



DATE: April 14, 2017

TO: Strategic Growth Council
1400 Tenth Street
Sacramento, CA 95814
Via e-mail to: ahsc@sgc.ca.gov

FROM: Center for Sustainable Energy® (CSE)

RE: Center for Sustainable Energy's Response to the Draft Fiscal Year (FY) 2016-17 Affordable Housing and Sustainable Communities (AHSC) Program Guidelines

The Center for Sustainable Energy® (CSE) is pleased to provide these comments in response to the Strategic Growth Council's (SGC's) *Draft Fiscal Year (FY) 2016-17 Affordable Housing and Sustainable Communities (AHSC) Program Guidelines*, (*Draft AHSC Program Guidelines*).

CSE works with policymakers, public agencies, local governments, utilities, businesses, and civic leaders to transform the energy marketplace and accelerate the transition to a clean energy future. Our clean energy future depends on a strong, low carbon economy that provides abundant jobs and business opportunities, a high quality of life, and a clean, healthy environment. This includes the accelerated adoption of zero-emission vehicles (ZEVs) and transportation electrification technologies, renewable energy, distributed generation, energy efficiency, and building performance technologies—all of which can work together to contribute to air quality improvements and greenhouse gas (GHG) emissions reductions to meet our long-term climate goals.

CSE widely supports the SGC's AHSC Program and is pleased with the direction of the *2016-17 Draft AHSC Program Guidelines*. Accordingly, CSE provides the following comments:

1) Enhanced Energy Efficiency, Water Efficiency, and Renewable Energy Provisions

CSE appreciates that clean technology provisions have remained as eligible cost components of a capital AHSC project¹ and is pleased to see the revised scoring criteria, which prioritizes "Energy Producer" and "Zero-Net Energy" projects.² CSE views this prioritization as consistent

¹ 2017 AHSC Program Guidelines Draft (March 2017), page 9.

² *Id.* at 25.

with the SGC's Sustainability Objectives as well as the State of California 2016 ZEV Action Plan.³ CSE provides the following recommendations to encourage expanded use of these provisions:

- **Clarify eligible clean technology project types.** CSE recommends that SGC provide expanded guidance on eligible project types. Notably, the Transformative Climate Communities (TCC) Program is currently developing a complementary list of “eligible project types”⁴ as reflected in its Revised Draft Scoping Guidelines. To minimize repetitive processes while ensuring uniformity across programs, CSE encourages the SGC to align these definitions. The most recent iteration of the TCC Program’s scoping guidelines includes definitions for:
 - **Energy efficiency projects** that can measure energy use intensity and projects that include renewable energy as part of total energy supply;⁵ [projects that] minimize the need for new energy infrastructure costs such as transmission and distribution upgrades;⁶ as well as building retrofits, the deployment of smart-grid technologies, and projects that support grid reliability and resiliency by incorporating energy storage.⁷
 - **Water efficiency projects**, such as commercial or institutional and residential water-energy efficiency projects.⁸
 - **Renewable energy projects**, such as solar photovoltaics (PV) and solar water heating.⁹
- **Develop a ‘fast-track’ process for already-approved clean technology projects.** CSE reiterates its position that a ‘fast-track’ process for already-approved projects remains warranted.¹⁰ While SGC’s current draft will prompt clean technology integration opportunities for new investments, the SGC should also consider establishing a tier of funding in AHSC that will target projects that have already been authorized¹¹ to add clean energy to their currently approved investments. This could be done by creating an

³ 2016 ZEV Action Plan states the goal to: “Encourage the installation of energy storage and other demand-side management infrastructure related to ZEVs as part of the Greenhouse Gas Reduction Fund investments made by agencies (including the Strategic Growth Council, through the Affordable Housing and Sustainable Communities program, in order to manage PEV charging with the grid and support hydrogen storage and production,” page 25.

⁴ *TCC Program Revised Draft Scoping Guidelines*, February 9, 2017, page 11, Website Access: <http://sgc.ca.gov/resource%20files/20170209-RevisedDraftScopingGuidelines-TCC.pdf>

⁵ *Id.* at 9.

⁶ *Id.* at 8.

⁸ *Id.* at 12.

⁸ *Id.* at 12.

⁹ *Id.* at 12.

