

# **Oregon Biomass: Market Status as of September 2008**



# Oregon Biomass Status - Sept.'08

## **78 Biomass Energy Facilities**

- ❑ Wastewater, landfill, pellets, woody biomass
- ❑ 72 generate thermal energy used on-site or nearby
- ❑ 82% of all biomass energy used serves industry
- ❑ 100 trillion British thermal units heat '07
- ❑ 430 tons of pellets ( = 51 million therms of gas)

## **25 Generate Electricity**

- ❑ 340 Megawatts connected Capacity
- ❑ 1,770 million kilowatt hours in '07  
(= 170,000 homes @ 10,000 kwh each)



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## **Woody biomass energy facilities**

- ❑ 64 biomass energy sites
- ❑ 18 generate electricity
- ❑ 310 MW connected electric capacity
- ❑ 1,700 million kilowatt hours generated '07
- ❑ 27 trillion btu from spent pulping liquor

## **Landfill gas recovery sites**

- ❑ Five facilities with 32 MW capacity
- ❑ Two provide thermal (greenhouses, onion drying)
- ❑ 70 million kilowatt hours generated '07



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## **Wood pellet manufacturing**

- ❑ Five firms at seven sites (600 ton/yr capacity)
- ❑ 320,000 ton of pellets/pressed log produced '07

## **Dairy digesters**

- ❑ MEAD Tillamook
- ❑ Cal-Gon Dairy (17 kW)
- ❑ 2.1 million kilowatt hours generated '07

# New Biogas Projects

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## **Completed June '06 - '08)**

- ❑ Findley Butte (3 MW plus onion drying)
- ❑ Coffin Butte Expansion (6 MW)
- ❑ Dry Creek (6 MW)
- ❑ Hillsboro Landfill (expanded greenhouse heat)
- ❑ MEAD Tillamook (expansion and ownership)
- ❑ Columbia Wastewater Treatment (3MW)



# New Woody Biomass Projects

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## Completed June '06 – June '08

- ❑ Douglas County Forest Products (3 MW)
- ❑ Biomass One Expansion (6 MW)
- ❑ Tillamook Lumber – Hampton (thermal)
- ❑ Rough and Ready Forest Products (2 MW)
- ❑ Feres Lumber (Evergreen Energy) (14 MW)
- ❑ BOISE LaGrande (thermal)



# New Woody Biomass Projects

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## **Pellet Manufacturing**

- ❑ Bear Mountain Expansion 100k Tons
- ❑ Blue Mtn. Lumber Expansion 100k Tons
- ❑ Klamath Fuel 30k Tons
- ❑ West Oregon Wood Products 30k Tons

## **Commercial Institutional Heating**

- ❑ Harney County Regional Hospital (pellets)
- ❑ Enterprise School District (biomass)

# Proposed Biomass Projects by 2010

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## **Biogas**

- ❑ Eastern Oregon Dairy
- ❑ Medford Wastewater Treatment
- ❑ Gresham Wastewater Treatment
- ❑ Willow Lake Wastewater Treatment
- ❑ Rickreal Dairy

