

California Energy Commission

October 13, 2008

AB 118 Funding Program Presentation
at the Southern California Clean
Vehicle Technology Expo – Ontario,
California

Legislation and Policy Context

- Pre 2007
 - Primarily Reduce Criteria Air Pollutant- On Road Regulations
- Post 2007
 - Continue to Reduce Criteria Pollutants – On Road and Off Road Regulations
 - Reduce Toxics and Soil and Water Contaminants – Regulations
 - Curb Greenhouse Gas Emissions
 - Tailpipe Regulations (AB 1493)
 - Cap and Trade Mechanism (AB 32)
 - Low Carbon Fuel Standard (Executive Order)

Legislations and Policies Cont'd

- Post 2007
 - Reduce Petroleum Dependency (AB 2076 and AB 1007) – Goals and Plan
 - Increase Alternative Fuel Use (AB 1007 Alternative Fuels Plan)
 - Provide Incentives for Clean Diesel and Alternative Fuels and Technologies (Carl Moyer, Prop 1B)
 - Extend Federal Alternative Fuel Tax Credits and Incentives and EPACT Requirements(2007 Energy Act)
 - Increase In-state Biofuel Production – Bioenergy Action Plan and Executive Order
 - Provide Incentives to Stimulate Alternative Fuel and Vehicle Use (AB 118)

AB 118 Key Provisions

- Provides CARB Funding For Two Programs (\$80 Million/Yr For 7 ½ Years)
 - Enhanced Fleet Modernization
 - Air Quality Improvement Program
- Provides CEC Funding For Alternative and Renewable Fuel and Vehicle Technology Program
 - \$120 Million/Yr For 7 ½ Years
 - Co-fund Development and Deployment of Fuel Production Plants, Fueling Infrastructure, Vehicles, Engines and Other Technology
 - Co-fund Education, Outreach and Workforce Training

Eligible Projects

- Develop and Improve Alternative and Renewable Low Carbon Fuels
- Optimize Alternative and Renewable Fuels for Existing and Developing Engine Technologies
- Produce Alternative and Renewable Low – Carbon Fuels in California
- Decrease the Overall Impact of an Alternative and Renewable Fuel's Life-cycle Carbon Footprint and Increase Sustainability

Eligible Projects

- Fuel Infrastructure, Fueling Stations and Equipment
- Improve Light-, Medium-, and Heavy Duty Vehicle Technologies
- Retrofit Medium-and Heavy-Duty On-road and Non-road Vehicle Fleets
- Infrastructure Connected with Existing Fleets, Public Transit, and Transportation Corridors
- Workforce Training Programs
- Education, Promotion and Technology Centers

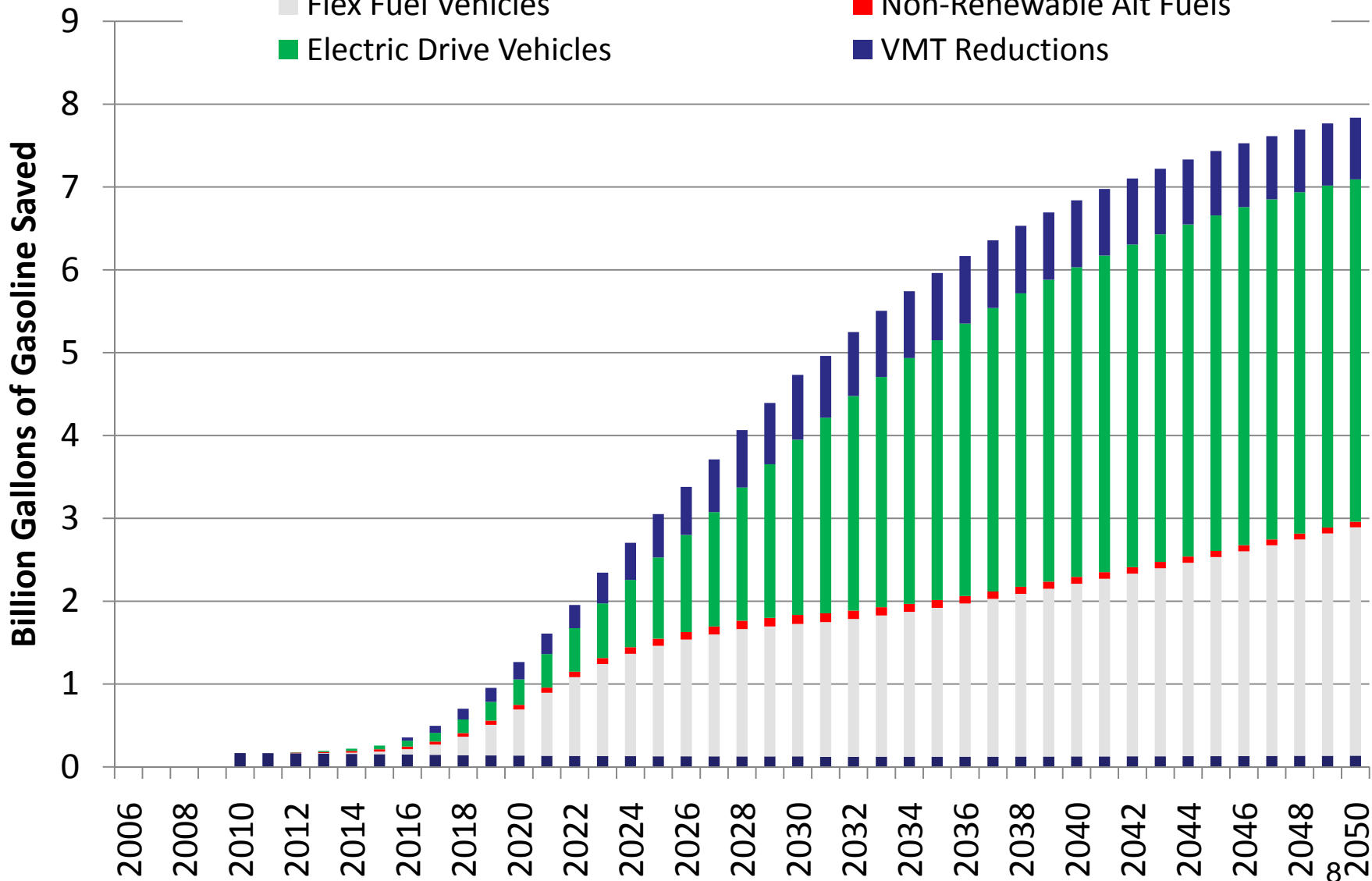
Full Fuel Cycle Comparison of Greenhouse Gas Emissions - Fuels and Pathways

