

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

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California Energy Commission

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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 and AB 32 and Low Carbon Fuel Standard).



# AB 1007 Requirements

- Develop Plan to Show How Alternative Fuels Can Contribute to Petroleum Reduction Goals.
  - Reduce On Road Gasoline and Diesel Demand To 15% Below 2003 Levels by 2020
  - Increase Use of Non-Petroleum Fuels To 20% of On Road Fuel Consumption by 2020 and 30% by 2030
- Reflect Full Fuel Cycle Analysis (GHGs, Criteria Pollutants, Toxics and Multi-Media Environmental Impacts) of Options.
  - No Net Material Increase in Air Pollution, Water Pollution and Damage to Human Health
- Estimate Market Penetration (Vehicles/Fuel Consumption) For Each Fuel/Technology in 2012, 2017 and 2022 (CEC and CARB will Add 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)
  - Natural Gas to Liquids (GTL), CTL and BTL
  - Hydrogen
  - Propane (Derived From Natural Gas)
  - Bio-Diesel
  - Plug-In Hybrid and Other Electric Technologies
  - Dimethyl Ether (DME)



# AB 1007 Requirements Cont'd

## Plan for Alternative Fuels Should Also:

- Evaluate Environmental and Public Health Benefits In A Cost Effective Manner
- Maximize Economic Benefits of In-State Fuel Production
- Minimize Economic Costs to the State.
- Consider Consumer Acceptance Options
- Recommend Actions (Incentives, Standards, Mandates and Programs)

Submit a Report with Recommendations to the Governor and Legislature by June 2007.



# AB 1007 Report Ingredients

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- Scenario Report
  - Scenario Options
  - Market Penetration for Milestone Years
  - Analysis of In-State Fuel Production
  - Conditions, Circumstances and Assumptions
  - Estimate of GHG and Petroleum Reduction
  - Recommended Actions
- Survey of Fleet Managers
- Full Fuel Cycle Analysis Report
- Low Carbon Fuel Standard Analysis and Compliance Schedule
- Economic Analysis of Scenario Impacts on California's Economy.
- Final AB 1007 Report.



# AB 1007 Report Milestones/Schedule

- Public Workshop and Draft Reports – May 31, 2007
- Comments On Reports Due – June 8, 2007
- CEC Adoption – June 27, 2007
- CARB Adoption – Late July 2007



# Scenario Contents

- Information to Develop/Characterize Scenarios – Describe Business Cases
  - Market Penetration Estimates in Milestone Years
  - Market Niches (Early Adopters, Market Diffusion, Mass Market Growth)
  - Barriers and Solutions to Barriers
  - Capital Costs of Vehicles, Fuel/Electricity Supply, Fueling Infrastructure
  - Comparative Fuel Costs to Gasoline/Diesel
  - Trigger Points to Spur Maximum Market Penetration (Economy of Scale Manufacturing, Fueling Station Saturation, Etc)
  - Existing and New Business Models
  - Investment Requirements and Sources of Capital
  - Timing, Pacing and Frequency of Market Niche Penetration
  - Need For Incentives, Mandates and Other Government Programs
  - Effectiveness of Existing Incentives
  - Quantified Benefits
  - Alternative Fuels Industry Capabilities to Fulfill Growth Scenarios



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