

CONTRACT REQUEST FORM (CRF)



A) New Agreement 800-14-005 (To be completed by CGL Office)

B) Division	Agreement Manager:	MS-	Phone
800 Electricity Supply Analysis Division	Aniss Bahreinian	22	916-653-0381

C) Contractor's Legal Name	Federal ID Number
Resource Systems Group	02-0405879

D) Title of Project
2015-2017 California Vehicle Survey

E) Term and Amount	Start Date	End Date	Amount
	6 / 30 / 2015	3 / 30 / 2017	\$ 995,525

F) Business Meeting Information

Operational agreement (see CAM Manual for list) to be approved by Executive Director

ARFVTP agreements under \$75K delegated to Executive Director.

Proposed Business Meeting Date	6 / 10 / 2015	<input type="checkbox"/> Consent	<input checked="" type="checkbox"/> Discussion
Business Meeting Presenter	Aniss Bahreinian	Time Needed:	5 minutes

Please select one list serve. Transportation (General Trans / Petroleum Issues)

Agenda Item Subject and Description

Possible resolution approving Agreement 800-14-005 with Resource Systems Group, Inc. for a \$995,525 contract to design and conduct surveys of California commercial and residential vehicle owners, as well as plug-in electric vehicle owners to assess consumer behavior and preferences for different conventional and alternative fuel vehicle technologies. The survey data will be used to build vehicle demand and utilization models for use in forecasting light duty vehicle demand and fuel use.

G) California Environmental Quality Act (CEQA) Compliance

1. Is Agreement considered a "Project" under CEQA?

Yes (skip to question 2) No (complete the following (PRC 21065 and 14 CCR 15378)):

Explain why Agreement is not considered a "Project":

Agreement will not cause direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because it involves only survey of people and vehicles.

2. If Agreement is considered a "Project" under CEQA:

a) Agreement **IS** exempt. (Attach draft NOE)

Statutory Exemption. List PRC and/or CCR section number: _____

Categorical Exemption. List CCR section number: _____

Common Sense Exemption. 14 CCR 15061 (b) (3)

Explain reason why Agreement is exempt under the above section: _____

b) Agreement **IS NOT** exempt. (Consult with the legal office to determine next steps.)

Check all that apply

<input type="checkbox"/> Initial Study	<input type="checkbox"/> Environmental Impact Report
<input type="checkbox"/> Negative Declaration	<input type="checkbox"/> Statement of Overriding Considerations
<input type="checkbox"/> Mitigated Negative Declaration	

H) List all subcontractors (major and minor) and equipment vendors: (attach additional sheets as necessary)

Legal Company Name:	Budget	SB	MB	DVBE
Corey Canapary & Galanis	\$ 204,649	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Source One Communications	\$ 70,279	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	\$ 0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I) List all key partners: (attach additional sheets as necessary)

Legal Company Name:

**J) Budget Information**

Funding Source	Funding Year of Appropriation	Budget List No.	Amount
State - ERPA	14-15	600.000FL	\$645,525
State - ERPA	14-15	100.151	\$350,000
Funding Source			\$
Funding Source			\$
Funding Source			\$
R&D Program Area: <input type="text"/> Select Program Area		TOTAL:	\$995,525
Explanation for "Other" selection			
Reimbursement Contract #:		Federal Agreement #:	

K) Contractor's Administrator/ Officer

Contractor's Administrator/ Officer				Contractor's Project Manager			
Name:	Robert Hewett			Name:	Marc Aquila		
Address:	55 Railroad Row			Address:	55 Railroad Row		
City, State, Zip:	White River Junction, VT 05001			City, State, Zip:	White River Junction, VT 05001		
Phone:	802-295-4999	Fax:	802-295-1006	Phone:	802-359-6444	Fax:	802-295-1006
E-Mail:	robert.hewett@rsginc.com			E-Mail:	marc.aquila@rsginc.com		

L) Selection Process Used (For amendments, address amendment exemption or NCB, do not identify solicitation type of original agreement.)

Solicitation RFP Solicitation #: RFP-14-801 # of Bids: 3 Low Bid? No Yes
 Non Competitive Bid (Attach CEC 96)
 Exempt Select Exemption (see instructions)

M) Contractor Entity Type

- Private Company (including non-profits)
 CA State Agency (including UC and CSU)
 Government Entity (i.e. city, county, federal government, air/water/school district, joint power authorities, university from another state)

N) Is Contractor a certified Small Business (SB), Micro Business (MB) or DVBE?

No Yes
 If yes, check appropriate box: SB MB DVBE

O) Civil Service Considerations

- Not Applicable (Agreement is with a CA State Entity or a membership/co-sponsorship)
 Public Resources Code 25620, et seq., authorizes the Commission to contract for the subject work. (PIER)
 The Services Contracted:
 are not available within civil service
 cannot be performed satisfactorily by civil service employees
 are of such a highly specialized or technical nature that the expert knowledge, expertise, and ability are not available through the civil service system.
 The Services are of such an:
 urgent
 temporary, or
 occasional nature
 that the delay to implement under civil service would frustrate their very purpose.

Justification:

Conducting complex surveys of this kind requires organizational infrastructure and resources currently not available within civil services.

P) Payment Method

- A. Reimbursement in arrears based on:
 Itemized Monthly Itemized Quarterly Flat Rate One-time
 B. Advanced Payment
 C. Other, explain:

Q) Retention

1. Is Agreement subject to retention? No Yes
 If Yes, Will retention be released prior to Agreement termination? No Yes



R) Justification of Rates

The Energy Commission issued a RFP for this contract and received three bids. After preference points were applied to all bidders, the lowest bid won the award.

S) Disabled Veteran Business Enterprise Program (DVBE)

1. Exempt (Interagency/Other Government Entity)
2. Meets DVBE Requirements DVBE Amount:\$ 70,279 DVBE %: 7%
 - Contractor is Certified DVBE
 - Contractor is Subcontracting with a DVBE: Source One Communications
3. Contractor selected through CMAS or MSA with no DVBE participation.
4. Requesting DVBE Exemption (attach CEC 95)

T) Miscellaneous Agreement Information

1. Will there be Work Authorizations? No Yes
2. Is the Contractor providing confidential information? No Yes
3. Is the contractor going to purchase equipment? No Yes
4. Check frequency of progress reports
 Monthly Quarterly Other... _____
5. Will a final report be required? No Yes
6. Is the Agreement, with amendments, longer than a year? If yes, why? No Yes
 This is a multi-phase survey requiring work to be completed in sequence. Each phase takes multiple months.

