

STATE OF CALIFORNIA
Budget Change Proposal - Cover Sheet
 DF-46 (REV 08/15)

Fiscal Year 2016/17	Business Unit 8570	Department Food and Agriculture	Priority No. 3
Budget Request Name 8570-403-BCP-DP-2016-MR		Program 6575 – MARKETING, COMMODITIES AND AGRICULTURE SERVICES	Subprogram

Budget Request Description
 Alternative Fuels Quality and Oversight Program

Budget Request Summary

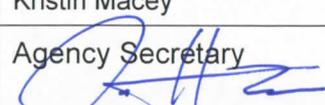
The California Department of Food and Agriculture requests \$1.054 million Cost of Implementation Account, Air Pollution Control Fund (COIA) in Fiscal Year (FY) 2016-17 and \$1.396 million COIA annually thereafter to establish the Alternative Fuels Quality and Oversight Program to regulate alternative transportation fuels as required by existing law and to meet the purposes of the California Global Warming Solutions Act of 2006. The funds will support 5.8 existing, but unfunded, positions in FY 2016-17 and an additional 2.5 existing, but unfunded, positions annually thereafter.

Requires Legislation <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Code Section(s) to be Added/Amended/Repealed	
Does this BCP contain information technology (IT) components? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes, departmental Chief Information Officer must sign.</i>	Department CIO	Date

For IT requests, specify the date a Special Project Report (SPR) or Feasibility Study Report (FSR) was approved by the Department of Technology, or previously by the Department of Finance.

FSR SPR Project No. Date:

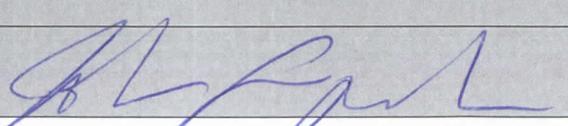
If proposal affects another department, does other department concur with proposal? Yes No
Attach comments of affected department, signed and dated by the department director or designee.

Prepared By Kevin Schnepf	Date 4/22/2016	Reviewed By Kristin Macey	Date 4/22/2016
Department Director 	Date 4/22/16	Agency Secretary 	Date 4/22/16

Department of Finance Use Only

Additional Review: Capital Outlay ITCU FSCU OSAE CALSTARS Dept. of Technology

BCP Type: Policy Workload Budget per Government Code 13308.05

PPBA 	Date submitted to the Legislature 8/13/16
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BCP Fiscal Detail Sheet

BCP Title: Alternative Fuels Quality and Oversight Program

DP Name: 8570-403-BCP-DP-2016-MR

Budget Request Summary

	FY16					
	CY	BY	BY+1	BY+2	BY+3	BY+4
Salaries and Wages						
Earnings - Permanent	0	371	508	508	508	508
Total Salaries and Wages	\$0	\$371	\$508	\$508	\$508	\$508
Total Staff Benefits	0	189	263	263	263	263
Total Personal Services	\$0	\$560	\$771	\$771	\$771	\$771
Operating Expenses and Equipment						
5320 - Travel: In-State	0	2	3	3	3	3
5324 - Facilities Operation	0	27	30	30	30	30
5326 - Utilities	0	37	40	40	40	40
5342 - Departmental Services	0	208	285	285	285	285
5346 - Information Technology	0	0	5	5	5	5
5368 - Non-Capital Asset Purchases - Equipment	0	170	187	187	187	187
539X - Other	0	50	75	75	75	75
Total Operating Expenses and Equipment	\$0	\$494	\$625	\$625	\$625	\$625
Total Budget Request	\$0	\$1,054	\$1,396	\$1,396	\$1,396	\$1,396

Fund Summary

Fund Source - State Operations						
3237 - Cost of Implementation Account, Air Pollution Control Fund	0	1,054	1,396	1,396	1,396	1,396
Total State Operations Expenditures	\$0	\$1,054	\$1,396	\$1,396	\$1,396	\$1,396
Total All Funds	\$0	\$1,054	\$1,396	\$1,396	\$1,396	\$1,396

