Overview

• Proposals developed from 2009-10 Annual Research Plan
• Reviewed by ARB’s Research Screening Committee (RSC)
• Discussed with other funding agencies to avoid duplication
• Recommended ARB Funding: $2.5 million
• Low overhead rates negotiated with UC’s (10%)
# Research Program Areas

- Health and Exposure
- State Implementation Plan (SIP) Support
- Climate Change
PROPOSED RESEARCH

• Characterizing pollutant concentrations near roadways, $290,000, University of California, Los Angeles.

• Emissions from heavy duty diesel trucks: impacts of fleet turnover and ARB's truck and bus rule, $300,012, University of California, Berkeley.

• Impacts of PM exposures on patients with coronary artery disease, $274,931, University of California, Irvine.

• In-duct air cleaning devices: ozone emissions rates and test method, $325,000, Missouri University of Science & Technology.

OBJECTIVE & BENEFITS

• Characterize exposures and emissions that have disproportionate impact to low-income communities near ports and trafficked roads.

• Characterize response of diesel fleet emissions to regulation.

• Provide information on effects of air pollution on a sensitive population.

• Support decision-making re: ozone exposures from in-duct air cleaners.
SIP Support

PROPOSED PROJECT
- Improving emissions inventories and modeling for biogenic volatile organic compounds, University of California, Berkeley, $400,000.

OBJECTIVES & BENEFITS
- Support production of an accurate biogenic VOC inventory, which is critical to development of SIPS, since the impact of biogenic VOCs relative to manmade VOCs is increasing.
PROPOSED PROJECTS

- Inverse modeling to verify California’s GHG emissions inventory, $150,000, California State University, Hayward.
- Effects of local government actions on vehicle miles travelled (VMT), $125,000, University of California, Davis.
- Modeling impacts of advanced vehicles and fuels in the transition to a low carbon economy, $278,356, University of California, Davis.

OBJECTIVES & BENEFITS

- Improve the State’s emissions inventory for methane and other GHGs.
- Provide local and regional assistance to meet statewide targets to reduce overall VMT and GHG emissions, as mandated by SB 375 and AB 32.
- Investigate how California’s energy market might develop in response to climate change policies to support strategic planning.
PROPOSED PROJECTS

• Development of tools to measure climate impacts of residential buildings, $101,575, University of California, Berkeley.

• Voluntary behavior-based strategies to boost energy savings in commercial buildings, $134,981, University of California, Davis.

• Investigation of climate change impact of diesel emissions controls, $114,751, University of California, San Diego.

OBJECTIVES & BENEFITS

• Assist ARB in tracking GHG emission reductions from green buildings.

• Develop cost-effective strategies to bridge the gap between potential and actual commercial building energy savings.

• Probe regional climate response to black carbon emissions in the State, to serve as a basis for policy and control strategies.
Recommendation

Approve
Research Resolutions