U) The following items should be attached to this CRF (as applicable)

- | | | |
|---|---|--|
| 1. Exhibit A, Scope of Work | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> Attached |
| 2. Exhibit B, Budget Detail | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> Attached |
| 3. CEC 96, NCB Request | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached |
| 4. CEC 30, Survey of Prior Work | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> Attached |
| 5. CEC 95, DVBE Exemption Request | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached |
| 6. CEQA Documentation | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached |
| 7. Resumes | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> Attached |
| 8. CEC 105, Questionnaire for Identifying Conflicts | | <input checked="" type="checkbox"/> Attached |

Agreement Manager

Date

Office Manager

Date

Deputy Director

Date

EXHIBIT A Scope of Work

TASK LIST

Task #	Task Name
1	Agreement Management
2	Work Plan
3	Survey Review, Website, and database Design Development
4	Survey and Sample Design
5	PEV Owner Survey
6	Focus Group and Survey Pretests
7	Survey Recruitment, Implementation, Response Categories, and Data Correction
8	Analysis of Data Quality and Survey Results
9	Logistic Regression Analysis

ACRONYMS/GLOSSARY

Specific acronyms and terms used throughout this scope of work are defined as follows:

Acronym	Definition
BEV	Battery Electric Vehicle
CAM	Commission Agreement Manager
CNG	Compressed Natural Gas Vehicle
DynaSim	Dynamic Transportation Simulation Software
eVMT	Electric Vehicle Miles Traveled
FCV	Hydrogen Fuel Cell Vehicle Flex-Fuel Vehicle
FFV	Flex-Fuel Vehicle
IEPR	Integrated Energy Policy Report
LDV	Light Duty Vehicle
MPG	Miles Per Gallon
PEV	Plug in Electric Vehicle
PHEV	Plug-in Hybrid Electric Vehicle
RP	Revealed Preferences
SP	Stated Preferences
VMT	Vehicle Miles Traveled

BACKGROUND

The Energy Commission is directed by Public Resources Code (PRC) Section 25301 to prepare a forecast of transportation fuel demand to assess the need for resource additions, efficiency, and conservation with consideration for all aspects of energy industries and markets essential for the state economy, general welfare, public health and safety, energy diversity, and protection of the environment. PRC Section 25304 specifies that the Energy Commission transportation forecast shall include:

- Assessment of trends in transportation fuels, technologies, and infrastructure supply and demand and the outlook for wholesale and retail prices for petroleum and alternative transportation fuels under current market structures and expected market conditions;
- Forecasts of statewide and regional transportation energy demand, both annual and seasonal, and the factors leading to projected demand growth including, but not limited to, projected population growth, urban development, vehicle miles traveled, the type, class, and efficiency of personal vehicles and commercial fleets, and shifts in transportation modes;
- Evaluation of the sufficiency of transportation fuel supplies, technologies, and infrastructure to meet projected transportation demand growth;
- Evaluation of alternative transportation energy scenarios, in the context of least environmental and economic costs, to examine potential effects of alternative fuels usage, vehicle efficiency improvements, and shifts in transportation modes on public health and safety, the economy, resources, the environment, and energy security; and
- Examination of the success of introduction, prices, and availability of advanced transportation technologies, low- or zero-emission vehicles, and clean-burning transportation fuels, including their potential future contributions to air quality, energy security, and other public interest benefits.

The Energy Commission uses these forecasts and assessments to make recommendations for improving the efficiency of transportation energy use, reduce dependence on petroleum fuels, decrease environmental impacts from transportation energy use, contribute to traffic congestion reduction, promote economic development, and enhance energy diversity and security.

The Energy Commission prepares the forecast and assessment of transportation fuel demand, the outlook for retail fuel prices, and the analysis of shifts in fuel types, vehicle types, and other factors based on analysis of data collected from different sources. The Energy Commission uses the CVS data in particular to assess current vehicle ownership, the factors current and future vehicle owners consider when purchasing a new vehicle, and the likelihood that they would operate an alternative fuel vehicle or other advanced technology vehicle.

As part of the requirements for the PRC section 25304, the Energy Commission periodically conducts independent surveys of California LDV consumers in both the residential and commercial sectors. Changes in the market conditions, consumer awareness, and technology and manufacturer offerings will change consumer preferences. Repeating the survey allows the Energy Commission to capture the shift in consumer preferences and improve the accuracy of forecasts. Because the 2011-2013 CVS vehicle survey coincided with the California Department of Transportation's (Caltrans) 2010-2013 California Household Travel Survey (CHTS), these two surveys were integrated for the first time. This resulted in a rich data set that can be used for integrated modeling of both travel and vehicle choices of the households, but it also resulted in some differences in household survey and sample designs, as compared with the 2009 survey.

The 2013 CVS household vehicle survey resulted in about 3,500 completed stated preference household surveys. In the 2009 CVS, almost half of the participants who completed the household revealed preferences (RP) survey chose to participate in the stated preferences (SP) survey, resulting in about 3,200 completed SP surveys. The ratio of SP to RP survey was raised in the 2013 survey, when the two phases of survey (RP and SP) were combined into one for web-only participants.

The 2009 CVS commercial vehicle survey resulted in 1800 completed stated preferences surveys and the ratio of RP to SP completed surveys was a little more than two to one. The 2013 commercial LDV survey resulted in over 2000 completed stated preferences survey, and a lower RP/SP ratio. The 2013 CVS included a web-only survey mode for the first time.

The 2015-2017 vehicle survey will build upon the previous surveys to update consumer preferences. Additionally, it will augment surveys to add targeted samples of the current plug-in electric vehicle (PEV) owners to learn about both their preferences and their vehicle use and charging behavior.

GOALS AND OBJECTIVES

The goals of this Agreement are to design and conduct both revealed preference (RP) and stated preference (SP) surveys for the household/residential light duty vehicle (LDV) sector and the commercial LDV sector and to update the residential and commercial LDV demand forecasting models. These updated models will be used in generating a LDV fuel demand forecast for the *2017 Integrated Energy Policy Report (IEPR)*.