Program Summary

Program Funding						
6575 - Marketing; Commodities and Agricultural Services	0	1,054	1,396	1,396	1,396	1,396
Total All Programs	\$0	\$1,054	\$1,396	\$1,396	\$1,396	\$1,396

Personal Services Details

Salaries and Wages	CY	BY	BY+1	BY+2	BY+3	BY+4
0756 - Environmental Program Mgr I (Supvry) (Eff. 07-01-2016)	0	37	37	37	37	37
0762 - Environmental Scientist (Eff. 07-01-2017)	0	111	221	221	221	221
0765 - Sr Envirnal Scientist (Spec) (Eff. 07-01-2016)	0	151	151	151	151	151
5157 - Staff Svcs Analyst (Gen) (Eff. 07-01-2017)	0	46	46	46	46	46
8612 - Special Investigator (Eff. 07-01-2016)	0	26	53	53	53	53
Total Salaries and Wages	\$0	\$371	\$508	\$508	\$508	\$508
Staff Benefits						
5150350 - Health Insurance	0	52	74	74	74	74
5150500 - OASDI	0	28	39	39	39	39
5150600 - Retirement - General	0	93	128	128	128	128
5150800 - Workers' Compensation	0	16	22	22	22	22
Total Staff Benefits	\$0	\$189	\$263	\$263	\$263	\$263
Total Personal Services	\$0	\$560	\$771	\$771	\$771	\$771

Analysis of Problem

A. Budget Request Summary

The California Department of Food and Agriculture requests \$1.054 million Cost of Implementation Account, Air Pollution Control Fund (COIA) in Fiscal Year (FY) 2016-17 and \$1.396 million COIA annually thereafter to establish the Alternative Fuels Quality and Oversight Program to regulate alternative transportation fuels as required by existing law and to meet the purposes of the California Global Warming Solutions Act of 2006 (AB 32). The funds will support 5.8 existing, but unfunded, positions in FY 2016-17 and an additional 2.5 existing, but unfunded, positions annually thereafter. The Department will allocate 0.3 of an existing filled Environmental Program Manager I (Supervisory) position in FY 2016-17 (and ongoing); as well 0.5 of an existing filled Special Investigator (FY 2016-17 only). The Department will utilize existing, but unfunded, positions to hire 2.0 Senior Environmental Scientists (Specialists), 2.0 Environmental Scientists, 1.0 Staff Services Analyst in FY 2016-17; and in FY 2017-18 hire 1.0 Special Investigator and an additional 2.0 Environmental Scientists to support marketplace growth for a total of 8.3 allocated positions in FY 2017-18 and thereafter.

Significant increases in the use of alternative transportation fuels are essential if California is to achieve its goals of reducing greenhouse gas (GHG) emissions, improving air quality, and increasing energy security by the year 2020 and thereafter. The use of zero emission and alternative low-carbon transportation fuels is an integral part of the state's plan to meet its energy, environmental, and air quality goals through 2050. In the 2014 Update to the Air Resources Board's (ARB) Scoping Plan, which identifies activities needed to meet the purposes of AB 32, ARB identified the implementation of alternative fuel standards as a critical activity to support the state's GHG reduction programs. The Department is responsible for the oversight of motor vehicle fuel quality to ensure economic marketplace stability and provide safety in the operation of vehicles on public roads. Hydrogen and natural gas are examples of zero emission and alternative fuels already in the marketplace. The continued development and growth of these fuels is dependent upon significant state agency investments. To date, state level investments do not include permanent funding for fuel quality sampling and testing of zero emission and low-carbon alternative fuels. This is necessary to provide consumer protection, foster fair competition, and facilitate economic growth and trade. As the marketplace for alternative fuels matures, the Department will seek additional funding opportunities.

