

CALIFORNIA BIOMASS

CLEANING THE AIR, REDUCING GHG

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Southern California Green Waste/Wood Biomass Management Symposium
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California Biomass Energy Alliance, LLC





BIOMASS A GREEN ENERGY SOURCE



About CBEA

- Created over 20 years ago with a charter to promote biomass energy as a means to reach the environmental and economic goals of California.



- The sole advocate of the solid fuel biomass power industry through California's energy crisis, the introduction and implementation of renewable standard and waste reduction mandates though to today's carbon constrained proceedings ruled by AB 32/SB32's greenhouse gas emissions reduction requirements.



- CBEA played a prominent role in each of these important public policy changes and educating policy makers on the myriad benefits of avoiding conventional fuel disposal and open-burning and the jobs it creates.



BIOMASS ESSENTIAL FOR CALIFORNIA



- A clean, renewable alternative to fossil fuel plants
 - Biomass helps California meet renewable energy mandates (AB 1078 / SB 107 / SB 1122 / SB 350)
- Over 8 million tons of used wood as fuel annually. About 3.5 million tons of that is used urban wood diverted from landfills.
 - Biomass directly helps local governments meet landfill diversion mandates (AB 939 / SB 1383)
- Provides a net reduction of over 3.5 million tons of biogenic GHG emissions per year.
 - Biomass helps California meet mandated GHG reductions (AB 32 / SB32)
 - Diverting wood from high-emission conventional disposal like landfill disposal and agricultural field burning, actually reduces GHG emissions



BIOMASS

GOOD FOR THE ENVIRONMENT

- Other Environmental Benefits

Improved Air Quality

- Reduces criteria pollutants by preventing open-field burning of 3.4 million tons of agricultural and forestry residues each year, biomass plants cut criteria pollutants up to 98%
- Specifically essential to the success in the Central Valley of the ban on all agricultural burning

Forest Health

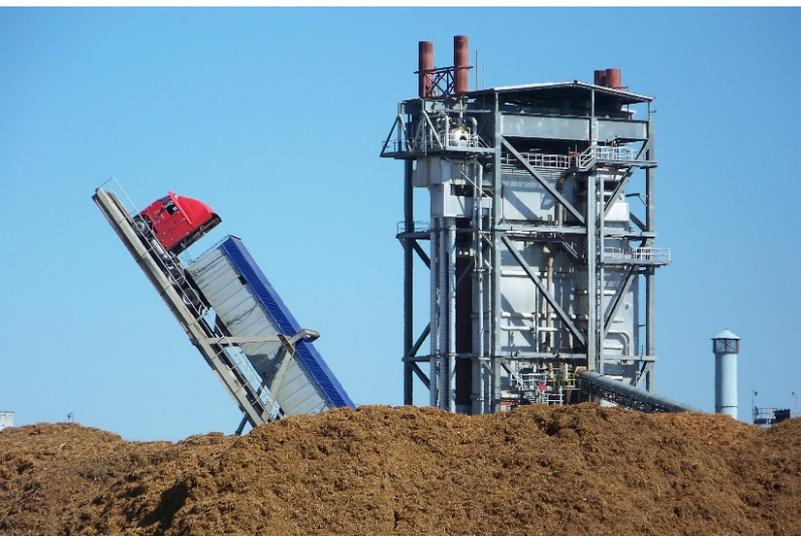
- Improves forest health by diverting 1.3 million tons of forest residues annually, reducing the threat of forest fires that endanger lives and property, and contribute to air pollution and GHG emissions
- Solution to excess wood coming from the current tree mortality crisis due to drought and insect infestation (SB 859)
- January 2010 Energy Commission PIER study concluded biomass fuels are one of the most cost-effective ways to produce environmental benefits in the forests, which provide a beneficial use of the forest treatment residues



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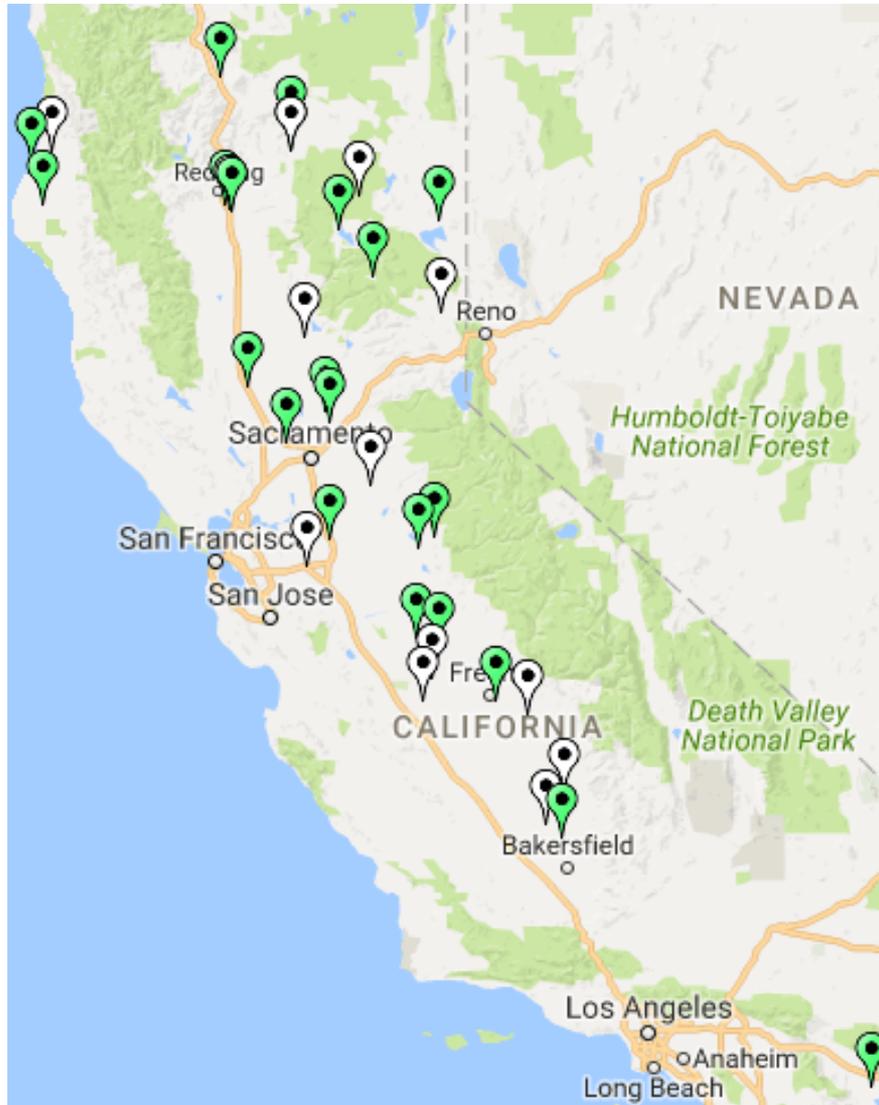


