



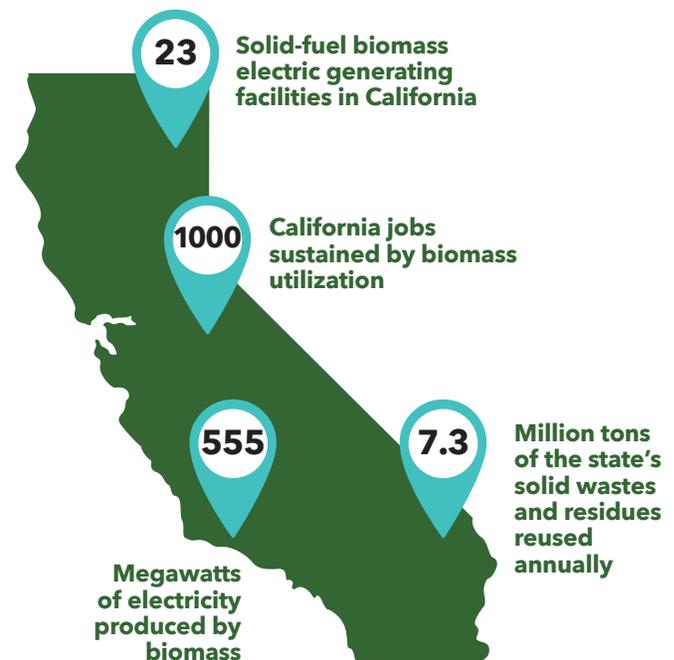
BIOMASS RECOMMENDATIONS

WHAT IS BIOMASS?

Biomass is organic waste material from forest thinning, including agricultural crop, urban wood waste and non-commercial forest materials that can be used to generate heating, cooling, electricity or fuels.

In addition to serving as a local energy source, biomass utilization is responsible for sustaining more than 1,000 California jobs, many in rural communities where they are most needed. Removing biomass keeps our forests healthy, and puts organic byproducts like forest trimmings, sawmill residue, and agricultural residuals to good use.

There are 23 solid-fuel biomass electric generating facilities in California, distributed across 15 counties. The California biomass energy industry reuses approximately 7.3 million tons of the state's solid wastes and residues annually and produces around 555 megawatts (MW) of electricity. Once more than 15% of California's renewable electricity supply, biomass generators now account for about 6% of California's renewable energy portfolio.



WHAT ARE THE BENEFITS AND ADVANTAGES OF BIOENERGY?

Generating renewable heating, cooling, and energy in local communities, smart biomass utilization can support the interrelated goals of forest health, forest carbon stabilization (by reducing the risk of high-severity wildfire), improved water and air quality, creating and maintaining jobs, as well as keeping forests healthy for enjoyment and recreation. Specific benefits of biomass energy include:

- **Supporting necessary hazardous forest fuel reduction** and watershed protection.
- **Reducing waste material** otherwise destined for landfills or open-pile burning.
- **Slowing the release of greenhouse gases** by mitigating the risk of large-scale, high-severity wildfires.
- **Reducing short-term and localized air pollution** by burning biomass using a more contained and cleaner combustion process. A case study by Placer County Air Pollution District showed that the life cycle for biomass, when compared to an open pile burn, reduced air emissions 98-99% for particulate matter, carbon monoxide, non-methane organic compounds, methane and black carbon.
- **Providing base load renewable energy (24-7)** that can ramp up or down according to the needs of the grid.
- **Creating economic opportunity** and providing employment (4.9 jobs per MW).

WHAT ARE THE HURDLES BIOENERGY NEEDS TO OVERCOME?

- There are only 23 biomass facilities today, compared to 63 in the 1990s.
- The distance between biomass facilities and fuel sources results in high transportation costs.
- Regulation of fuel sources that preclude use of agriculture waste, landfill wood or forest waste from non-high hazard zones. Added fuel flexibility is needed
- Aging and outdated infrastructure and a lack of facilities in locations that can strategically support forest health efforts.



WHAT ARE THE SOLUTIONS?

Placing biomass material that has no commercial value in our landfills doesn't make sense and isn't practical. Bionenergy, the method through which forest waste and dead woody debris is used to generation renewable energy, is a win/win. Specific solutions include:

- **Expand the definition of Tier I and Tier II** material to include the Fire and Resource Assessment Program (FRAP) map which shows increased fire threat so that material can be obtained as close as possible to a facility and reduce transportation costs.
- **Incentivize biomass over open pile burns** and reduce the cost of biomass (e.g. mobilization, transport).
- **Support the establishment and maintenance of biomass energy facilities** that contribute to reducing the risk of high-severity wildfire as part of the solution necessary to achieve California's greenhouse gas emissions reductions goals.
- **Reduce barriers** for smaller biomass facilities.
- **Provide a transportation subsidy** from Greenhouse Gas Reduction Fund (GGRF) or other sources to offset the higher costs of biomass energy.

PREVIOUS BIOMASS LEGISLATION

- **SB 1122 (Rubio, 2012)** directed electrical corporations to collectively procure 250 MW of renewable energy from biomass technologies producing less than 3 MW (BioMAT program).
- **SB 859 (Budget, 2016)** directed electrical corporations and publicly owned utilities serving more than 100,000 customers to collectively procure, through 5-year contracts, their proportionate share of 125 MW from biomass energy. At least 60% of feedstock from these contracts must be from wood harvested from high fire-hazard zones.
- **SB 901 (Dodd, 2018)** extended the SB 859 contracts and any other contracts expiring in the same time period by an additional 5 years, as long as they meet high hazard fuel requirements and the facility is not a federal severe or extreme nonattainment area for particulate matter or ozone. SB 901 expanded the Tier 1 and Tier 2 (high fire hazard) fuel requirements to include fuels removed from specific Timber Harvesting Plan exemptions.

The California Forest Watershed Alliance (CAFWA) is an urban-rural coalition representing water interests, local governments, the conservation community, agriculture, and the forestry sector, created to promote the restoration and improvement of California's forested watersheds. For more information, visit www.caforestsandwatersheds.org.