The survey of California LDV consumers must be a fair representation of the California household population and businesses. The estimated light duty models for these sectors are brought together in a software system titled DynaSim that simulates transportation energy demand in California. The LDV models are designed around levels of vehicle ownership; three categories of vehicle holdings for households and three categories of fleet size for businesses. The survey must represent California households and California businesses in each of these categories.

ADMINISTRATIVE TASKS

TASK 1: CONTRACT MANAGEMENT

The goal of this task is to clarify administrative elements of the agreement. The contractor shall manage a team capable and qualified to complete the tasks identified in the scope of work.

TASK 1.1 - KICKOFF MEETING

The goal of this task is to establish the lines of communication between the administrative and technical project teams of the contractor and the Energy Commission.

The Contractor shall:

- Attend a kick-off meeting with the Energy Commission Agreement Manager (CAM), Contracts Officer, the Accounting Office, and others as determined by the CAM. The Contractor shall include their Project Manager, Contract Administrator, and Accounting Officer, and others as agreed upon with the CAM. The meeting will be held in Sacramento, CA and the CAM will designate the specific location, or via Webex and teleconference. Both the administrative and technical aspects of this contract will be discussed in the meeting.

TASK 1.2 - INVOICES

The goal of this task is to clarify the invoice approval process.

The Contractor shall:

Prepare an invoice for all reimbursable expenses incurred performing work under this contract in compliance with the Terms and Conditions of the contract. These invoices must be accompanied with monthly progress reports for approval by the CAM. Official invoices must be submitted to the Energy Commission's Accounting Office.

Deliverables:

- Invoices

TASK 1.3 - INCENTIVE PAYMENTS

The goal of this task is to pay monetary incentives to survey participants at each of the three phases of the 2015-2017 CVS: pre-survey focus group sessions, pre-test, and the main survey.

The Contractor shall:

- Design and distribute monetary incentives at different stages of the survey, as described in Tasks 5 and 6.
- Maintain a log of monetary incentive payments to include survey participant ID number, incentive(s) payment amount, and the date(s) the payment was issued. Funding for incentives is included in the associated deliverable payment. For example, Task 5 deliverable payments should include all focus group incentive payments.

Deliverables:

- Incentive payment logs

TASK 1.4 - SUBCONTRACTORS

In the event Subcontractors are part of the Contractor's proposal, the Contractor shall:

- Manage and coordinate subcontractor activities. The Energy Commission will assign all work to the Contractor. The Contractor is responsible for the quality of all subcontractor work. If the Contractor decides to add new subcontractors, they shall 1) comply with the terms and conditions of the contract, and 2) notify the CAM who will follow the Energy Commission's process for adding or replacing subcontractors.

Deliverables:

- Agreement between prime and subcontractor

TASK 1.5 - MONTHLY PROGRESS REPORTS

The goal of this task is to periodically verify that satisfactory and continued progress is made towards achieving the objectives of the project.

The Contractor shall:

- Prepare monthly progress reports to summarize all contract activities conducted by the Contractor for the reporting period, including an assessment of the ability to complete the contract within the current budget and any anticipated cost overruns.
- Each progress report is due to the CAM within 15 calendar days after the end of the reporting period.

Deliverables:

- Monthly Progress Reports

TASK 1.6 - FINAL REPORT AND MEETING

The goal of this task is to prepare a comprehensive Final Report and meet to discuss the Final Report.

TASK 1.6.1- Final Report Outline

The Contractor shall:

- Prepare a draft outline of the Final Report.
- Submit an electronic draft outline of the Final Report to the CAM for review and approval. The CAM will provide written comments to the Contractor on the draft outline.
- Prepare and submit a final outline to the CAM once agreement has been reached on the draft. The CAM shall provide written approval of the final outline.

Deliverables:

- Draft Outline of the Final Report
- Final Outline of the Final Report

TASK 1.6.2 - Final Report

The goal of this task is to discuss closeout of this Agreement and review the project.

The Final Report shall be a summary of all previous reports plus the Contractor's assessment of actions and methods to improve future CVS's. The Contractor shall meet with the Energy Commission to discuss the draft Final Report prior to finalizing the Final Report. The meeting can be held via conference call, online, or in person. The CAM will review and approve the Final Report. The meeting and Final Report must be completed on or before the termination date of the contract.

The Final Report formatting requirements include illustrations and graphics to be sized to print on 8 ½" by 11" paper and readable if printed in black and white. The Contractor's Reports shall be prepared consistent with the Energy Commission Document Production protocols for Consultant Reports located at:

http://www.energy.ca.gov/contracts/consultant_reports/index.html.

The Final Report shall be a public document. If the Contractor has obtained confidential status from the Energy Commission and will be preparing a confidential version of the Final Report as well, the Contractor shall perform the following subtasks for both the public and confidential versions of the Final Report.

The Contractor shall:

- Prepare the draft Final Report for this contract.
- Submit an electronic draft Final Report to the CAM for review and comment.
- Schedule a meeting with the CAM approximately 15 calendar days after submitting the draft Final Report to the CAM. The purpose of the meeting is to discuss the draft Final Report. The CAM will provide written comments to the Contractor after the meeting has occurred.
- Prepare and submit a Final Report that addresses all of the CAM's comments on the draft Final Report. Any problematic recommended changes should be discussed with the CAM. Once final editing is completed, the CAM shall provide written approval to the Contractor.
- Submit one print ready copy, one electronic copy, and one bound copy of the Final Report with the final invoice.

Deliverables:

- Draft Final Report
- Final Report

Task 1.6.3 - Final Meeting

The goal of this task is to discuss closeout of this Agreement and review the project.

The Contractor shall:

- Meet with Energy Commission staff prior to the term end date of this Agreement. The meeting will be held via Web-Ex or teleconference. This meeting will be attended by the Contractor Project Manager and the CAM. The CAM will determine any additional appropriate meeting participants. The administrative and technical aspects of Agreement closeout will be discussed at the meeting.
- Present findings, conclusions, and recommended next steps (if any) for the Agreement, based on the information included in the Final Report.
- Prepare a written document of meeting agreements and unresolved activities.
- Prepare a schedule for completing the closeout activities for this Agreement, based on determinations made within the meeting.

Deliverables:

- Written documentation of meeting agreements
- Schedule for completing closeout activities

TASK 1.7- CONFIDENTIALITY AGREEMENTS

Note that the Energy Commission shall have the sole authority to release survey material, survey results, videotapes, and other materials produced from this survey to outside parties.