¹⁰ See CSE’s Response Regarding the Strategic Growth Council’s (SGC) Lessons Learned Workshops; Website Access: <https://energycenter.org/sites/default/files/docs/nav/policy/research-and-reports/Center-for-Sustainable-Energy-Response-to-AHSC-Program-Final-PDF.pdf>

¹¹ This application process could take the form of a reapplication, or could be an opportunity to submit an application for additional funding under these provisions.

accelerated approval process for existing investments with projects that are fully designed and shovel-ready. This policy will support uniform deployment of clean technology across all AHSC investments, encourage collaborative efforts between successful projects and clean energy technology providers, provide additional incentives to improve the efficiency of a scoped project or incorporate additional clean energy technologies, and promote the use of existing planning and permitting. These efforts combine to enhance the overall quality of a project and reduce its carbon footprint—all of which can lead to the decrease in repetitive efforts and reduction in project investment costs. By providing these incentives at the time of construction, AHSC increases the marginal value of GHG emissions reduced per dollar invested. Thus, the proposed ‘fast track’ program modification presents an opportunity to contribute even deeper GHG emissions reductions in AHSC Program investments.¹²

CSE recommends the inclusion of the following complementary policy framework, which would encourage collaboration across clean technology strategies:

- **Leverage the AHSC Program to implement AB 327 policy.** There is an opportunity to create additional offerings in the AHSC Program consistent with the AB 327 policy framework, which is currently an unfunded mandate. AB 327 calls for the continued growth of the rooftop solar industry and seeks specific alternatives designed for growth among residential customers in disadvantaged communities. Through complementary policy, the AHSC Program conforms with the language of AB 327 and offers an ideal forum to test the new alternatives designed for solar growth in disadvantaged communities. As such, CSE encourages the SGC to consider making itself available as a “test bed” for the AB 327 alternatives for disadvantaged communities and consider encouraging enrollment in this program when available. CSE also encourages the SGC to consider offering an incentive (e.g., a participation rebate) to entice enrollment in the program. CSE has extensive experience as a program administrator for the Clean Vehicle Rebate Project (CVRP), the Self-Generation Incentive Program (SGIP), and the California Solar Initiative (CSI), and can attest to the value to the consumer of the availability of rebates and other resources in helping grow distributed generation markets.
- **Prioritize projects that align with AB 693’s policy.** CSE also notes the opportunity to align the AHSC Program with AB 693 Program implementation. Pending a California Public Utilities Commission (CPUC) Decision, AB 693 will create a program to provide financial incentives for qualified solar installations at multifamily affordable housing properties. Given the two programs’ shared policy goals related to environmental justice, clean technology adoption, and GHG emissions reductions, CSE strongly encourages SGC to coordinate with AB 693’s implementing agency, the CPUC.¹³

¹² Although priority should be placed on the affordable housing California builds moving forward, the SGC should also consider allowing access to this type of program for the state’s already existing affordable housing units. This tactic would encourage the continued modernization of California’s entire affordable housing infrastructure.

¹³ AB 693, Website Access: https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=201520160AB693

2) Incorporation of Urban Greening

CSE appreciates that the *Draft AHSC Program Guidelines* mandate incorporation of urban greening.¹⁴ Again, CSE recommends that the SGC leverage the TCC Program's emergent definitions of urban greening improvements to avoid repetitive processes by incorporating the following:

- **Urban greening improvement projects**, such as urban forestry and tree canopy plans; enhance or expand neighborhood parks and open space; green roofs and landscaping to mitigate effects of urban heat islands; construct or expand non-motorized urban trails; implement green streets and alleyways; capture, store, and infiltrate storm water for groundwater recharge and use.¹⁵

3) Enhanced Plug-in Electric Vehicle (PEV) Charging Infrastructure Provisions

CSE appreciates that PEV charging infrastructure remains eligible for funding.¹⁶ PEV charging in affordable housing is consistent with the State's ZEV Action Plan¹⁷ and therefore should be encouraged. CSE recommends inclusion of the following policies:

To encourage PEV charging:

- **Verify minimum PEV charging infrastructure thresholds for AHSC projects—and go beyond them.** SGC should ensure that all AHSC investments contain PEV charging infrastructure readiness consistent with Green Building Code Section A4.106.6.2, which states, "in multifamily dwellings at least 3 percent of the total parking spaces, but not less than one, shall be capable of supporting future electric vehicle supply equipment (EVSE)."¹⁸ However, the Green Building Code mandate alone will not ensure the development of EVSE in the AHSC program. As such, CSE encourages the SGC to go beyond this building code mandate by directing a certain quantity of EVSE installations in AHSC buildings. In this regard, CSE encourages SGC to require funded projects to install a certain minimum quantity of chargers, which could be set as an 'EVSE-per-parking space' ratio, as a tactic to encourage PEV adoption. CSE also supports and encourages the SGC to consider providing additional points for applications that can demonstrate this initiative.

