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In the matter of:

2018-2019 Investment Plan Update

Docket No. 17-ALT-01

Meeting and Public Workshop  
RE: Alternative and Renewable Fuel  
and Vehicle Technology Program

**November 17, 2017**

California Energy Commission  
1516 Ninth Street  
Sacramento CA 95814

Dear Commissioner Scott and Staff,

The Center for Sustainable Energy® (CSE; [www.energycenter.org](http://www.energycenter.org)) is pleased to provide these comments to the California Energy Commission (Energy Commission) in response to the November 7, 2017 Meeting and Public Workshop discussing the 2018- 2019 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program Draft (18/19 ARFVTP Draft).

CSE has received ARFVTP funds for the Clean Vehicle Rebate Project (CVRP), zero-emission vehicle (ZEV) readiness planning and best practice implementation projects in the San Diego and San Joaquin Valley regions. Most recently, CSE was selected as administrator of the Energy Commission's Block Grant for Electric Vehicle Charger Incentive Projects. CSE provides the following recommendation based on its experiences supporting the achievement of the state's ZEV and ZEV infrastructure policies.

## ***Develop Innovative Accelerator Groups to Achieve California's Transportation Electrification Objectives***

CSE offers high praise of the 18/19 ARFVTP Draft,<sup>1</sup> which emboldens technological diversity while deploying a wide range of resources to pursue the state's alternative and renewable fuel policies. Given California's robust Transportation Electrification (TE) policy goals, the ARFVTP's focus on TE is appropriate. To strengthen alignment with the rapidly-growing and evolving TE sector, the Energy Commission should consider leveraging stakeholder-based accelerator groups. These accelerator groups will help align policy priorities with the diverse array of innovative approaches underway, which will ensure the maximum impact of ARFVTP spending on air quality benefits and the market acceleration of clean transportation technologies.

CSE recommends that the Energy Commission convene five strategic accelerator groups further discussed in these comments. These accelerator groups would facilitate innovative TE approaches through collaboration, research/information sharing, and working groups tailored to support TE acceleration in specific sectors. To finance accelerator group activities, CSE recommends the Energy Commission utilize the ARFVTP's more flexible 'emergent opportunities' funding source.<sup>2</sup>

CSE provides details to the purpose and function of each proposed accelerator group:

- **Transportation Electrification Ecosystem<sup>3</sup> Ombudsman.** CSE encourages the Energy Commission to establish this Ombudsman, which will perform a crucial organizational function for the TE ecosystem's elaborate (and expanding) stakeholder community. Per SB 350, the State's large investor-owned utilities (IOUs) have presented 21 programs before the California Public Utility Commission (CPUC), as well as 4 rate design

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<sup>1</sup> 2018-2019 Investment Plan Update for the Alternative and Renewable Fuel Vehicle Technology Program Draft; Website Access: [http://docketpublic.energy.ca.gov/PublicDocuments/17-ALT-01/TN221664\\_20171102T105305\\_20182019\\_Investment\\_Plan\\_Update\\_for\\_the\\_Alternative\\_and\\_Renewab.pdf](http://docketpublic.energy.ca.gov/PublicDocuments/17-ALT-01/TN221664_20171102T105305_20182019_Investment_Plan_Update_for_the_Alternative_and_Renewab.pdf) and Vehicle Technology Program - Draft Staff Report; Website Access:

[http://docketpublic.energy.ca.gov/PublicDocuments/17-ALT-01/TN221664\\_20171102T105305\\_20182019\\_Investment\\_Plan\\_Update\\_for\\_the\\_Alternative\\_and\\_Renewab.pdf](http://docketpublic.energy.ca.gov/PublicDocuments/17-ALT-01/TN221664_20171102T105305_20182019_Investment_Plan_Update_for_the_Alternative_and_Renewab.pdf)  
<sup>2</sup> The current 18/19 ARFVTP's Draft Staff Report proposes to allocate \$4.2 million to the emergent opportunity funding category.

<sup>3</sup> This "TE ecosystem" includes the 2013, 2015 (Draft), and 2016 ZEV Action Plans; SB 350 Transportation Electrification Policy per SB 350; California Sustainability Freight Action Plan; CARB's Advanced Clean Transit Rulemaking; and other key transportation policy frameworks which provide policy tools to accelerating ZEV adoption and transportation electrification across California.

proposals.<sup>4</sup> The smaller IOUs<sup>5</sup> filed their applications as well, which has enlarged the program application pool. Moreover, per Assembly Bill 1082<sup>6</sup> and 1083<sup>7</sup> the IOUs will file applications on the deployment of Electric Vehicle Supply Equipment (EVSE) at school facilities, educational institutions, and state parks. Moreover, the publicly-owned utilities have their own obligations under SB 350. On Volkswagen (VW) matters, CARB will monitor the deployment of a massive amount of EVSE infrastructure consistent with VW's Zero-Emission Investment Plan and the emergent Beneficiary Mitigation Plan. In addition, per SB 1, agencies are encouraged to use funding for charging or fueling opportunities for ZEVs, which will likely lead to even more EVSE deployment.<sup>8</sup> California's TE ecosystem is continuing to rapidly accelerate—and this will require expanded coordination.