The Contractor and subcontractors shall:

- Enter into, a confidentiality agreement with the Department of Motor Vehicles (DMV) if using the DMV data, and a non-disclosure agreement with the Energy Commission. The CAM will provide these agreements at the kick off meeting.

Deliverables:

- Signed confidentiality agreement with DMV, if using DMV data
- Signed non-disclosure agreement with the Energy Commission

TECHNICAL TASKS

TASK 2: WORK PLAN

The goal of this task is to create a clear description of the work to be performed under each task and the associated methods. The Contractor shall finalize a project Work Plan based on the comments on the draft Work Plan submitted in the proposal. This Work Plan will describe the scope of the work and the methodologies to be used for completing the surveys and estimating the equations.

The Contractor shall:

- Meet with the CAM, and others invited by the CAM, to discuss finalizing the work plan. This strategy meeting to discuss the Work Plan shall take place within ten (10) business days after the Kick-Off Meeting. This strategy meeting will be held either at the Energy Commission or over the internet.
- Finalize a project Work Plan in consultation with the CAM. The Work Plan shall contain a thorough discussion of the work to be performed. It will document the Energy Commission's and the Contractor's expectations for each task, and serve as a reference throughout the course of the project. The Work Plan shall address:
 - Sampling frame for both household and commercial markets;
 - Sampling design for both household and commercial markets;
 - Survey sample stratification;
 - The 5 regions used for the 2013 survey (see Attachment A) will be increased to 6 regions, splitting the "Rest of the State" into two, to add a specific region representing the central valley;
 - Approach to survey design;
 - Approach to incentive design in order to maximize response rate and minimize non-response bias;
 - Approach to conducting focus groups;
 - Discussion of non-response bias, as well as other bias risks associated with survey and sample design, and approaches to dealing with them;
 - Approach to representation of Spanish language Californians;
 - Approach to oversampling of PEV owners;

- Approach to increasing the accuracy of self-reported vehicle miles traveled (VMT), in the RP survey, and its fuel type dimensions (distribution between electric and gasoline miles, for instance);
 - Survey modes and tools (mail-in, web, smart phone apps, etc.);
 - Scope of survey instruments, including consumer knowledge and awareness of alternative fuel vehicle technologies and fuels;
 - Approach to representing cell-phone only households;
 - Approach to focus group sessions;
 - ;
 - Approach to pre-test survey and sample;
 - Respondent recruitment procedures;
 - Data collection protocols;
 - Quality control procedures;
 - Logistics of survey execution;
 - Cleansing and coding of collected survey data;
 - Database and software format of delivered survey data;
 - Methods for estimating and validating the vehicle utility models;
 - Statistical software to be used in model estimation;
 - Project schedule, detailing the tasks and their associated dates and costs.
- Update the Work Plan as necessary throughout the Agreement, in consultation with the CAM.

Deliverables:

- Draft Work Plan
- Final Work Plan

TASK 3: SURVEY REVIEW, WEBSITE, AND DATABASE DESIGN DEVELOPMENT

The goal of this task is (A) to identify all the data items for inclusion in the 2015-2017 CVS, after careful review of data items in both the 2009 and 2013 CVS commercial and household vehicle surveys, (B) to develop recommendations for 2015-2017 survey, and (C) to develop both website and database management plans.

The 2015-2017 CVS involves both revealed and stated preferences surveys for both the household and the commercial LDV sectors.

TASK 3.1 - HOUSEHOLD SURVEY

The goals of this task are to review the 2009 and 2013 CVS household vehicle revealed and stated preferences surveys and related documents to formulate recommendations to update, and improve upon them, for the 2015-2017 CVS household vehicle survey.

The 2009 and 2013 CVS household vehicle surveys will be the foundation for the 2015-2017 CVS household vehicle survey in this contract. All prior household vehicle surveys at the Energy Commission integrate the revealed preferences survey with the stated preferences survey. The 2013 household vehicle survey was integrated with Caltrans travel survey for revealed preferences, but this is not possible for the 2015-2017 survey.

The Contractor shall:

- Review and compare survey methodology, sampling design, data items, and survey instruments of the 2009 and 2013 CVS RP vehicle survey.
- Formulate recommendations to the CAM on the following:
 - The best method to update the 2009/2013 CVS household RP vehicle survey and survey instrument design
- Review and compare methods and instruments of the choice questions in the stated preferences survey to test the value of 10-15 vehicle attributes to respondents.
- Formulate recommendations to the CAM on the following:
 - The specific vehicle attributes for inclusion in the SP survey instrument for the 2015-2017 CVS; and
 - The best method to update the 2009/2013 CVS SP vehicle survey and survey instrument design.

Deliverables

- Household RP survey review and recommendations,
- SP survey reviews and recommendations.

TASK 3.2 - COMMERCIAL FLEET SURVEY

The goal of this task is to review the 2013 CVS commercial fleet survey technical reports with respect to survey design and methodologies and the survey instrument to formulate recommendations for updating the 2013 CVS commercial vehicle survey design. The 2015-2017 CVS commercial fleet survey will be composed of two surveys: a recruitment survey of revealed preferences and a stated preferences survey.

Data specific to the commercial vehicle survey includes general economic information such as location, type, size of business and its fleet size and composition.

The Contractor shall:

- Review the 2013 CVS commercial fleet survey technical reports.
- Formulate recommendations to the CAM on:
 - The specific vehicle attributes for inclusion in the stated preferences survey instrument; and
 - The best method to update the 2013 commercial vehicle survey and survey instrument designs.

Deliverables

- Commercial vehicle RP survey review and recommendations.