B. Background/History

The AB 32 Mandate and the Department's Programs

Several statutory and executive directives support this request. In 2006, AB 32 was enacted which set the 2020 GHG emissions reduction goal into law. It directed ARB to establish a comprehensive program to reduce GHG emissions from all sources throughout the state. AB 32 is consistent with the 2020 emission target directed by Executive Order S-3-05 of reducing GHG emissions to 1990 levels, and directs that the state maintain and continue reductions. That executive order also establishes a target of 80 percent below 1990 levels by 2050. A second Executive Order, B-30-15, has recently established a 2030 target of 40 percent below 1990 levels by 2030.

Supporting the state's targets, Executive Order B-16-2012, directed all state entities to support and facilitate the rapid commercialization of zero-emission vehicles. It further directed state entities to establish benchmarks for zero-emission vehicle infrastructure to support one million vehicles by 2020 and have 1.5 million zero-emission vehicles on California roads by 2025.

ARB is charged with developing "scoping" plans to guide the state's implementation of its GHG program. Each scoping plan is to contain recommendations on measures and programs that are needed to "facilitate the achievement of the maximum technologically feasible and cost-effective reductions of greenhouse gas emissions" consistent with AB 32's purposes (Health & Safety Code § 38561). ARB produced an initial Scoping Plan and a Scoping Plan Update, in 2014.

Analysis of Problem

In that Plan, ARB identified transportation and vehicle-fuel related measures, including ARB's Low Carbon Fuel Standard (LCFS), initially directed by Executive Order S-01-07, and later enacted into law. To implement vehicle emissions reductions via the LCFS and by many other measures, ARB recognized the need for fuel performance specifications. Specifically, in the 2014 Scoping Plan Update, ARB explained that achieving GHG and air quality goals "require a renewable portfolio of transportation fuels—including electricity and hydrogen—well beyond the current policy trajectories."¹ The Department's work on the "development and adoption of performance and quality standards" was specifically identified.²

The partnership with ARB is long-standing. The program originally arose from a 2005 statute, SB 76, that required the Department to work with ARB to "establish specifications for hydrogen fuel for use in internal combustion engines." (Cal. Bus. & Prof. Code § 13446 (2006)). A 2015 statute, AB 808, revised this direction to require the Department to establish standards for "alternative fuels" generally. *See id.* (2016). Alternative fuels are defined to include hydrogen, biofuels, and electricity, among others. (*See id.* § 13400(b)).

Programs implementing AB 32 mandates, and especially those conducted to meet the needs of ARB programs or identified in the ARB Scoping Plan, are generally eligible to receive AB 32 Cost of Implementation Fee funding.

ARB adopted the AB 32 Cost of Implementation Fee Regulation which became effective July 17, 2010. The fees collected are used to fund costs directly related to state agencies' development, administration and implementation of AB 32 programs that reduce the state's GHG emissions and improve air quality – such as programs that improve energy efficiency in households and buildings, vehicles, and provide lower-carbon transportation fuels.

Program Implementation Background

In 2011, the Department's Division of Measurement Standards established a laboratory for the analysis of hydrogen fuel for fuel cell electric vehicles (FCEV) using a \$3.5 million interagency agreement from the California Energy Commission (CEC). With CEC funding, the Department established interim fuel quality specifications, developed and validated laboratory test methods for hydrogen analysis, worked with consensus standards organizations to formally adopt fuel quality specifications, and standardized procedures for the sampling and testing of hydrogen fuel.

Prior to the CEC grant, there was no funding and virtually no activity by the state in the development of standards or testing of hydrogen as a zero-emission motor vehicle fuel. The technology was in its earliest phase of development. Upon the completion of the CEC grant for hydrogen research, the Department received one-time \$3.3 million in funds from Cap-and-Trade auction proceeds to support the Alternative and Renewable Fuels Program which performed pre-market research and development of alternative motor vehicle fuels that can be derived from agricultural waste.. Funding for this program was discontinued after FY 2014-15.

Stringent quality standards are required for hydrogen fuel to prevent damage to the catalyst used in fuel cells. Sales and leasing of zero-emission FCEVs has already begun and the need for consumer and business protection is immediate. The effective oversight of hydrogen fuel quality is essential to the acceptance of FCEVs by California car buyers. Manufacturers expect fuel quality standards will be enforced to ensure the safety and reliability of their vehicles.