¹⁴ 2017 AHSC Program Guidelines (Draft) at 17.

¹⁵ TCC Program Revised Draft Scoping Guidelines at 11-1, Website Access: <http://sgc.ca.gov/resource%20files/20170209-RevisedDraftScopingGuidelines-TCC.pdf>, page 8.

¹⁶ 2017 AHSC Program Guidelines (DRAFT) at 13.

¹⁷ Governor's Interagency Working Group on Zero-Emission Vehicles, Governor Edmund G. Brown Jr., October 2016, page 26, Website Access: https://www.gov.ca.gov/docs/2016_ZEV_Action_Plan.pdf

¹⁸ http://energycenter.org/sites/default/files/docs/nav/programs/pev-planning/san-diego/Appendix_9.23.13%20RPCv2.pdf

- **Harmonize investments with the California Energy Commission’s Block Grant for EV Chargers Program.** SGC should also consider leveraging the forthcoming California Energy Commission (Energy Commission) Block Grant for EV Chargers Program (Block Grant Program), which will distribute \$200 million over the next five years to various EV charger incentive projects across California. The Block Grant Program is intended to accelerate deployment of EVSE. While some of the policy architecture of the Block Grant Program is still under development, it appears that there may be various ways SGC could leverage access to the program as a cost-sharing opportunity (likely as match funding or full funding, in supporting EVSE installation costs). For example, if program design deems applicants as eligible for this funding, SGC’s EVSE provisions, coupled with the Block Grant Program could greatly accelerate adoption in this sector. As such, CSE encourages SGC to coordinate activity with the Energy Commission regarding the Block Grant Program to determine avenues of EVSE cost-sharing.
- **Develop a ‘fast-track’ process to promote PEV charging infrastructure in already-funded AHSC projects.** There will be value in providing access to capital to encourage integration of PEV charging in already completed and/or under construction projects. The reasons for this inclusion are detailed in the ‘fast track’ section (see pages 2 and 3). CSE recommends that SGC consider providing capital for PEV infrastructure upgrades, which would likely accelerate PEV infrastructure deployment.

To encourage ZEV adoption:

- **Establish specific ZEV penetration targets for affordable housing.** State policy prioritizes the rapid and wide spread deployment of ZEVs per two key policy dates, 2020 and 2025.¹⁹ To align with this policy, priority should be given to AHSC Program applications that can set ZEV attainment targets. To ensure transparency, SGC should require AHSC projects to quantify and publish information on anticipated and attained ZEV adoption rates. CVRP rebate statistics can provide a proxy of ZEV adoption by providing census-level data to inform these ZEV attainment targets.²⁰ CSE strongly recommends that the CVRP statistics page be used for this modeling. CSE also encourages SGC to consider rewarding additional points for projects that set penetration targets. Moreover, in order to increase adoption, there should be education and outreach efforts around EVs to increase public interest and adoption.
- **Allow the purchase of ZEVs as an eligible expense for the development of a car sharing service/mobility option at AHSC properties.** CSE recommends SGC consider promoting rideshare and car share activities by encouraging the program applicants purchase, co-own, and manage a clearly defined quantity of ZEVs in each AHSC building. While this policy would require further planning and participation from additional partners (e.g.,

¹⁹ 2020 and 2025 represent the goals as illustrated in the 2013 ZEV Action Plan.

²⁰ Center for Sustainable Energy (2017), California Air Resources Board Clean Vehicle Rebate Project, Rebate Statistics, Website Access: <https://cleanvehiclerebate.org/rebate-statistics>

dealerships, insurance providers, others), it would complement the ZEV Action Plan's policy of "Increasing familiarity of ZEVs by promoting ZEV use in car sharing services, rental car opportunities, and carpool and vanpool programs."²¹ It would also bring vehicle access directly to the AHSC resident, which would create a hands-on experience and opportunity for ZEV use. CSE also encourages SGC to consider rewarding additional points for projects that can demonstrate readiness to purchase ZEVs.