TASK 3.3 – COMMON DATA CATEGORIES The goal of this task is to further clarify data categories that apply to both commercial and household vehicle stated preferences surveys. Contractor shall identify data categories that these vehicle surveys have in common including, but not limited to:

- Current vehicle ownership by number, vehicle and fuel types, and vintage of vehicles (year of purchase, price paid, and financing method; lease, loan, cash);
- Vehicle transaction behavior (acquisition, transfer of ownership, and vehicle retirement);
- Annual vehicle miles traveled (VMT) per vehicle;

- Vehicle attributes used in the stated preferences survey including, but not limited to, vehicle price, miles per gallon, maintenance cost, repair cost, depreciation, range acceleration;
- Response to, and interest in, purchasing new vehicle technologies such as, but not limited to hybrid vehicles, plug in hybrid vehicles (PHEV), battery electric vehicles (BEV), hydrogen fuel cell vehicles(FCV), flex fuel (FFV), dual fuel vehicles, compressed natural gas vehicles (CVG), autonomous vehicles, and others; response to, and interest in, using alternative fuels such as, but not limited to E-85, electricity, natural gas, diesel, and hydrogen;
- Vehicle refueling options and attributes, including but not limited to location (home/work based vs station), time/distance to fueling station, charging vs battery switching, fuel cost and carbon intensity;
- Choice response to hypothetical vehicle refueling options and attributes;
- Response to, and interest in, vehicle and vehicle use pricing options such as announced regularly scheduled and one time fuel tax increase, per gallon and/or per mile fee/tax for VMT, vehicle purchase incentives, and “Feebates”. A “Feebate” refers to a program where buyers of new cars that are more efficient than average receive a rebate based proportionately on vehicle fuel efficiency or carbon emissions and pay a fee if they purchase vehicles that are less efficient than average; and
- Choice response to hypothetical vehicles with varying attributes such as, fuel type, range, fuel economy, fuel cost, purchase price, refueling options and availability, and refueling time and others.

Deliverables:

- List of common data categories.

TASK 3.4 - SURVEY WEBSITE

The goal of this task is to create a website for the 2015-2017 CVS respondents who choose to complete the survey online. The final website design shall require approval by the CAM before its use in the 2015-2017 CVS and must be accessible to the CAM for the duration of the contract.

The Contractor shall:

- Develop a description of the website for CAM approval. The description shall include:
 - The website’s appearance;
 - How the respondents will log into the website;
 - How the respondents will complete the survey;
 - Whether or not both revealed and stated preferences will be completed in one website visit;
 - Whether or not click patterns will be monitored in pretest and/or main survey, and how it will be used;
 - How the data will be stored; and
 - How the website will be secure and remain confidential
- Develop a mock-up of the website for CAM approval. The mock-up shall be a sketch of how each screen will look for the respondents.
- Provide the URL and screenshots of the website.
- Create and maintain a secure and confidential website for all surveys, in both English and Spanish, to allow respondents to complete the surveys via the Internet.

Deliverables:

- Description of survey website
- Mock-up of survey website
- URL and screenshots of the survey website

TASK 3.5 - SURVEY DATABASE DEVELOPMENT

The goal of this task is to create a development plan for a database to populate and store survey responses. For all surveys, respondents shall be offered the choice of completing the survey by mail or via the Contractor's website. If necessary, the Contractor shall contact the survey respondent(s) by telephone, after completion of the survey, to obtain additional information or to modify and correct the collected data. The Contractor will be responsible for entering the responses from all survey modes (mail, phone, and online), into the database.

The Contractor shall:

- Prepare a database development plan for storing 2015-2017 CVS data.
- Create and maintain a database that stores all responses from the respondents.
- Populate and/or update the database on a weekly basis with survey responses from all survey modes, and monitor segment representation

Deliverables:

- Database development plan

TASK 3.6 - TASK 3 REPORT

The goal of this task is to prepare a Task 3 Report on the activities of task 3.

The Contractor shall Prepare a draft Task 3 Report for CAM review. The Task 3 Report shall include the following content:

- Household RP survey review and Recommendations,
- Commercial RP survey review and recommendations.
- SP survey reviews and recommendations.
- List of common data categories.
- Database development plan
- Description of survey website
- Mock-up of survey website
- URL and screenshots of the survey website
- Prepare a final Task 3 Report, based on comments from the CAM.

Deliverables:

- Draft Task 3 Report
- Final Task 3 Report

TASK 4: SURVEY AND SAMPLE DESIGN

The goal of this task is to complete the survey and sampling designs and survey instruments for the 2015-2017 CVS. Under this task, the Contractor shall develop the 2015-2017 CVS based on acceptable standards in the field, for this type of survey and model.

TASK 4.1 - HOUSEHOLD SURVEY

The goal of this task is to develop survey and sampling designs and survey instruments for the 2015-2017 CVS household vehicle survey.

The Contractor shall:

- Determine the sampling frame
- Design the household vehicle survey sample to ensure that:
 - The sample is a reliable representation of the state, incorporating key demographic variables of interest (e.g., location, household income, household size, number of workers in household, vehicle ownership, transit ridership per capita, and annual VMT).
 - Distribution of respondents recruited for the 2015-2017 CVS household vehicle survey shall be based on the population distribution by California counties. Sample distribution of household participants should be close to the regional distribution of households in California. The California Department of Finance's most current population estimates should be used for this survey.
 - Household survey results in 3500 completed SP surveys.
- Design the household survey:
 - To use multiple modes for conducting the survey, including phone (landline and/or cell), mail, smart phone apps and web-based surveys, and may use different modes in different stages of the survey.
 - Suggest cost effective methods to complete the survey while maintaining the designated quality and quantity of survey data.
- Develop quality control procedures for key variables that will be used to develop nested multinomial logistic utility equations. Quality includes, but is not limited to, corrections for misinformation from survey respondents, outlying data, and any other data collection and data entry errors. Compose communications to inform all survey respondents that the survey information they provide will be held confidential pursuant to the California Information Practices Act and the signed non-disclosure agreement with the Energy Commission.
- Prepare draft survey instrument and survey material in both English and Spanish.
- Maintain each respondent's telephone number, address, and e-mail in the event that further clarifications are needed from the respondents or survey responses appear to be internally inconsistent and/or unlikely to be correct.
- Include the sampling and survey designs, and survey instrument(s) for the 2015-2017 CVS household vehicle survey.

Deliverables

- Survey and sampling designs and survey instruments for the 2015 CVS household vehicle survey;
- Communications prepared for the household survey participant recruitment and retrieval of surveys.

TASK 4.2 – COMMERCIAL VEHICLE SURVEY

The goal of this task is to complete survey and sampling designs and survey instruments for the 2015-2017 CVS commercial vehicle survey.