To maximize the potential impact of these (and other) activities, a concerted and expanded effort to harmonize the learnings across the TE ecosystem is strongly recommended. Without this coordination, CSE is concerned that the lack of uniformity in data collection and information management may make program coordination, data sharing, and comparison activities challenging. This lack of uniformity may lead to siloed and disjointed program assessment approaches, which may ultimately lead to uncaptured data and result in the loss of a critical opportunity to maximize learning from this rich and unprecedented climate of pilots, programs, and initiatives.

As such, CSE encourages the Energy Commission to evaluate the use of a statewide Ombudsman to serve as an independent aggregator of program data, information, and lessons learned across this diverse array of activities. This Ombudsman would work with

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<sup>4</sup> CPUC Table summarizing utility proposal; Website Access:

[http://www.cpuc.ca.gov/uploadedFiles/CPUC\\_Public\\_Website/Content/Utilities\\_and\\_Industries/Energy/Energy\\_Programs/Infrastructure/RDD\\_and\\_Emerging\\_Programs/Alternative\\_Fuel\\_Vehicles/SB350Applications.pdf](http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy/Energy_Programs/Infrastructure/RDD_and_Emerging_Programs/Alternative_Fuel_Vehicles/SB350Applications.pdf)

<sup>5</sup> The "small IOUs" are Bear Valley Electric Service, Liberty Utilities (a.k.a. CalPeco for California Pacific Electric Co.), and PacifiCorp

<sup>6</sup> AB-1082 Transportation electrification: electric vehicle charging infrastructure: school facilities and other educational institutions; Website Access:

[https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201720180AB1082](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB1082)

<sup>7</sup> AB-1083 Transportation electrification: electric vehicle charging infrastructure: state parks and beaches. Website Access: [https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill\\_id=201720180AB1083](https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180AB1083)

<sup>8</sup> Senate Bill 1; SEC. 36. Chapter 2 (Section 2030), (2) (d) "To the extent possible and cost effective, and where feasible, the department and cities and counties receiving funds under the program shall use advanced technologies and communications systems in transportation infrastructure that recognize and accommodate advanced automotive technologies that may include, but are not necessarily limited to, charging or fueling opportunities for zero-emission vehicles, and provision of infrastructure-to-vehicle communications for transitional or full autonomous vehicle systems." Website Access: [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201720180SB1](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB1)

the Energy Commission, relevant state agencies,<sup>9</sup> and the utilities, to provide brand-neutral, unbiased support in areas such as:

- **Stakeholder Coordination.** The Ombudsman could serve as one of the liaisons between the Energy Commission, state agencies involved with executing the ZEV Action Plan, and other complementary and or/related programs, including the newly-established Energy Commission Block Grant for EV Chargers program, the Strategic Growth Council's Transformative Climate Community Program,<sup>10</sup> the Governor's Office of Planning and Research, and the Governor's Office of Business Development (GO-Biz) ZEV Infrastructure Unit. In addition, the Ombudsman could also serve as a liaison between the existing IOU advisory committees.
- **Data and Information Aggregation.** The Ombudsman could collect and aggregate data and information of various program activities, and archive program information. Through online, open-access portals and data dashboards, the Ombudsman could manage a centralized, publicly-facing, and easily-accessible website (e.g., a resource library) designed to encourage information and data sharing. In addition, to encourage stakeholder engagement, the Ombudsman could hold a series of informational webinars with linkage back to the resource library. Such data would be valuable in benchmarking infrastructure deployment costs that would help future planning initiatives.
- **Research and Information Sharing.** The Ombudsman could facilitate discussions and activities (such as workshops and focus groups) that target stakeholder education and engagement to encourage information and idea-sharing on topics of highest need determined by the Energy Commission and its sister agencies. Topics of discussion could include emergent TE research and policy initiatives. This effort may spawn independent research and data analysis that informs the policy-making processes related to TE, which would strengthen the TE

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<sup>9</sup> 'Relevant State Agencies' would likely include, and not be limited to, Governor's Office of Planning and Research, Governor's Office of Business and Economic Development, Department of Governmental Services, CARB, California State Transportation Agency (CalSTA), and other agencies with TE policy touchpoints.