- **Align with emergent ZEV promotional campaigns.** SGC should take an active role in promoting the use of ZEVs in affordable housing units. Notably, the state not only prioritizes the deployment of EVSE in multi-unit dwellings (MUDs) but more broadly supports promotional efforts, such as ride and drives, as a tool to encourage ZEV adoption. The State has set clear goals to hold 20 million test drives of ZEVs by Californians in all regions of the state by 2025, which essentially would expose nearly 2 million people a year to ZEVs.²² In this regard, an AHSC-focused ride and drive effort could play a key role in increasing multi-unit dwelling (MUD) ZEV adoption rates, and as such, coordination with this emergent activity is encouraged. CSE would also recommend education and outreach activities, such as resource fairs for tenants, which would inform residents about the various ZEV incentive programs available, such as CVRP.

To encourage innovative PEV solutions in affordable housing:

- **Prioritize vehicle to grid integration (VGI) pilot programs.** CSE recommends SGC consider testing a VGI pilot program. This policy is consistent with State initiatives seeking to leverage PEVs as a preferred grid resource²³ and harmonizes with the ZEV Action Plan, which prioritizes managed PEV grid charging and "encourage[s] the installation of energy storage and other demand-side management infrastructure."²⁴ VGI is also ideal for integration with onsite renewables. Accordingly, the AHSC Program presents the ideal MUD setting to test aggregated PEV load, bidirectional charging, and other load management strategies, which will provide valuable data for researchers, stakeholders, and industries seeking to deploy widespread VGI systems. CSE also encourages SGC to consider rewarding additional points for projects that propose VGI pilots.

²¹ *2016 ZEV Action Plan*, page 16; Website Access: https://www.gov.ca.gov/docs/2016_ZEV_Action_Plan.pdf

²² *2016 ZEV Action Plan* at 16, Website Access: https://www.gov.ca.gov/docs/2016_ZEV_Action_Plan.pdf

²³ Notably, in future scenarios, PEVs and PHEVs may function as a preferred resource. The CPUC, Energy Commission and the California Power Authority adopted an Energy Action Plan. CPUC discusses a "loading order" of preferred resources to meet California's increasing energy needs. Energy efficiency and demand response are first, followed by renewable sources and clean distributed generation. Electric vehicles are also discussed in length as a potential preferred resource. Website access: http://www.cpuc.ca.gov/NR/rdonlyres/1F71A749-6424-4F49-B7CA-C7C58A181722/0/EnergyLeadership1pagers_v13.pdf

²⁴ *Governor's Interagency Working Group on Zero-Emission Vehicles*, Governor Edmund G. Brown Jr., October 2016, page 26, Website Access: https://www.gov.ca.gov/docs/2016_ZEV_Action_Plan.pdf

4) *Transit Access Passes*

CSE appreciates that SGC will mandate the use of discounted rate (or free) transit passes.²⁵ This policy is consistent with a diverse array of equity policies, including the ‘mobility options’ provisions, as codified in SB 1275.²⁶ As such, the AHSC Program provides an ideal environment to test commuter-focused incentive strategies that promote mobility and equitable access policies. CSE provides the following recommendations:

- **In lieu of a ‘transit pass’, provide ‘mobility passes’ that ensure multi-modal access.** SGC should encourage multi-modal policies by promoting access to a diverse array of transportation alternatives including bike sharing, car sharing, car rental, as well as ride sourcing and ride sharing (via transportation network companies). This should be accomplished by providing the equivalent of Metropolitan Transportation Commission’s Clipper Card,²⁷ a credit/debit card account, and/or other voucher that supports multi-modal access. CSE can attest to the value of providing consumer incentives to encourage clean technology adoption, which encourages consumer behavioral change, and views providing transit passes as an ideal incentive to promote the use of transit services. To expeditiously develop this mobility pass, CSE would encourage SGC to have initial, early conversations with the required agencies that can actualize this multi-modal access.
- In addition, CSE recommends that SGC prioritize data gathering related to these travels, which can be leveraged as a market transformation tool to inform policy and strategy. For example, stakeholders could measure transit commuter incentive usage and route patterns and assess effectiveness and utilization rates, which would inform the decision-making process. Thus, CSE encourages SGC to prioritize the gathering of this key data and to consider rewarding additional points for projects that can gather this data.