C. State Level Considerations

Supporting the adoption and use of alternative fuels that reduce GHGs is consistent with the Department's 2013 – 2018 Strategic Plan. Additionally, the 2012 California Agricultural Vision strategies include: expanded environmental stewardship; promotion of renewable energy and substitutes for petroleum-based

¹ See ARB, First Scoping Plan Update (2014) at 49.

² *Id.* at 55. See also *id.*, Appendix C at 36 (mentioning Department work).

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products; adaptations to mitigate climate change; and the promotion of agricultural research to meet 21st century challenges.

Supporting alternative fuels is also critical to the purposes of AB 32. In enacting AB 32, the Legislature declared that, “global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California,” and that it will have “detrimental effects on some of California’s largest industries, including agriculture.” As ARB identified in its 2014 Scoping Plan Update, discussed above, the Department’s expansion of its original core mission (prompted by statutory changes and recognized in the Scoping Plan as supporting AB 32’s goals) is critical to implementing ARB’s programs, including its LCFS and other alternative-fuels-promoting efforts. Simply put, alternative fuels must be of consistent high quality to be successfully introduced into the market. The Department’s Alternative Fuels Quality and Oversight Program fills this critical role.

Ensuring these programs move forward will serve many positive purposes. The combustion of conventional fuels produces toxic air pollutants such as nitrogen oxides, volatile organic compounds (ozone precursors), and particulates. GHGs such as carbon dioxide and methane contribute to global warming and climate change. Currently, the transportation sector is the biggest contributor (36 percent) to California’s GHG emissions from the combustion of high-carbon, petroleum-based fuels. Transforming California’s transportation systems towards zero emission and low carbon alternative fuels is a key part of the state’s strategy to mitigate GHG emissions, improve air-quality, leverage renewable energy sources, and reduce petroleum consumption. California’s climate change and clean air goals (AB 32 and other laws) will not be achieved without an effective Alternative Fuels Quality and Oversight Program. Department staff are recognized throughout the state and nationally for their expertise in zero emission and alternative fuels and associated fueling technology.

D. Justification

California has established both short-term and long-term goals for improving air quality, reducing petroleum dependence, and lowering emissions of GHGs. For example, hydrogen, when used as a transportation fuel in fuel cell vehicles, generates no tailpipe emission of GHGs or any other climate pollutants. Additionally, ARB’s LCFS program mandates that transportation fuel providers reduce the carbon intensity of fuels used in the state, which will drive market demand for zero emission and low carbon alternative fuels. California Business and Professions Code (BPC), Division 5, Chapter 14, mandates the Department establish and enforce the fuel quality for any fuel sold at retail, which will provide safe and reliable fuel to motorists, and protect them from substandard fuel which damage vehicle engines and result in costly repairs. The BPC also requires the Department to enforce advertising, labeling, and method of sale requirements, which provide value comparison to consumers and allow for fair competition among businesses vying for market share.

The rapid expansion of fueling stations for retail hydrogen and other alternative fuels, e.g., natural gas, in California brings to bear a significant responsibility on the state to provide the essential regulatory oversight to ensure that early adopters of zero emission and alternative fuels technology enjoy the same level of safety and reliability that traditional transportation users are accustomed to. To this end, the Department requests permanent, ongoing funding to fulfill its duty of regulatory oversight of alternative and zero emission fuels.

Significant increases in the use of alternative transportation fuels are crucial if California is to achieve its goals of reducing GHG emissions, improving air quality, and increasing energy security. The Department is responsible for the oversight of motor vehicle fuel quality. However, there is no permanent funding source for fuel quality sampling and testing of zero emission alternative fuels such as hydrogen. The Department is responsible for establishing and enforcing quality standards for specified motor vehicle fuels and automotive products produced or sold in California. Products are sampled and tested in the Department’s laboratories to verify that they meet the quality, performance and drivability standards established in state law. The Department also regulates the advertising and labeling of specified motor vehicle fuels and

Analysis of Problem

automotive products sold at retail in California. No other state agency has the authority to regulate weights and measures laws, advertising, labeling, and fuel quality requirements for motor vehicle fuels and automotive products.