<sup>10</sup> Through the TCC Program, three geographic areas, including Fresno, Los Angeles, and another to be determined, will soon be the center of investment for \$140 million in program funding. It is highly likely that this high-profile program will be oversubscribed with a diverse array of 'shovel ready' community-level projects. Many of the unfunded projects will have clean technology touchpoints related to green infrastructure, ZEV transportation, smart grid technologies, and energy storage which from CSE's perspective are ideal for coordination with the ARFVTP. See: Transformative Climate Communities Program Final Guidelines Revised to Include Technical Amendments, October 2017, Website Access: [http://sgc.ca.gov/resource%20files/10242017-TCC\\_FINAL\\_GUIDELINES\\_10\\_23\\_17.pdf](http://sgc.ca.gov/resource%20files/10242017-TCC_FINAL_GUIDELINES_10_23_17.pdf)

ecosystem, and could be leveraged to inform a statewide plan update that provides new viewpoints of the rapidly-evolving TE ecosystem.

- **California Sustainable Freight Action Plan (CSFAP) Think Tank.** CSE is appreciative that the 18/19 ARFVTP Draft discusses the CSFAP, which has prioritized the assembly of a sustainable freight think tank.<sup>11</sup> The CSFAP think tank will minimize duplicative processes, promote best practices, and enhance information, idea, and resource sharing. This is especially critical given the diverse range of methods and innovative technologies outlined in the CSFAP. In addition, the think tank will provide the ideal forum to gather data and information to inform the annual Integrated Energy Policy Report, which covers sustainable freight policy. As such, CSE encourages the Energy Commission to consider accelerating the assembly of this think tank.
- **Electric Mobility (E-Mobility) Task Force.** CSE applauds the 18/19 ARFVTP Draft discussion on the emergence of new mobility services,<sup>12</sup> and acknowledges the Energy Commission's current initiatives to pioneer efforts in this sector using ARFVTP funds.<sup>13</sup> CSE encourages the Energy Commission to accelerate support for the e-mobility sector as a key coordinator (i.e., across local, state, and federal agencies)<sup>14</sup> to encourage innovative e-mobility approaches that are aligned with the ARFVTP's mission and consistent with AB 118. This stakeholder group should be comprised of cities that have participated in related initiatives, (e.g., the Smart Cities Challenge)<sup>15</sup>, and should contain representation from jurisdictions that prioritize the deployment of e-mobility solutions (e.g., GoMomentum Station stakeholders)<sup>16</sup>. It should also contain technology subject matter experts. To maximize the environmental and societal benefits of the state's e-

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<sup>11</sup> States the CSFAP, the goal to: "Convene a freight think tank of experts to provide insight into the demands on the future freight transport system and then identify the transformative technologies, solutions, partnerships, and critical steps to meet those demands, consistent with the Guiding Principles." Page 18; Website Access:

[http://www.casustainablefreight.org/documents/PlanElements/Main%20Document\\_FINAL\\_07272016.pdf](http://www.casustainablefreight.org/documents/PlanElements/Main%20Document_FINAL_07272016.pdf)

<sup>12</sup> 18/19 ARFVTP's Draft Staff Report, Page 50.

<sup>13</sup> Recently, the Energy Commission conducted a Request for Information in preparation for a future e-mobility solicitation; Website Access: [http://www.energy.ca.gov/contracts/notices/2016-05-10\\_ARFVTP\\_eMobility\\_RFI.pdf](http://www.energy.ca.gov/contracts/notices/2016-05-10_ARFVTP_eMobility_RFI.pdf)

<sup>14</sup> Notably, the Department of Energy (via the SMART Mobility Initiative) has an existing initiative (NREL; Sustainable Mobility Initiative; Website Access: <http://www.nrel.gov/transportation/sustainable-mobility-initiative.html>); Regional governments (including Southern California Association of Governments), and local governments, are also beginning to convene similar e-mobility groups; In addition, the US-DOT conducted a national Smart Cities Challenge, which included submissions from 12 California cities, (<https://www.transportation.gov/fastlane/77-cities-submit-smart-city-applications>) many of which contained e-mobility concepts.