5) *Prioritize Clean Technology Job Programs focused on Renewable Energy, Energy Efficiency, and Transportation*

CSE is pleased that SGC seeks to reward projects that implement at least one workforce development strategy.²⁸ CSE agrees that workforce development should focus on clean technology training and education specifically across the transportation, renewable energy, and energy efficiency sectors—all of which will support SGC’s job growth principles and strategies, while preparing the workforce of the future. There has been and continue to be substantial

²⁵ 2017 AHSC Program Guidelines (Draft) at 17.

²⁶ Per SB 1275, a “Mobility option” means a voucher for public transit or car sharing, Website Access: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB1275

²⁷ Metropolitan Transportation Commission Clipper Card, Website Access: <https://www.clippercard.com/ClipperWeb/index.do>

²⁸ 2017 AHSC Program Guidelines (Draft) at 27.

growth of the clean technology workforce sectors, with record growth in the solar industry,²⁹ a rapidly growing energy storage market,³⁰ and the continued growth in ZEV companies seeking an expansion of California's automobile manufacturing capabilities. As noted in recent research by the Union of Concerned Scientists, transportation electrification (in this case, truck and bus electrification) can be a catalyst for boosting economic opportunity in underserved communities, with many occupations in heavy-duty electric vehicle manufacturing increasing the need for electrical skills.³¹ Moreover, transportation-related training and education also aligns with the California Sustainability Freight Action Plan (CSFAP)'s goals to develop regional workforce development initiatives³² as well as with policies embodied in the ZEV Action Plan. Consequently, the expansion of clean technology increases the demand for specialized training and education. CSE recommends that SGC prioritizes clean technology workforce and training as part of AHSC's program investments.

6) California High-Speed Rail Station Planning Alignment

CSE supports inclusion of project points that encourage alignment with the California high-speed rail (CHSR) system³³ and appreciates that as CHSR station area plans are implemented, SGC may prioritize these investment areas.³⁴ This policy promotes connectivity between AHSC Program investments and highly-trafficked intermodal station areas, which will promote in-fill and transit-oriented development and encourage equitable access to the CHSR system for the AHSC Program residents. Moreover, CHSR will operate as the State's largest ZEV as a 100% renewable energy powered Net-Zero Energy system,³⁵ which will provide additional environmental and societal benefits to regions and communities and present future opportunities of program development in areas related to transportation electrification.

7) Expanded Roles of Metropolitan Planning Organizations (MPOs)

CSE appreciates that the SGC is evaluating the role of MPOs in AHSC applications per SGC direction, as this may prompt expanded participation from MPOs. CSE widely supports agency collaboration, which promotes shared resource usage and idea sharing. CSE will continue to follow the development of this collaboration.

²⁹ The solar sector has added 75,000 new employees in the 2016, Los Angeles Times:
<http://www.latimes.com/business/la-fi-solar-industry-job-growth-20160209-story.html>

³⁰ The energy storage market grew 243 percent in 2015 — the largest year on record, GreenTech Media:
<http://www.greentechmedia.com/articles/read/us-energy-storage-market-grew-243-in-2015-largest-year-on-record>

³¹ *Delivering Opportunity: How Electric Buses and Trucks Can Create Jobs and Improve Public Health in California*, page 33, Website Access: <http://www.ucsusa.org/sites/default/files/attach/2016/10/UCSElectric-Buses-Report.pdf>

³² *California Sustainability Freight Action Plan*, page C-78.

³³ *2017 AHSC Program Guidelines (Draft)* at 26.

³⁴ *Id.* at 33.

³⁵ *California High-Speed Rail Policy Directive: Poli Plan-03*, August 19, 2013, page 7, Website Access:
http://www.hsr.ca.gov/docs/programs/green_practices/sustainability/Sustainability_signed_policy.pdf

Conclusion

CSE appreciates the opportunity provide this response to SGC regarding the *Draft AHSC Program Guidelines*. Please continue to consider CSE a resource on these and other matters, and feel free to contact Paul D. Hernandez, CSE’s Transportation Electrification Policy Manager, with any questions or for clarifications regarding these comments.

Respectfully Submitted,



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