The Contractor shall:

- Determine the sampling frame
- Design the commercial fleet owner sample to ensure that:

- The commercial fleet owner sample is representative of the fleet owner population by fleet size, region and industry distribution in California.
- Commercial vehicle survey results in 2000 completed SP surveys.
- Design the commercial vehicle survey:
 - To use multiple modes for conducting the survey, including phone (landline and/or cell), mail, smart phone apps and web-based surveys. Different modes may be used in different stages of the survey.
 - Suggest cost effective methods to complete the survey while maintaining the designated quality and quantity of survey data.
 - To ensure survey completion by fleet manager or his/her designated staff.
- Develop quality control procedures for key variables that have been used to develop nested multinomial logistic utility equations. Quality includes, but is not limited to, corrections for misinformation from survey respondents, outlying data, and any other data collection and data entry errors. The commercial fleet data listed in Task 3, required for estimation of the commercial vehicle models, will be collected or generated by the Contractor, who must ensure their accuracy.
- Design the survey. The survey may use multiple survey modes, including phone (landline and/or cell), mail, smart phone apps, and web-based surveys, and may use different modes in different stages of the survey. The Contractor shall suggest cost effective methods to complete the survey while maintaining the designated quality and quantity of survey data.
- Compose communications to inform all survey respondents that the survey information they provide will be held confidential pursuant to the California Information Practices Act and the signed non-disclosure agreement with the Energy Commission.
- Prepare survey material and instruments in both English and Spanish.
- Maintain each respondent's telephone number, address, and e-mail in the event that further clarifications are needed from the respondents or survey responses appear to be internally inconsistent and/or unlikely to be correct.
- Include the sampling and survey designs, and survey instrument(s) for the 2015-2017 CVS commercial vehicle survey in the Task 4 Report (See Task 4.3).

Deliverables

- Survey and sampling designs and survey instruments for the 2015-2017 CVS commercial fleet survey;
- Communications prepared for the commercial survey participant recruitment and retrieval of surveys.

TASK 4.3 – TASK 4 REPORT

The goal of this task is to prepare a Task 4 Report.

The Contractor shall:

- Prepare a draft Task 4 Report for the CAM for review. The Task 4 Report shall include the deliverables listed under task 4.1 and 4.2. Prepare a final task 4 report that incorporates all changes and comments recommended by the CAM.

Deliverables:

- Draft Task 4 Report
- Final Task 4 Report

TASK 5: PLUG-IN-ELECTRIC VEHICLE (PEV) OWNER SURVEY AND SAMPLE DESIGN

The goal of this task is to design the sample and the add-on survey instruments, targeting California PEV owners to survey their vehicle utilization and charging behavior. The Contractor shall complete PEV owner surveys and distribute the sample across both commercial and residential sectors. These survey participants will complete the add-on RP and SP surveys, in addition to the main RP and SP survey instruments.

The contractor shall:

- Draw the sample from current PEV owners in California's residential and commercial markets;
- Conduct one focus group sessions for PEV owners;
- Design add-on revealed preferences survey instrument containing additional vehicle use questions;
- Design add-on stated preferences survey instrument;
- Conduct one survey pretest for PEV owners;
- Develop Incentive plan to assure completion of the 500 add-on surveys;
- Finalize the PEV owner survey design based on the pretest survey results;
- Prepare a draft Task 5 report on the PEV owner sample and survey design;
- Prepare a final Task 5 report incorporating CAM feedback.

Task 5 Deliverables

- Draft PEV owner sample and survey design
- Final PEV owner sample and survey design

TASK 6: FOCUS GROUP AND SURVEY PRETESTS

The goal of this task is to finalize the survey design and survey instruments. The Contractor shall conduct focus group meetings and pretests to finalize the survey instrument.

TASK 6.1 - FOCUS GROUPS

The goal of this task is to design and execute focus group sessions to inform survey design and/ survey instrument and material for pretest.

The Contractor shall:

- Design focus group sessions to achieve the following purposes:
 - Compile information to inform the pretest and assist with the design of the final survey (for example, ascertain consumers' knowledge/perception/awareness/assessment of different vehicle technologies, alternative fuels, and fuel infrastructure).
 - Gather data to assess household and commercial fleet managers' responses to policy measures designed to reduce growth in petroleum dependence.
 - Identify factors that influence consumer behavior in purchasing energy efficient vehicles or vehicles that do not operate on petroleum-based fuels.
 - Identify factors that influence responses to public policy initiatives that reduce the demand for petroleum-based fuels.

- Gather data to assess household and commercial fleet managers' reactions to the general appearance of the choice experiments and the vehicle attributes.
- Prepare and submit draft updated focus group material and develop questionnaires for the focus group sessions to the CAM.
- Based on comments from the CAM, prepare final material and questionnaires for the focus group sessions.
- Recruit respondents for focus group sessions, consistent with the Work Plan (Task 2):
 - Ensure that the focus group respondents are owners of a variety of light-duty vehicle technology and fuel types and are in a variety of income categories and education levels;
 - Each focus group session shall consist of 8-10 respondents.
 - Each focus group shall include at least one alternative fuel vehicle (EV/PHEV/CNG/Hydrogen FCV) owner.
- Conduct focus group sessions:
 - Conduct 9 focus groups, with a minimum of 2 per region, with up to 4 residential and up to 4 commercial.
 - Of the 9 focus group sessions, one is in Spanish and one for PEV owners.
 - The Spanish and the PEV owner focus groups can be composed of both residential and commercial fleet owners.
 - .
 - Focus group sessions should last approximately two hours.
 - Provide the facility for holding the focus group meeting(s);
 - Provide a facilitator for each focus group session who will:
 - Submit the survey to the respondents;
 - Answer respondent questions;
 - Videotape the sessions;
 - Perform other necessary tasks to complete the focus group, and
 - Sign a nondisclosure agreement with the Contractor.
 - Distribute materials to the survey respondents;
 - Attend the focus group session;
 - Notify the respondents of the time commitment and that the individual information they provide during the focus group session shall be held confidential by the Contractor and the Energy Commission pursuant to the California Information Practices Act and the non-disclosure agreement between the Contractor and the Energy Commission;
 - Provide the household and commercial respondents with an incentive payment to participate in the focus group sessions;
- Log incentive payments and submit incentive logs as described in Task 1.3;
- Log responses of the focus group participants in the database;
- Submit DVDs of all focus group sessions;
- Submit notes and transcripts of each session;.
- Prepare a draft Task 6.1 Report for the CAM after conducting the focus group sessions. The Task 6.1 Report shall include:
 - Summary of all pre-survey focus group activities; and
 - Focus group session results, justifications, and recommendations for survey design and /or revision of the survey instrument and material for pretest.
- Prepare a final Task 6.1 Report incorporating comments from CAM.

