Office of Energy Independence

Sustainable Forestry Conference
Florence, WI – April 2008
David Jenkins
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

Greenhouse Gas Emissions of Transportation Fuels
By Type of Energy Used in Processing

- Gasoline: 19% Reduction
- Corn Ethanol: 28% Reduction
- Cellulosic: 52% Reduction
- Petroleum: 86% Reduction

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