## **Commercial Institutional Heating**

- ❑ Burns Catholic Diocese
- ❑ Klamath Falls School District

# Proposed Biomass Projects by 2010

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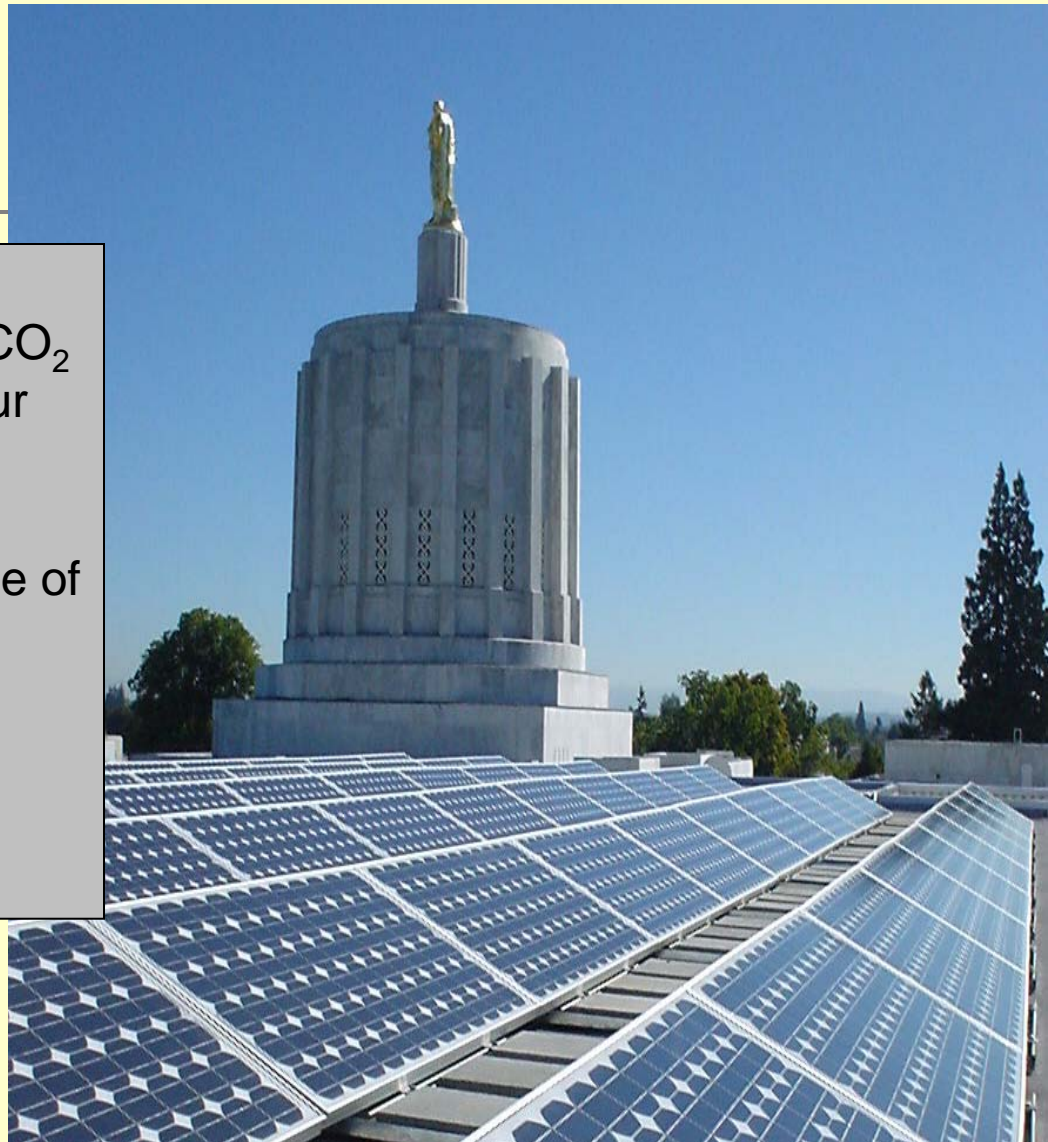
## **Woody Biomass**

- ❑ Lakeview Generating (14 MW)
- ❑ Warm Springs (20 MW)
- ❑ Ochoco Energy (14 MW)
- ❑ Heinze – Ontario (thermal)

## **Pellet Manufacturing**

- ❑ DR Johnson - Riddle 100k tons
- ❑ Western Oregon Wood Products – K Falls
- ❑ Bear Mountain – Burns

- ◆ Based on Oregon's experience, we can limit CO<sub>2</sub> emissions and improve our economy.
- ◆ Education and efficient use of resources is essential.
- ◆ Renewable resources are Oregon's most prevalent and beneficial resources.



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