Hydrogen fuel cell vehicles require extremely pure fuel to ensure safe and reliable operation. The sampling and testing of hydrogen fuel will assure consumers and vehicle manufacturers that their investments are being protected through regular compliance testing of fuel quality. Station visits by Department staff also ensures compliance with price sign advertising, labeling, and method of sale requirements.

For these reasons, ARB has recognized that the Department's Alternative Fuels Quality and Oversight Program, and the attendant addition of alternative fuel testing to its core responsibilities, is critical to meeting the goals of AB 32. The 2014 Scoping Plan Update, adopted after extensive interagency discussion and a wide-ranging public process, ratified this recognition, explicitly recognizing alternative fuels specification implementation as critical to AB 32's purposes. The AB 32 COIA is explicitly designed to fund state agency activities "for the purposes" of AB 32 (H&SC § 38597; see also 17 CCR § 95203 (regulatory statement of this principle)). Because the Department proposed Alternative Fuels Quality and Oversight Program has been identified as serving the purposes of AB 32 in the Scoping Plan, as an expanded role for the Department designed by the Legislature to support AB 32 programs, it is appropriate for COIA funding.

Without a dedicated, stable and permanent source of funding, the Department will be unable to fulfill its legislative mandate to oversee and regulate alternative motor vehicle fuels in California. Without the Department's Alternative Fuels Quality and Oversight Program of fuel quality testing, the possibility of substandard fuels offered for sale in California increases significantly. Automobile manufacturers will be reluctant to offer alternative fuel vehicles if they are not assured of a fuel supply that meets quality specifications. For example, FCEVs can be irreversibly damaged by substandard fuel, leading to very expensive repairs. Public acceptance of this new, clean transportation technology is contingent upon the experience of the early users. A program of fuel quality sampling and testing will help California establish this zero emission vehicle platform as a safe and reliable alternative to petroleum-based transportation.

Requested funding will provide staffing levels, necessary equipment and associated operating supplies necessary to support regulatory marketplace oversight. This sampling and testing program will also provide essential fuel quality data to support industry and state level research efforts that support the expansion and adoption of zero emission and low carbon fueled vehicle technology. Funding for the Alternative Fuels Quality and Oversight Program will not alter any existing law nor create any new law(s).

The Department recognizes that the COIA resources are limited as they are used to fund several AB 32 programs. For this reason, the Department is also working on regulations to increase its own statutory motor oil fee from \$0.04 to \$0.05, which is the statutory cap (See Business and Professions Code §§ 13430-13434). If approved, the increased fee is anticipated to provide approximately \$900,000 Food and Agriculture Fund for the Alternative Fuels Quality and Oversight Program. This request seeks COIA monies to make up the incremental difference necessary to implement the Alternative Fuels Quality and Oversight Program. Moreover, the Department anticipates that alternative fuels will be increasingly able to support fees funding its testing program over time, as the market matures. The Department intends to work with the Legislature to identify options for direct funding for its programs via an alternative fuels fee when the industry is sufficiently able to support such a fee, likely within the next five years.

E. Outcomes and Accountability

The Department will enforce advertising, labeling, method of sale, and fuel quality standards for alternative and zero emission fuels. The Department will: sample and test fuels for conformance to specifications; collect fuel quality compliance data; oversee methods of sale, price sign advertising and labeling of fuels; and collaborate with ARB and CEC in the analysis and reporting of alternative fuels dispensed and used in California. Annual Alternative Fuels Quality and Oversight Program summary reports will detail the sampling, testing, and marketplace oversight activities conducted by the Department.

Analysis of Problem

F. Analysis of All Feasible Alternatives

Alternative 1: Approve \$1.054 million in COIA authority in FY 2016-17, and \$1.396 million COIA in FY 2017-18 and ongoing to establish the Program and use existing position authority to support the regulatory activities delineated in the BPC, Division 5, Chapter 14.

