

April 10, 2017

Mary Nichols
Chair, California Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: AEE Comments on the 2017 Scoping Plan Update

Dear Chairwoman Nichols,

Advanced Energy Economy (AEE) is pleased to provide feedback on the 2017 draft update to the Scoping Plan. AEE is a national association of businesses dedicated to transforming public policy to enable a prosperous world that runs on clean, secure, affordable energy. We are comprised of over 100 companies both large and small across the technology spectrum, including energy efficiency, solar, wind, fuel cells, storage, biofuels, electric vehicles, demand response, advanced metering, and enabling software. Our members also include companies that have made a commitment to power their operations with advanced energy and are working with us to break down the barriers that inhibit them from reaching their sustainability goals.

In reviewing the latest draft, we offer the following high-level comments:

Establishing and maintaining market certainty is critical to any proposed scenario. The Air Resources Board has described several regulatory scenarios in the plan. AEE and our member companies believe that while program design and structure are critical, all regulatory structures and rules must lead to a clear and strong price on carbon and establish market certainty. A strong market will enable deeper reductions in greenhouse gas (GHG) emissions and provide the private sector with much-needed investment and market certainty. We understand the existing program may need adjustment, but we do believe cap and trade has enabled cost effective GHG emissions reductions while enabling economic growth and investment in the state.

State agencies must be aligned and work together. The success of the State's climate and energy programs largely depend on implementation efforts led by the Air Resources Board, California Energy Commission (CEC) and the Public Utilities Commission (CPUC). We encourage state agencies to work with one another in developing scenario analysis and methodologies moving forward. State agencies must be in-sync on inputs and consistent on methodology so that the various programs are well integrated and working toward the same goal. This is particularly important as the CPUC and CEC are working on implementation plans for SB 350 compliance, including the associated IRP development.

Maximizing public funds and leveraging private capital are necessary for optimization. AEE agrees with the draft scoping language that "significant investments of private capital, supported by targeted, priority investments of public funding, are necessary to scale deployment and to maximize benefits. Public investments can help incentivize early action to accelerate market transition to cleaner technologies, which can also be supported by regulatory measures." In addition, the state must do a better job of coordinating existing energy finance programs, including the cap and trade revenues, to reduce overlap, increase effectiveness and better address capital needs; align programs around the State's energy and climate strategy; orient programs to animate markets and maximize leverage of private capital.

The Scoping Plan should take into account the role of integrating technologies to meet a 50% RPS or a 50% increase in EE. The State has been cultivating the development and deployment of a range of advanced technologies to reduce GHG emissions and secure a reliable electricity system. These technologies have been supported through investor-owned utility program development and are in the early stages of wholesale market participation. In order for California to meet its GHG emissions reduction goals, the State must consider these integrating technologies and their ability to participate in the wholesale market as a viable alternative to natural gas-fired generators. Demand response and storage could, for example, be key to meeting the State's RPS goals. Ignoring the role these technologies play in integrating renewables into a sustainable and reliable grid infrastructure could lead to increased reliance on GHG emitting technologies and mitigate the reductions achieved through renewable and energy efficiency gains.

Achieving energy efficiency goals in SB 350 will require a significant ramp-up in retrofits. The update identifies implementation of SB 350 (de León) as a priority, which would require a doubling of energy efficiency by 2030. ARB indicates that energy efficiency will need to achieve 54 MMTCO₂-e, nearly as much as mobile sources and the 50% RPS. In order to achieve this magnitude of efficiency-related GHG emissions reductions, the State will need to vastly increase – to millions per year – the number of existing homes and buildings that are retrofitted with at least a basic energy efficiency upgrade. This will require the need to both optimize existing energy efficiency programs to maximize GHG emissions reductions (such as CSD's Low-Income Weatherization Program), as well as devote additional resources to new, but proven, energy efficiency retrofit approaches.

The Scoping Plan should acknowledge the important role of the customer in achieving the State's GHG emissions reduction goals. Engaging utility customers and providing them with tools to understand their low carbon energy choices to make informed decisions is critical to attaining the State's GHG emissions reductions goals. Customers will need continued education so they can evaluate the best options for participating in new advanced energy programs, rate offerings, and low carbon technologies. The Scoping Plan discusses stakeholder engagement, but misses the importance of empowering consumers to play an active role in the State's advanced energy future.

The Scoping Plan should ensure that the Voluntary Renewable Energy (VRE) Reserve Account be continued. The VRE Reserve Account maintains historical benefits to voluntary purchasers of renewable energy that are otherwise removed by the cap, namely avoided grid emissions beyond what is required by law. Allowances should continue to be allocated to the VRE Reserve Account beyond 2020 in order to avoid risk of depleting VRE allowances, which would significantly increase the cost of voluntary RE with the benefits it has always provided and/or damage voluntary demand for renewable energy.

The Scoping Plan should recognize the value of all technology and financing mechanisms available today and those that may emerge in the future. A broad suite of technology solutions including renewables, energy efficiency, demand response, electric vehicles, storage, fuel cells and many more are needed to meet the state's ambitious climate and energy goals. This includes technologies that reduce the use of water and capture energy savings through their applications. It also includes third-party innovative financing programs such as PACE that allow customers to afford much needed upgrades to their homes and businesses. Finally, emerging technologies will likely play a vital role as the grid becomes even more distributed. The Scoping Plan should recognize this dynamic and encourage implementing agencies to account for this diversity in application and opportunity for innovation.

Transportation electrification is a game-changer. The State must think beyond the status quo if California is going to achieve the incredible transportation electrification targets set by Governor Brown. The current incentive programs for advanced transport vehicles must be restructured so that they are



well funded and consistent. The scoping plan should highlight the value, and promote the expansion, of used electric vehicle incentive programs in achieving emission reductions in local communities. Mass electrification of passenger vehicles will reduce overall emissions, but can also provide real benefits to the State's electricity system and grid if structured correctly. Electrification of buses and fleets also creates an opportunity to provide health and environmental benefits for low-income and disadvantaged communities. Addressing passenger vehicles and promoting electrification of transit are critical to meeting the State's targets.

In addition, we offer the following specific line item edits in the draft document:

- Key Sectors: Table IV-1. Cross Sector Relationships, p. 85
 - Add "enabled by grid modernization" to vehicle-to-grid power language
 - Add language acknowledging "medium to heavy-duty fleets" to clean transportation piece
- Key Sectors: "Looking to the Future," p. 89
 - Adjust language under *Electricity Goals*, second bullet point, to read "Reduce fossil fuel use, including by shifting patterns of usage especially to periods of surplus renewable energy"
 - Adjust language under *Electricity Goals*, third bullet point, to read "Reduce and shift energy demand"
- Transportation Sustainability: "Looking to the Future," p. 102
 - Adjust language under *Vibrant Communities and Landscapes, VMT Reduction Goals*, fourth bullet point, to read: "Promote transportation fuel system infrastructure for electric, fuel-cell, and other emerging clean technologies that is standards-based and accessible to the public where possible, enabled by a modernized, bi-directional electricity grid capable of handling electrified transportation"

We thank you for your efforts in developing the 2017 Scoping Plan Update and working to ensure all stakeholder comments are reviewed and considered throughout its development. We look forward to working on implementation and partnering with you as this moves forward. Please feel free to reach out to us with any questions.

Sincerely,



Amisha Rai
Senior Director of California Policy
Advanced Energy Economy

cc: Members of the California Air Resources Board