- 22 utility scale biomass electric generating plants in California, distributed across 15 counties
- Combined generating capacity of over 532 MWs
- Biomass power is around 6%* of California's renewable electricity.
- Employs about 700 direct jobs at the facilities and 1,000 to 1,500 dedicated indirect jobs in the fuel supply infrastructure.



- Despite its many benefits biomass power is more expensive to produce — due largely to fuel costs, but also higher capital costs – and receives no incentives or tax breaks

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- 12 closed biomass facilities
- Most due to contracting barriers/economics
- Loss of biomass power impacts the economic and environmental health of our communities



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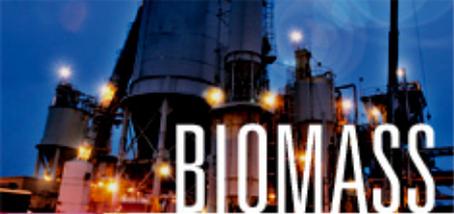


- Unlike other renewable technologies -- biomass is a reliable, base load electric power source -- able to provide a steady flow of power regardless of external conditions



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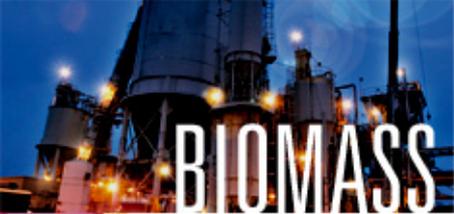


BIOMASS KEEPING IT HEALTHY



The Future of California's Biomass Industry

- Expiring contracts
 - Half of California's biomass industry has contracts that will expire within the next 5 years
- Technology Neutral RPS Not Very Technology Neutral
 - CPUC RPS rules give wind and solar cost advantage
 - CPUC RPS rules lack acknowledgement of environmental and economic benefits
 - Results: California's largest utilities currently procured exclusively wind and solar.
- Distortion of ISO's analysis more flexible capacity is needed. Provides further bias against baseload resources such as biomass



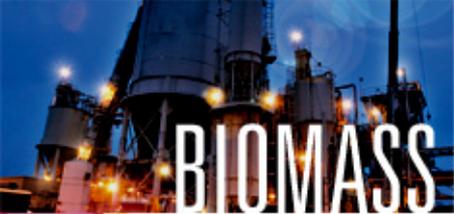
BIOMASS KEEPING IT HEALTHY



California needs to **support** the existing biomass industry by:

- **CPUC**

- Reforming Least Cost Best Fit – This is where the various special benefits associated with bioenergy should be receiving credit in the RPS procurement process.
- Finalize integration cost adders and Effective Load Carrying Capacity Methodology (RPS and Long-Term Procurement Plan proceedings)
- Implement SB 350
- Identify a diverse and balanced portfolio of resources needed to ensure a reliable electricity supply that provides optimal integration of renewable energy in a cost-effective manner
- Develop an Integrated Resources Plan that would permit procurement of resources that reduce GHGs including those that may not compete favorably in price against other resources due to technology or fuel source.



BIOMASS KEEPING IT HEALTHY



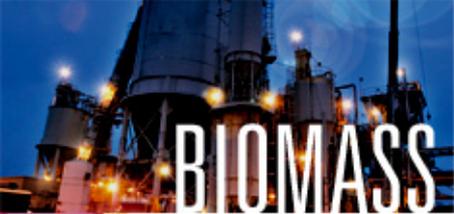
California needs to **support** the biomass industry by:

- **Governor/Legislature/Local Governments/Agencies**
 - Cost sharing this valuable resource
 - Allocating Greenhouse Gas Reduction Funds for the State's cost-share for biomass power production.
 - As partners in state and regional environmental improvement goals, local governments and agencies should be providing funding for the level biomass facilities contribute to those compliance strategies

Example: landfill diversion goals and requirements, local governments should provide the level of funding those biomass facilities contribute to their compliance strategies.

Example: Regional air quality regulations (burn ban)

Example: building resilient forests with fuel reduction efforts



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- **Environmental and Economic Consequences Are Unacceptable**
 - American Union Elementary School, 10 miles south east of Rio Bravo Fresno near the disadvantaged community of Easton, Friday 2/19



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