energy research





# Focus

- Ensure and facilitate implementation of Governor's energy independence initiatives
- Serve as single point of contact for businesses, local units of government and NGOs pursuing bio development, energy efficiency, and energy independence
- Develop energy independence policy options for consideration by Governor
- Identify federal funding opportunities and facilitate applications for funding
- Identify barriers to implementation of Governor's energy independence initiatives
- Serve as the State Energy Office



# Year 1 Plans

- Develop WI Biomass Marketplace
- Increase Consumption of Biofuels
- Meet Governor's Executive Orders
- Establish energy efficiency as a state priority.



# BioFuels...BioPower...BioProducts





# BioFuels - Transportation

2025 Goal = 1 billion gallons

## End of 2007

- 300 million gallons of ethanol/corn
- 35 million gallons of biodiesel

## 2025 BioFuels Projection

- 905 million gallons with current biofuels
  - 732 million of ethanol/corn
  - 173 million of biodiesel
  - ??? Million of ethanol/cellulosic



# BioFuels

## Other Considerations

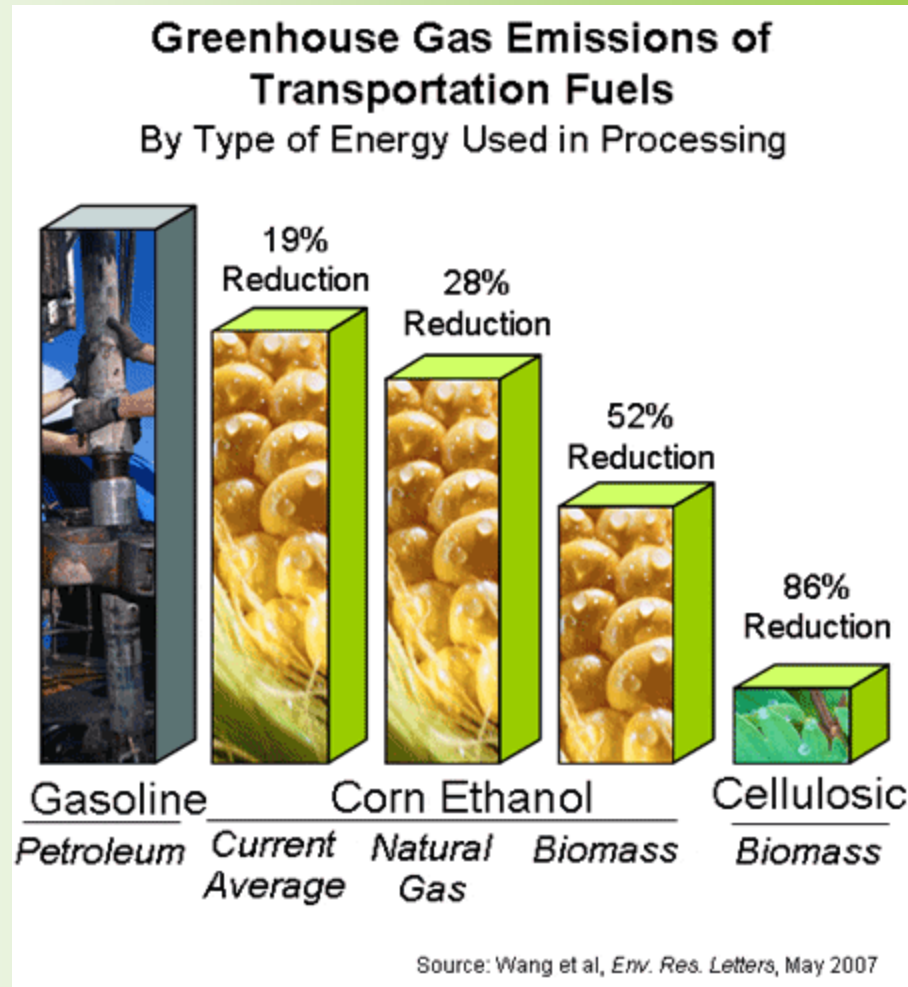
- Cellulosic Ethanol
- Corporate Average Fuel Economy (CAFE) standards at federal level
- Plug-in Hybrid Electric
- Hydrogen fuels





# BioFuels

## Other Considerations



# BioPower

## Renewable Resources

**25 x 25 Goal – 21,000 gWh**

### Current Production

- 2,313 gWh in 2005
- 4,305 gWh by 2010 (Mostly wind)
- 7,770 gWh by 2015 (Wind/biomass)

### 2025 Renewable Portfolio

- Greatest challenge for the state
- Greatest opportunity for agriculture & forestry



# Biomass

- Biomass is organic matter used as a fuel or source of energy
  - plant material, vegetation, agriculture waste, forestry waste
- Use of biomass as an energy source results in little net production of carbon dioxide





# Biomass in WI

- 14,963,398 tons of biomass available annually in Wisconsin
  - Sources: switchgrass, hybrid poplar, wood residues at \$50 / ton
- Commercial Production Viability
  - Demonstration projects for switchgrass and hybrid poplar
- 1 acre of switchgrass = energy for one home for a year



# Biomass Projects in WI

- Offset coal with biomass
- Fuel for School
  - woody biomass
- Biomass Exchange
  - brokerage for biomass
- Biomass market development



# Communities, OEI & the 25x25 Goals

- Embrace 25 x 25 goals
- Inventory current energy use & sources
- Find ways to reduce energy use
- Find ways to use renewable energy source





# Communities, OEI & the 25x25 Goals

- In California, 48 cities and counties have started on the path to energy independence through Community Choice Aggregation
  - 22 of them have signed on to the goal of getting a full 40% of their energy from renewable sources.
- Under California's 2002 Community Choice law (AB 117) local governments can purchase electricity for power users in their communities.
- Law allows a public process for a city
  - to solicit a new electric-service provider
  - set higher goals for green power, and
  - use revenue bonds to finance new solar, wind, hydrogen, and conservation facilities, financed through monthly electric-bill payments made by residents and businesses.



# Achieving 25x25

***Producing clean energy from renewable sources and creating jobs at the same time is as good as it gets.***

-- Governor Jim Doyle

Judy Ziewacz, Director  
Office of Energy Independence

<http://power.wisconsin.gov>

