Alternative Transportation Fuel/Technology Plan For California (AB 1007)

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AB 1007 Legislative and Policy Context

- Directs CEC and CARB to Develop Alternative Fuel Implementation Plan.
- Outlines Plan to Fulfill Petroleum Reduction Transportation Goals Adopted by CEC and CARB.
- Consistent with Other Laws/Policy Initiatives (Climate Action Initiatives, Bioenergy Action Plan, Low Carbon Fuel Standard and AB 32).

AB 1007 Requirements

- Develop Plan to Show How Alternative Fuels Can Contribute to Petroleum Reduction Goals.
- Reflect Full Fuel Cycle Analysis of Options.
- Estimate Market Penetration For Each Fuel/Technology in 2012, 2017 and 2022 (CEC and CARB Added 2030 and 2050)

AB 1007 Requirements Cont'd

- Alternative Fuels/Technologies Included in the Analysis:
  - Natural Gas (LNG and CNG)
  - Ethanol (E85 and Low Blends)
  - GTL, CTL and BTL
  - Hydrogen
  - Propane (Derived From Natural Gas)
  - Bio-Diesel
  - Plug-In Hybrid Electric Technology and Other Electric Options
  - Dimethyl Ether (DME)

AB 1007 Requirements Cont'd

- Evaluate Options That Maximize Economic Benefits of In-State Fuel Production and Minimize Economic Costs to the State.
- Submit a Report with Recommendations to the Governor and Legislature by June 2007.

AB 1007 Report Ingredients

- Full Fuel Cycle Analysis Report.
- Scenario Storyline Report
  - Analysis of In-State Fuel Production
  - Bioenergy Technology Assessment
  - Incentive Analysis
  - Surveys (Consumer Behavior and Fleet Managers)
  - Economic Analysis
  - Market Penetration Estimates by Milestone Years
  - Scenario Portfolio Options
- Macroeconomic Analysis of Scenario Impacts on California's Economy.
- Final AB 1007 Report.

AB 1007 Report Milestones/Schedule

- Full Fuel Cycle Analysis Report –Draft Reports Available
- Draft AB 1007 Report – Mid May 2007
- CEC/CARB Workshop – May 31, 2007
- Final AB 1007 Report – June 2007 Approval By CARB and CEC

AB 1007 Relevance To Bioenergy Technologies and Biofuels

- Supply
  - In State Production of Biofuels
  - Corn Based, Cellulose and Other
- Fuels
  - Ethanol Blends (E5.7, E10, E85)
  - Biodiesel
  - Biomass To Liquid Fuels
  - Biomass/Biogas For Power Generation

AB 1007 Relevance To Bioenergy Technologies and Biofuels Cont'd

- Vehicles
  - Flexible Fuel Vehicles
  - Heavy Duty Trucks and Offroad Vehicles
  - Electric Drive Train
- Infrastructure
  - E85 Fueling Stations
  - Bioenergy Production Plants/Biorefineries
- Consumers

Initial Full Fuel Cycle Analysis Findings Relevant to Biofuels

- Biofuels Provide Largest Reductions (80% + Compared to Gasoline Depending on Pathway Intensity Since CO2 Emissions Are Recycled Through Plant Photosynthesis
- Electricity in PHEV reduces GHG by 41%
- Local Biomas Conversion (California Cellulosic Ethanol) Increases PM emissions
- Higher Ethanol Blends In Gasoline Can Reduce GHG, Criteria Pollutants and Toxic Emissions If Ethanol is Produced From Low GHG Ethanol Production Pathways
- Biodiesel (B20) Provides an Estimated GHG Benefit Compared to California Ultra Low Sulfur Diesel

We Want Your Participation

- Information to Develop/Characterize Scenarios
  - Capital Costs
  - Environmental Impacts
  - Investment Sources
  - Timing, Pacing, Frequency of Market Niche Penetration
  - Specific Solutions to Barriers
  - Need For Incentives
  - Effectiveness of Existing Incentives
  - Quantified Benefits
  - Alternative Fuels Industry Capabilities to Fulfill Growth Scenarios

We Want Your Participation Cont'd

- Peer Review of Reports.
- Participation in Workshops, Group Meetings and Individual Consultations.
- Recommendations for New Initiatives.

Contact Information

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