Deliverables:

- Draft focus group materials and questionnaires
- Final focus group materials and questionnaires
- Complete and accurate log of incentive payments
- DVDs of the videotaped focus group sessions
- Draft Task 6.1 Report
- Final Task 6.1 Report

TASK 6.2 - SURVEY PRETESTS, INTERVIEWER TRAINING, AND DESIGN OF FINAL SURVEY INSTRUMENTS

The goals of this task are to design and execute the survey pre-test, to train interviewers, and to finalize survey instruments and survey procedures for the main survey and the PEV owner add-on survey.

The Contractor shall:

- Design survey pre-test to evaluate the draft survey instruments with regard to:
 - Clarity and effectiveness of the instructional cover message;
 - Time required by respondents to complete the questionnaire;
 - Respondent's reactions to the general appearance of the questionnaire (such as page layout, print size, etc.);
 - Ability of respondents to understand questions;
 - Reliability of each question to measure what is intended;
 - Identify issues regarding placement and wording of sensitive questions;
 - Respondent's reactions to the general appearance of the choice experiments and vehicle attributes.
- Develop stated preference or choice questions to test the value of 10-15 vehicle attributes to respondents.
- Design add-on PEV owner survey instruments, based on other California PEV surveys and the PEV owner focus group session results/findings;
- Provide a written description of the survey pre-tests to the CAM;
- Provide a final description of recommended pre-tests, based on comments from the CAM;
- Design and provide a concise written description of interviewer training procedures and material;
- Train interviewers to conduct the survey;
- Propose sample size for both commercial and household pretest surveys, as well as the regional distribution;
- Conduct the survey pre-tests;
- Distribute incentive payment for participating in the survey pre-test;
- Log incentive payments and submit incentive logs as described in Task 1.3.
- Use the results of the pre-tests to design the final survey instruments, material, and procedures;
- After conducting the pre-tests, prepare a draft Task 6.2 Report for the CAM.

The Task 6.2 report shall include:

- Written description of the survey pre-tests; and
- Results of the survey pre-tests.
- Prepare a final Task 6.2 Report incorporating comments from the CAM.

- Submit the final RP and SP survey instruments and other materials, for both the main survey and the PEV owner add-on surveys, as requested by the CAM. The survey instrument and material must be written at the sixth grade comprehension level.

Deliverables:

- Draft description of the survey pre-tests
- Final description of the survey pre-tests
- Description of interviewer training procedures and materials
- Complete and accurate log of incentive payments
- Draft Task 6.2 Report
- Final Task 6.2 Report
- Final survey material and instruments for both the main survey and the PEV owner add-on surveys.

TASK 7: SURVEY RECRUITMENT, IMPLEMENTATION, RESPONSE CATEGORIES, AND DATA CORRECTION

The goal of this task is to execute the main survey, as well as the PEV owner add-on surveys, compile and document the survey data, and analyze survey data quality during data collection. The Contractor shall update the draft recruitment letter from the 2013 CVS, recruit respondents, conduct the surveys, and categorize survey responses, including those responses that do not fit within predefined categories. The contractor shall conduct enough revealed preferences surveys to result in 3500 completed household SP surveys, 2000 completed commercial SP surveys, and 500 PEV owner add-on surveys.

The survey data are critical to the Energy Commission’s modeling and analysis activities. A high standard of data collection and survey response classification is expected from the Contractor.

The Contractor shall:

- Prepare and submit a draft recruitment letter. The recruitment letter shall notify respondents that the individual information they provide while taking part in the survey shall be held confidential by the Energy Commission and the Contractor pursuant to the California Information Practices Act and the non-disclosure agreement between the Contractor and the Energy Commission.
- Prepare and submit final respondent recruitment letters/communications for each survey, based on comments from the CAM.
- Conduct the 2015-2017 CVS. During the survey execution, Contractor will:
 - Compile respondent responses.
 - Categorize the response data. The survey data shall include each respondent’s residence telephone number(s) and, when possible, workplace telephone number(s).
 - Document and distribute all incentive payments to all survey participants.
 - Log incentive payments and submit a log of all incentive payments, as described in Task 1.3.
 - Describe the recommended validation methodology for both vehicle and VMT models and work with the CAM to finalize the validation process.

- Monitor survey representation of the targeted segments of California population on a weekly basis and take appropriate actions to ensure representativeness of the survey.
- Prepare brief weekly survey implementation progress reports on recruitment and initial survey validity as the survey is in progress. These progress reports can be communicated via e-mail or posted on the Contractor's project management portal.
- The weekly survey implementation progress reports should:
 - Discuss the current sample, describe the distribution of the parameters; where shortfalls exist (for example, not enough people sampled in a certain age range); and how to fix this shortfall, if necessary; and
 - Discuss how any shortfall affects the survey results.
- Collect a sufficient number of sample data to ensure that valid income responses are present for at least 80 percent of the households, preferably many more;
- Verify the survey data to ensure that information regarding vehicle ownership, transactions, and usage are accurate and complete;
- Provide Zip code plus 4 for each survey respondent;
- Create and submit draft commercial fleet survey data files in electronic format, using Excel or a comma-delimited text file, or as otherwise agreed upon between the Contractor and the CAM.
- Incorporate any revisions to the draft survey data files, as indicated by the CAM, deliver final survey data files in electronic format;
- Correct data entry or survey data errors in the resulting data files, as necessary
- Prepare a draft Task 7 Report for the CAM. The Task 7 Report shall include:
 - Respondent recruitment letters for the 2015-2017 CVS for both the household and the commercial surveys;
 - Limitations of survey and survey data; and
 - Documentation of data coding procedures used to categorize survey responses.
- Prepare a final Task 7 Report, incorporating any revisions to the draft Task 7 Report as indicated by the CAM.

Deliverables:

- Draft Recruitment Letters for both main surveys and the PEV owner survey
- Final Recruitment Letters for both main surveys and the PEV owner survey
- Survey participation incentive payment log
- Weekly survey implementation progress reports
- Survey data files, including data dictionaries
- Draft Task 7 Report
- Final Task 7 Report

TASK 8: ANALYSIS OF DATA QUALITY AND SURVEY RESULTS

The goal of this task is to analyze and assure the quality of the survey data and to complete a descriptive analysis of survey results. Under this task, the Contractor shall analyze and document the quality and content of the main survey data, as well as the PEV owner add-on survey, both during and after the data collection tasks. The reporting of response or completion rates shall conform to the standards established by the Council of American Survey Research Organizations.