Fuel	Pathway	Carbon Intensity (gCO ₂ e/MJ)
California Gasoline	CARBOB	92
Low Sulfur Diesel	Conventional Crude Oil	88
Fischer-Tropsch Diesel	Coal	167
LPG	Conventional Petroleum	77
CNG	North America Nat Gas	79
Electricity	CA Average Mix	27
Biodiesel	Midwest Soybeans	31
Ethanol	Midwest Corn	113
Ethanol	CA Corn	52
Ethanol	Cellulose	7
Ethanol	Sugar Cane	40
Hydrogen	Reformed Natural Gas	48

Source: California Energy Commission, "Well to Wheels" Full Fuel Cycle Analysis Report, June 2007.

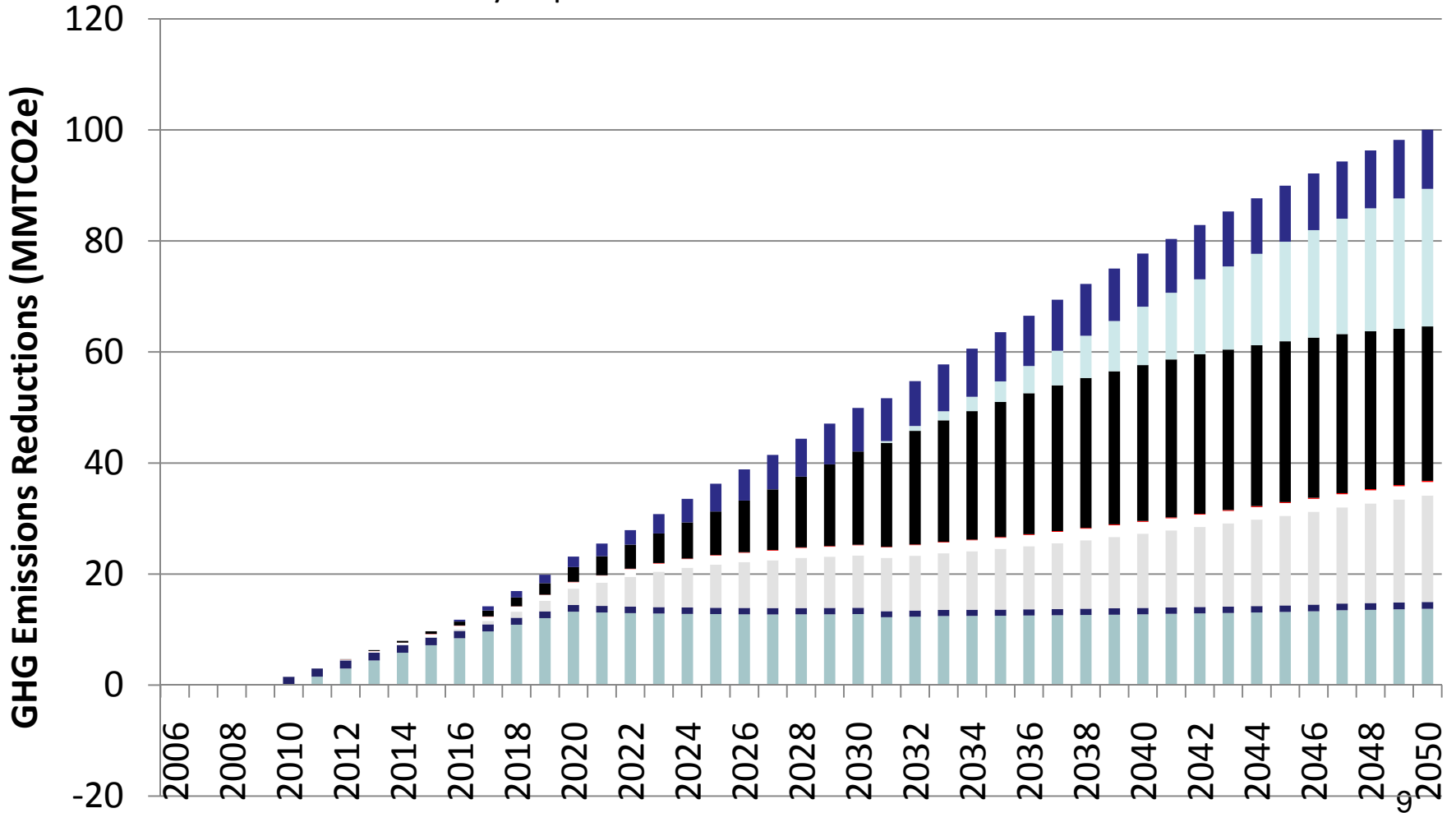
2050 Vision Light-Duty Vehicle Gasoline Reductions

