

US EPA ARCHIVE DOCUMENT

California's Bioenergy Action Plan

California Bioresources Alliance Symposium 2013

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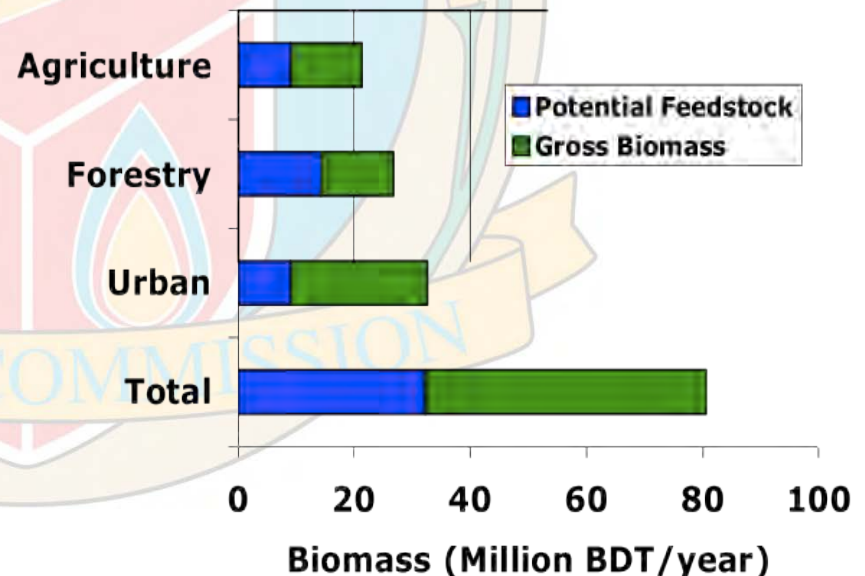
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California's Bioenergy Potential

Less than 15% of the biomass resources available for energy production are utilized using available techniques.

Approximately 60% of the material buried in landfills each year is comprised of biomass.

- There are an estimated 36 million bone-dry tons of biomass from the urban, agricultural, and forest sectors.
- Using waste-based biomass resources, California has the annual potential to generate over 32 TWh of renewable generation or produce over 1 billion gallons of biofuels.



Bioenergy Action Plan

The background of the slide features a large, semi-transparent watermark of the California Energy Commission logo. The logo is circular and contains the text "STATE OF CALIFORNIA" at the top and "ENERGY COMMISSION" at the bottom. In the center, there is a shield with a red and white design, and a bear is depicted behind the shield.

- Utilizing biomass resources helps the state meet environmental mandates such as the RPS, 75% waste reduction, fire prevention, GHG Reduction and Low-carbon Fuel Standards.
- 2011 Bioenergy Action Plan identified significant challenges limiting development of bioenergy projects and utilization of biomass resources.

Use of Biomass Residues

Benefits

- Liability (cost) becomes a valuable commodity
- Environmental benefits
- Alternative disposal option for organics
- Renewable energy that can displace fossil generation, transportation fuels, and natural gas.

Challenges and Considerations

- Uncertainty and costs related to regulations and utility interconnection.
- Uncertainty in biomass commodity market
- Risks limit private capital opportunities.
- Air pollutants in severe non-attainment regions
- Biomass sustainability

2012 Bioenergy Action Plan

California's long-term objective is to create a competitive bioenergy market in California, which include biopower, biofuels, and biogas.

The goals of *2012 Bioenergy Action Plan* are to:

- Increase environmentally and economically sustainable bioenergy production from biomass waste.
- Encourage development and deployment of bioenergy technologies that provide local electricity generation, combined heat and power, renewable natural gas, and renewable transportation fuels.
- Create jobs and stimulate economic development, especially in rural regions of the state.
- Reduce fire danger, improve air and water quality, and reduce waste.

2012 Bioenergy Action Plan

The Action Plan promotes interagency coordination to address challenges facing the development and operation of bioenergy projects in California.

Actions will:

- Research, develop, and demonstrate diverse bioenergy technologies and applications, and assess technology costs, benefits, and impacts.
- Develop and make accessible information about the availability of biomass wastes and opportunities for bioenergy development.
- Streamline and consolidate the permitting of bioenergy facilities and reconcile conflicting regulatory requirements.
- Assess and monetize the economic, energy, safety, environmental, and other benefits of biomass.
- Facilitate access to transmission, pipelines, and other distribution networks.

Thank you!

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