<sup>15</sup> Smart City Challenge | US Department of Transportation; Smart City Challenge Proposals were submitted by the following California Cities: San Francisco, Chula Vista, Fremont, Fresno, Long Beach, Moreno Valley, Oakland, Oceanside, Riverside, Sacramento, and San Jose. Notably, multiple cities fall within CalEnviroScreen DAC tracts. Website Access: <https://www.transportation.gov/smartcity>

<sup>16</sup> See Contra Costa Transportation Authority (CCTA); Website Access: <http://www.ccta.net/whatsnew>

mobility systems, an E-Mobility Task Force should cover topic including, and not limited to:

- smart mobility and on-demand mobility success stories;
  - e-mobility deployment (scenarios and examples) in disadvantaged communities;
  - intelligent transportation systems best practices;
  - automated vehicle research and initiatives;
  - communications standards and protocols;
  - e-mile measurement practices and protocols;
  - electrification and energy utilization best practices;
  - low and no-carbon electricity options; and
  - permitting, codes, and standards.
- **Fleet Technical Assistance and Training Concierge.** CSE appreciates the continued focus on advanced freight and fleet technologies in the 18/19 ARFVTP Draft, and agrees that, “providing the right solution for the right duty cycle is a key element in reducing GHG emissions from this vehicle sector.<sup>17</sup> To strengthen this informational approach, CSE encourages the Energy Commission to consider the use of a statewide concierge and training program for fleets and sustainability staff to ensure successful project implementation. The operation of a statewide concierge service for technical questions related to the procurement, deployment and management of clean transportation vehicles and infrastructure (across multiple fleet vocations) is essential to realizing the full value of technology being deployed and accelerating the transformation of the marketplace.

From CSE's perspective, investments in clean transportation technologies are delayed and undermined by a lack of third-party technical assistance available to fleet and facility decision makers. Managers struggle to identify suitable vendors for their projects and understand technology choices. Currently fleets are failing to manage these assets effectively in order to accomplish their GHG emissions reductions goals or industry standards. Concierge and extension services show fleets how to establish appropriate project metrics (e.g., e-miles traveled or kilowatt hour utilization measures) and train staff effectively to guarantee project success. As such, CSE encourages the Energy Commission to consider piloting a statewide concierge program for fleet and facility

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<sup>17</sup> 18/19 ARFVTP's Draft Staff Report, Page 63.

managers, which can be scaled, and have demonstrated high utilization rates by stakeholders.<sup>18</sup>

- **A ZEV/Zero Emission Technology (ZET) Technical Working Group for Rail.** CSE suggests that the Energy Commission consider convening a ZEV/ZET Technical Working Group to accelerate clean technology integration consistent with the 2018 State Rail Plan, which would support rapid TE policy integration into regional and statewide rail systems. The recently-published draft 2018 State Rail Plan represents first-of-kind collaboration between rail agencies on ZEV/ZET matters.<sup>19</sup>

To encourage the expeditious implementation of the 2018 State Rail Plan's TE-related initiatives, the Energy Commission should consider channeling resources to this effort and focus on:

- Developing ZEV-focused intermodal plans with an emphasis on EVSE deployment in high-density, highly-trafficked, intermodal areas (such parking lots, transit depots, passenger rail stations, and other hubs);
- Exploring and addressing cross-cutting ZEV/ZET deployment challenges and opportunities for the rail sector (passenger and freight) from the energy perspective, (e.g., electrified rail traction power to support power for on-road vehicles, tactics to manage rail energy load, other methods to explore clean energy solutions, etc.); and
- Identifying opportunities to connect the 2018 State Rail Plan's ZEV/ZET activities and policies with California's accelerated ZEV policy ecosystem.

## Conclusion

CSE appreciates the opportunity to provide these comments in response to the November 7, 2017 Meeting and Public Workshop discussing the 18/19 ARFVTP Draft. CSE encourages the Energy Commission to consider leveraging 'emergent opportunities' funding to assemble the following accelerator groups:

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<sup>18</sup> An infrastructure-only program in San Diego alone averages a volume of 150 inquirers per year leading to basic, intermediate and advanced technical assistance.

<sup>19</sup> 2018 Rail Plan, States the 2018 State Rail Plan: "Electrification and Zero Emission Technology (ZET) The 2040 Vision recognizes opportunities to electrify or deploy other zero emission vehicle (ZEV) technology on as much of the intercity passenger rail network as possible, which allows the system to be operated in a more efficient, cost-effective, and cleaner manner than is possible with existing diesel-powered locomotive technology." Page 106; Website Access: [http://www.dot.ca.gov/californiarail/docs/CSRP\\_PublicReleaseDraft\\_10112017.pdf](http://www.dot.ca.gov/californiarail/docs/CSRP_PublicReleaseDraft_10112017.pdf)

- Transportation Electrification Ecosystem Ombudsman;
- California Sustainable Freight Action Plan (CSFAP) Think Tank;
- Electric Mobility (E-Mobility) Task Force;
- Fleet Technical Assistance and Training Concierge;
- A ZEV/Zero Emission Technology (ZET) Technical Working Group for Rail.

Please continue to consider CSE a resource on these and other matters and feel free to contact Paul D. Hernandez, CSE's Sustainable Transportation Infrastructure Policy Manager, with any questions.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Paul D. Hernandez". The signature is fluid and cursive, with a large loop at the end.

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