Advantages: This alternative provides the Department with the necessary resources to meet its statutorily required activities for alternative and zero emission transportation fuels. Oversight of commercial retail sales of alternative fuels will protect consumers and automotive manufacturers, prevent fraud, and ensure an equitable marketplace.

Disadvantages: This alternative would obligate the ARB to use the COIA to fund the Department's activities essential to supporting alternative and zero emission transportation fuels.

Alternative 2: Deny the request for new COIA authority and allow other agencies or private entities to accomplish Alternative Fuels Quality and Oversight Program objectives.

Advantages: COIA funding could be allocated towards another function.

Disadvantages: No other state agency has the legal authority to establish and enforce fuel quality standards, advertising, labeling, and method of sale requirements in California. No other state agency has the established laboratory and testing equipment to analyze zero emission and alternative fuels, including hydrogen and natural gas. Currently, only Department staff have extensive knowledge and expertise in alternative and zero emission fuel quality sampling and testing and regulatory oversight of retail fuels that non-state organizations in California do not possess.

Alternative 3: Deny the request for new COIA authority and do nothing.

Advantages: There would be no increased obligation to the COIA.

Disadvantages: There would not be any state regulatory and oversight activity to protect motorists driving zero emission and alternative fuel vehicles. There will be significant risk to the public and private entities (state, auto manufacturers, station developers, fuel providers, etc.) who have invested in zero emission and alternative fuels technology. The state and Department could lose its status as subject matter experts in alternative and zero-emission fuels and associated fueling technology.

Alternative 4: Assess a fee on zero emission and alternative fuel producers, distributors and retailers to fund program activities.

Advantages: There would be no increased obligation to the COIA.

Disadvantages: The zero emission and alternative fuel marketplace is in its infancy and operates with significant financial support from state and federal agencies. Taxing a developing industry at this early stage would eliminate marketplace viability, and private sector investment and involvement would diminish or cease. The state would fail to fulfill its commitment to automobile manufacturers and technology providers to support marketplace and infrastructure development. Although the Department intends to explore this option further as the industry matures, it is not appropriate at this time.

G. Implementation Plan

July 2016 – The Department will allocate 0.3 of an existing filled Environmental Program Manager I (Supervisory) and 0.5 of a Special Investigator (FY 2016-17 only). The Department will also recruit and hire 2.0 Senior Environmental Scientists, 2.0 Environmental Scientists, and 1.0 Staff Services Analyst to support the program.

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August to December 2016 – The Department will begin sampling and testing of hydrogen fuel dispensed in California in its Sacramento laboratory. The Department will establish sampling and testing capability of hydrogen and other alternative fuels in its Anaheim laboratory to support regional and responsive oversight of the retail alternative fueling infrastructure located in southern California.

January 2017 and ongoing – The Department will collect and share data on alternative fuels dispensed in the state with the Governor's Office, ARB, CEC, and other agencies impacted by zero emission and alternative fuel vehicle implementation and use.

July 2017 – Because the existing 0.5 Special Investigator will only be allocated to the Alternative Fuels Quality and Oversight Program in FY 2016-17, the Department will have sufficient funding in FY 2017-18 to recruit and hire 1.0 Special Investigator. An additional 2.0 Environmental Scientists will be hired to support regulatory oversight in connection with marketplace growth.

H. Supplemental Information

None Facility/Capital Costs Equipment Contracts Other

The Department will purchase necessary scientific equipment and supplies to support the field sampling and laboratory testing activities.

I. Recommendation

The Department recommends the approval of Alternative #1, provide \$1.054 million COIA in FY 2016-17, \$1.396 million COIA in FY 2017-18 and ongoing, to establish the Alternative Fuels Quality and Oversight Program and use existing position authority to support the regulation of alternative fuels. The Department's oversight of commercial retail sales of zero emission and other alternative fuels will protect consumers and automobile manufacturers, prevent fraud, and ensure an equitable marketplace. The Department's data collection and sharing will provide valuable information to the state that will support strategy decisions on future transportation policy and GHG reduction technology.