

**California Biomass Collaborative Workshop
on Environmental Regulations
and Implications for Biomass Management in California**

Air Quality Regulations

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Air Resources Board

Motor Vehicle Specifications for Alternative Fuels

- M-100 (100% Methanol)
- M-85 (85% Methanol + 15% Gasoline)
- E-100 (100% Ethanol)
- E-85 (85% Ethanol + 15% Gasoline)
- Compressed Natural Gas
- Liquefied Petroleum Gas
- Hydrogen

Use of Biomass Derived Alternative Fuels

- Can be used as a neat motor vehicle fuel or as a blending component
 - GTL, renewable diesels, biodiesel can be used as neat fuels or as blends of diesel fuel
 - GTL blend: 33% blend is competitive in cost to diesel
 - Biodiesel B1-B100, common blend is B20
 - No motor vehicle fuel specifications
 - Ethanol
 - Used as a neat fuel or as a blend
 - lower percentage blends compatible with existing fleet, higher blends such as E85 and E100 require flex-fueled vehicles
 - CNG made from landfill gas, agricultural waste conversion, forest products
 - Used as a neat fuel
 - Additional processing to meet fuel specifications

Use of Biomass Derived Alternative Fuels (Cont)

- Biomass-generated electricity
 - Solid fuel biofuels from agriculture and forestry residues
 - Biogas from landfills, wastewater treatment, anaerobic digestion of livestock manure, burning of direct municipal waste

Use of Biomass Derived Alternative Fuels (Cont)

- Benefits
 - Addresses waste disposal and mitigates environmental problems
 - Enhances fuel diversity
 - Extend energy supplies
- Issues to be resolved
 - High cost, supply and logistic issues, and commercial development

Recent Legislation SB 975

- Bill would provide that any public agency, or regulated utility, or solid waste collection facility may use a biodiesel blend containing up to 20% biodiesel in any ARB certified retrofitted vehicular or off-road diesel engine
- Effective January 1, 2006

Recent Legislation AB 1007

- Not later than 6/30/07, CEC & ARB, in consultation with SWRCB, CDFA, & other state agencies, shall develop & adopt a plan to increase the use of alternative fuels
- Set goals for 2012, 2017, & 2022
- Evaluate alternative fuels using life-cycle assessment & optimize environmental & public health benefits