- Low Carbon Fuel Standard
 - Flex Fuel Vehicles
 - Electric Drive Vehicles
- Tire Program
 - Non-Renewable Alt Fuels
 - VMT Reductions



2050 Vision Light-Duty Vehicle GHG Emissions Reductions

- Low Carbon Fuel Standard
 - ULC Vehicles
 - Non-Renewable Alt Fuels
 - Fuel Economy Improvements
- Tire Program
 - Biodiesel LDVs
 - SULC Vehicles
 - VMT Reductions



What Is Preliminary Conclusion About Funding Allocation ?

- Super Ultra Low Carbon Fuels (Electric Drive and Hydrogen – 48%
- Ultra Low Carbon Fuels (Ethanol E85 From Waste Stream – 37%
- Vehicle Efficiency – 9%
- Biodiesel – 5%
- Low Carbon Fuels (Natural Gas and Propane – 1%

Development of Initial Project Selection Criteria

- Pass Full Fuel Cycle Analysis Filter
 - Reduce Carbon Intensity At Least 10% Below Gasoline and Diesel Levels
 - Indirect Environmental Impacts May Come Into Play
- Show How Project Today Enhances, Accelerates and/or Increases Market Penetration of Optimal 2050 GHG Mix
- Pass Sustainability Goal Tests
- Provide Co-funding
- Show Need for Incentive
- Demonstrate Business Model that Leads to Alternative/Renewable Fuel and/or Vehicle Growth (i.e., Mass Market Manufacturing, Capital Cost/Differential Cost Reductions, Optimize System-Wide Business Development Chain, Attract Private Capital Investment, Reduce/Eliminate Need for Incentive in Intermediate Future)

AB 118 Program Status – 3 Parallel Activities

- Regulations to Guide Funding Disbursements
 - Sustainability Goals
 - Anti-Backsliding on Criteria Pollutants, Toxics and Multi-Media
 - Existing Regulation Restrictions
- Investment Plan
 - Identify Priorities and Co-funding Opportunities
 - Advisory Committee Insights
- Strategic Alliances, Solicitations and Funding Mechanisms

AB 118 Activity Schedule

- Regulations
 - CEC Adoption - December 2008
 - OAL Approval – April 2009
- Investment Plan
 - Revised Plan - October 2008
 - 3rd Advisory Committee Meeting – November 6, 2008 (Tentative)
 - CEC Transportation Committee Workshops – November 2008
 - CEC Adoption – December 2008
- Strategic Alliances and Solicitations
 - Meetings with Stakeholders – August-December 2008
 - Opportunity Workshops and Meetings – Fall 2008
 - Earliest Funding Awards – April 2009

Opportunities to Get Involved

- Discuss Common Ground/Rationale for Strategic Alliances
- Review/Comment on Regulations and Investment Plan
 - Funding Allocation Method
 - Sustainability Criteria
- Participate in Solicitation Activities and Criteria Development
- Develop Proposal Ideas and Discuss Them with Us.

Contact Information

Tim Olson
Fuels and Transportation
Division
California Energy
Commission
1516 Ninth Street
Sacramento, CA 95814
916-654-4528
tolson@energy.state.ca.us
www.energy.ca.gov

Other CEC Staff at the Conference

- Rhetta deMesa – (916) 653-6010,
rdmesa@energy.state.ca.us
- Aleecia Macias – (916) 654-4526,
amacias@energy.state.ca.us
- Jonah Margolis – (916) 654-4154,
jmargoli@energy.state.ca.us