The Contractor shall:

- During data collection, prepare detailed statistical summaries of participation rates and similar indicators of quality and consistency, including:
 - Misreading of the questions to the survey respondents;
 - Misinterpretation of collected data;
 - Other errors in transporting the data into the electronic format; and
 - Any inconsistencies in how the survey questions were asked.
- After the data collection is complete, prepare summary statistics for each sample, including:
 - Number of contacts, participation rates, respondents who did not answer all questions fully, number of outliers (if any), size of individual outliers (if any), and any biased survey respondents or surveyors;
 - Any abnormal variances in the data and any noticeable patterns that suggest the possibility of erroneous data that would need to be investigated further;
 - Completed responses in each cell of the sampling stratification and completed response rates by question, cross-tabulated; and
 - Any other descriptors or question responses that deviates more than a reasonable rate from what would be expected.
- Prepare a draft Task 8 Report. The Task 8 Report shall include the following content:
 - Documentation of the statistical analyses performed and a detailed summary of the results from these analyses; and
 - Methods used to check accuracy and make corrections to VMT estimates, by fuel type.
 - Descriptive analysis of the data with cross tabulations of different data items, for household, commercial and PEV owners, by key variables and as requested by the CAM.
- Prepare a final Task 8 Report incorporating any revisions to the draft Task 8 Report indicated by the CAM.

Deliverables:

- Draft Task 8 Report
- Final Task 8 Report

TASK 9: LOGISTIC REGRESSION ANALYSIS

The goal of this task is to use the survey data and econometric methods to estimate the utility functions that are integrated to create the personal and commercial vehicle ownership, transaction, and choice models.

The Contractor shall:

- Use the 2015-2017 CVS data from the previous tasks to develop nested multinomial logit choice models for the household and commercial LDV sectors. The nested multinomial logit models will be used to develop forecasts of vehicle stock, and fleet characteristics, and of annual VMT for household and commercial fleet vehicles, and fuel consumption.

- Estimate nested multinomial logit equations for vehicle ownership, transaction and choice utility functions based on the vehicle survey data for the households by ownership categories (1 vehicle, 2 vehicles, and 3+ vehicles) as well as vehicle choice, fleet size, and VMT models for the commercial sector by industry grouping. Utility functions estimating preferences for a specific class of vehicles will use stated preferences survey data; other equations will use revealed preferences survey data or a combination of stated and revealed preferences survey data. These equations must include:
 - Utility functions for the number of vehicles per household;
 - Household utility function for new and used vehicles;
 - Utility functions to reflect preferences for a specific class of vehicles and type of fuel, for one, two and 3+ vehicle households;
 - Utility functions to reflect preferences for a specific class of vehicles and fuel type, for commercial fleet owners, in different industry groups;
 - Utility functions for the number of vehicles per commercial fleet;
 - VMT equations for different household groups; and
 - VMT equation for commercial fleet vehicles.

The explanatory variables of these equations include, but are not limited to:

- Household income;
 - Household size;
 - Gender and age of the decision maker;
 - Business characteristics for commercial fleets;
 - Number of workers in household ;
 - Transit ridership per household member;
 - Fuel type and fuel cost;
 - Fuel availability and refueling time;
 - Vehicle maintenance cost and depreciation;
 - Vehicle type and vehicle price;
 - Annual VMT estimates for both households and commercial fleet vehicles;
 - Monetary and non-monetary vehicle purchase incentives;
 - Fuel efficiency, in miles per gallon; and
 - Range and Acceleration (time for vehicle to accelerate from 0 to 60 miles per hour).
- Provide the latest census counts from the United States Census Bureau of household size, income, and number of workers for each region in the state. United States Census Bureau statistics are required to develop appropriate weighting terms for household characteristics.
 - Include as-needed additional census data that may be shown to be statistically significant during the development of the utility functions.
 - Submit the data sets used in estimating the logistic equations.
 - Prepare a draft Task 9 Report for review and approval by the CAM. The Task 9 Report shall include:
 - Estimation methods, statistical properties, and validity of the coefficients;
 - Vehicle transaction and choice utility functions, and their nesting structure, explicit or implied income, and fuel price elasticity's;
 - Detailed error analysis and verification of independent and identically distributed error results;
 - Discussion of model validation;
 Presentation and comparison of the estimates derived from the utility equations with the most recent Bureau of Transportation Statistics, California

Transportation

Profile http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/state_transportation_statistics/state_transportation_statistics_2014/index.html and the relevant census data, including, but not limited to, household size, fuel cost, business type, business size, depreciation, income, and number of workers per household and commercial fleet for each region.

- Prepare a final Task 9 Report responding to CAM comments and suggestions.
- Submit a computer output for the equations from the Task 9 Report.

Deliverables:

- Draft Task 9 Report
- Data files used in estimating the equations Draft Task 9 Report
- Final Task 9 Report
- Computer output for the equations specified in Task 9 Report

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: RESOURCE SYSTEMS GROUP

RESOLVED, that the State Energy Resources Conservation and Development Commission (Energy Commission) adopts the staff CEQA findings contained in the Agreement Request Form; and

RESOLVED, that the Energy Commission approves Agreement 800-14-005 with **Resource Systems Group, Inc.** for a **\$995,525** contract to design and conduct surveys of California commercial and residential vehicle owners, as well as plug-in electric vehicle owners to assess consumer behavior and preferences for different conventional and alternative fuel vehicle technologies. The survey data will be used to build vehicle demand and utilization models for use in forecasting light duty vehicle demand and fuel use; and

FURTHER BE IT RESOLVED, that the Executive Director or his/her designee shall execute the same on behalf of the Energy Commission.

CERTIFICATION

The undersigned Secretariat to the Commission does hereby certify that the foregoing is a full, true, and correct copy of a Resolution duly and regularly adopted at a meeting of the California Energy Commission held on June 10, 2015.

AYE: [List of Commissioners]

NAY: [List of Commissioners]

ABSENT: [List of Commissioners]

ABSTAIN: [List of Commissioners]

Harriet Kallemeyn,
Secretariat