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Laws, Executive Orders, and Reports driving the Office of the Biomass Program:

- **Biomass Research and Development Act of 2000:** (Title III of the Agricultural Risk Protection Act of 2000, P.L.106-224) Outlines the need for biomass research, creates the Technical Advisory Committee and Biomass Research and Development Board, calls for R&D cooperation and coordination between the DOE and USDA, and sets the scope of the Biomass Initiative.
- **Executive Order 13134:** Aimed at developing and promoting biobased products and bioenergy, issued in August of 1999 with the accompanying Executive Memorandum.
- **Farm Bill 2002, Title IX** supports biomass through:
  - Federal Procurement of Biobased Products (Section 9002)
  - Biorefinery development grants
  - Biodiesel fuel education programs
  - Energy audit and renewable energy development program
  - Renewable Energy Systems and Energy Efficiency Improvements (Section 9006)
  - Biomass Research and Development Act of 2000 (Section 9008)
  - Cooperative research and extension projects
  - Continuation of the Bioenergy Program (Section 9010)
  - Biobased Products and Bioenergy Coordination Council (BBCC)
- **Healthy Forest Restoration Act of 2003, Title II (PDF 1.51 MB)**: Outlines the need for healthier forests in order to reduce the risk of catastrophic wildfires and sets out a plan for reducing this risk. The plan specifically calls for active forest and rangeland management, including biomass removal and utilization.
- ***Reliable, Affordable, and Environmentally Sound Energy for America's Future*: May 2001 Report of the National Energy Policy Development Group:** Presidential national energy policy report identifies the current state of US energy consumption, including biomass energy, and recommends ways to increase its role.

U.S. law includes a number of programs that seek to spur production and consumption of biomass fuels, energy, and products, and other renewable energy sources:

National Energy Policy Act of 1992 (or "EPAct;" Public Law 102-486-Oct. 24, 1992) contained several provisions to encourage the use of renewable energy resources:

- Renewable Energy Production Incentive (REPI): This 1.5 cent/kWh incentive was created by EPAct Section 1212 and provides incentive payments for renewable power by publicly-owned electric utilities and rural electric cooperatives.
- Renewable Energy Production Tax Credit (PTC): The PTC provided 1.8 /kWh (originally 1.5 /kWh) to private entities that generate electricity from renewable sources and sell this electricity to an unrelated party (expired on Dec 31, 2003, if not reinstated).
- Alternative Fuel Fleet Requirements: Titles III-VI of the EPAct established voluntary and regulatory programs to encourage growth of the alternative fuel market. Primarily, they deal with alternative fuel vehicles - requiring fleets to purchase a certain percentage of alternative fuel vehicles (AFVs) for their light-duty vehicles. Although the act did not effectively require actual use of the alternative fuels, a large percentage of vehicles purchased to comply with the law are flexible-fuel vehicles capable of using E-85 (70%-83% ethanol blend with gasoline).
- Credit for Biodiesel under Alternative Fuel Fleet Requirements (PDF 199 KB): The EPAct was amended in 1998 to allow covered fleets to meet a portion of their annual AFV acquisition requirements through the use of biodiesel (B100 or B20) in their heavy-duty vehicles as of January 9, 2001. The program is detailed in the Biodiesel Fuel Use Credit Interim Final Rule (PDF 144 KB).

Tax Incentives for Alcohol Fuels: Excise tax exemptions for alcohol fuels were initially established by the Energy Tax Act of 1978 with full exemption for 10% blended gasoline (gasohol) from the then 4¢-per-gallon federal gasoline excise tax, an effective subsidy of 40¢ per gallon of ethanol. A 1980 law added an alternative blenders credit of 40¢ per gallon applicable to other blend levels including E-85. Various subsequent acts raised (as high as 60¢ per gallon) or lowered and extended the subsidy. The most recent (2004) adjustment extends the exemption through 2010 at a level of 51¢ per gallon of ethanol. The 2004 enactment also changes it to a "volumetric ethanol excise tax credit" so that the exemption no longer takes money away from the Highway Trust Fund (recipient of most of the now 18.3¢ federal gasoline excise tax) and is no longer tied to particular blend levels.

The 2004 legislation also removes obstacles (ability of farmer coops to pass along savings and alternative minimum tax provisions) to use of a 1990 "small ethanol producer credit." This allows a 10¢-per-gallon tax credit for production of up to 15 million gallons of ethanol per year for facilities with less than 30-million-gallons-per-year capacity. The federal tax code also includes other tax incentives for alcohol fuels, such as an income tax deduction for alcohol-fueled vehicles and an alternative fuels production tax credit-all aimed at encouraging the substitution of renewable alcohol fuels for gasoline and diesel, to conserve petroleum in the transportation sector, and reduce dependence on petroleum imports.

Tax Incentives for Biodiesel: New with the 2004 enactment is a tax credit for biodiesel, $1.00 per gallon if made from virgin oil or 50¢ per gallon if made from recycled oil such as cooking grease. The credit is similar to the restructured ethanol subsidy so will apply to fleets exempt from gasoline excise taxes, will not affect the highway trust fund, and will not be limited in use by minimum taxes. Because biodiesel currently costs about $1.00 per gallon more than petroleum diesel, this credit should make it highly competitive. The new subsidy could therefore provide a very significant boost to the previously relatively small (estimated 30 million gallons per year in fiscal 2004) use of biodiesel.

Clean Air Act (CAA) - Oxygenated Fuel Requirements: The Clean Air Act Amendments of 1990 mandated the use of oxygenated gasoline to reduce air pollution from cars, trucks and buses in areas having high levels of either carbon monoxide or ground level ozone (smog). Because ethanol is an effective oxygenate, this provision promotes ethanol use. Many states have acted to phase out use of MTBE, the only other widely used oxygenate, because of its pollution of ground from leaky storage tanks — which has increase ethanol use. Use of oxygenated fuel will become less important for air quality as the percentage of newer vehicles with computerized air/fuel mixing increases. Most proposals for a Renewable Fuels Standard would eliminate oxygenate requirements.

Public Utility Regulatory Policies Act of 1978 (PURPA): Efforts to restructure the electric utility industry and introduce competition began with PURPA, which required utilities to buy power from independent power producers to encourage development of smaller generating facilities and to increase use of new technologies and alternate fuel sources. During the early eighties this was a major boost to biomass electricity generation. The impact subsequently waned as lower energy cost projections and interpretations of how to calculate the "avoided cost" at which the power is to be purchased reduced the price paid for the generated electricity.

Commodity Credit Corporation Bioenergy Program: This U.S. Department of Agriculture Farms Service Agency program encourages new biofuel production capacity by making cash payments to bioethanol and biodiesel producers to compensate for a portion of increased commodity purchases commensurate with their increased production. For FY 2003, $135 million was paid for 426 million gallons of increased biofuels production. The program is currently extended through 2006 by the Farm Security and Rural Investment Act of 2002.

ATF Ethanol Regulations: Authority must be obtained from the Bureau of Alcohol, Tobacco and Firearms to produce ethanol for fuel or sell denatured ethanol unfit for beverage use.

Tax-Exempt Financing: Biomass projects with more than 10% private business use may qualify for tax-exempt financing if they supply gas or electricity to an area no larger than two contiguous counties or one city and a contiguous county; or if they are solid waste disposal facilities.

Accelerated Depreciation: Certain equipment in an electric generating plant that uses biomass for fuel qualifies for accelerated depreciation over 5 years, provided the plant is a "qualifying facility" as defined by PURPA.