SolarCity

November 13, 2015

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

RE: Second Triennial Cap and Trade Investment Plan (FY 2016-2019)

Dear Chairman Nichols,

SolarCity respectfully submits the following comments on the draft Second Triennial Cap and Trade (C&T) Investment Plan.

Background

SolarCity is a full service solar power provider for homeowners and businesses – a single source for engineering, design, financing, installation, monitoring, and support. The company provides cost-effective financing that enables customers to go solar without high upfront costs. SolarCity has more than 6,000 California employees, based at more than 30 facilities around the state and, as of September 30, 2015, has provided or contracted to provide clean energy services to more than 298,000 customers nationwide.

In addition to rooftop solar, SolarCity develops and deploys other non-solar distributed energy resources (DER) for both residential and commercial applications. Specifically, SolarCity offers smart thermostats and battery energy storage systems to help customers manage their energy use. Accordingly, SolarCity has a strong interest deploying technologies that help reduce the state's greenhouse gas (GHG) emissions and meet its climate and clean energy goals.

Overall Comments

SolarCity commends the leadership of the California Air Resources Board (ARB) and staff in developing the second triennial C&T investment plan in a timely and efficient manner. We therefore appreciate the opportunity to comment in particular on the importance of including and recognizing the value of a credit enhancement program for low income and minority communities and energy storage in achieving the GHG emissions reduction goals.

Credit Enhancement Program – low income and minority communities

As part of the "*Efficient Financing Mechanisms to Maximize Investment"* section[1] of the draft C&T investment plan, ARB has included the opportunity to develop a credit enhancement program. A credit enhancement program should be evaluated as one near term mechanism for expanding beyond simple grant and rebate financing to date in order to broaden access to solar power in California to lower income and minority communities. In particular, a credit enhancement mechanism would be capital-efficient because it would allow California to multiply the private capital deployed in the state by leveraging public funds to initiate the investment. SolarCity has submitted separate comments under a coalition of stakeholders on the opportunity for a credit enhancement program. The coalition letter highlights our support for the inclusion of a credit enhancement mechanism of at least $50 million in the second

[1] Cap and Trade Auction Proceeds Second Investment Plan: Fiscal Years 2016-17 through 2018-19, pp. 29; http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/draft-second-investment-plan.pdf

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triennial C&T investment plan, which would lower the cost to access solar for lower income communities that have not been able to directly access the benefits of rooftop solar.

Distributed Energy Resources - energy storage

Distributed energy resources (DERs) are an important element of California's clean energy future and should play an integral role in the investment of C&T revenue. To date, the C&T revenue allocation has not emphasized or provided explicit support for energy storage, a growing and increasingly important resource in California. SolarCity is pleased to see that the draft C&T investment plan specifically calls for support of energy storage paired with renewable energy in the clean energy and energy efficiency section.

Energy storage is an emerging technology that can help provide GHG emission reduction as well as important grid benefits such as frequency regulation, renewable integration, and peak load shifting/load following capabilities. As deployment of renewable energy increases, storage can support intermittent generation (such as wind and solar) by firming and shaping their generation profile. In addition, storage can absorb excess renewable generation at times when it is abundant to avoid renewable curtailment, and it can release energy back to the grid quickly to avoid the use of emissive fossil plants at times of the day when renewable output declines. Finally, storage can be deployed quickly and easily in transmission constrained areas, adding to grid reliability.

Therefore, one effective use of C&T revenue to reduce GHG emissions is to support the implementation of an incentive program for energy storage systems paired with renewable energy devices. A program such as this could be structured similar to the successful California Solar Initiative (CSI) and would help to contribute to the deployment of cost-effective storage solutions that will be necessary to support renewable resource integration under a 50% Renewable Portfolio Standard (RPS).

According to a recent report developed by the Union of Concerned Scientists "deploying 3GW of non-generation flexibility reduces renewable curtailment by 70% -- as well as GHG emissions and the cost of producing power – at a 50% RPS."[2] The report also points out that one of the key reasons for why these options (such as storage) reduce curtailment is that "they provide online reserves without generating electricity, so grid operators do not have to curtail renewable power output."[3] Beyond supporting renewable resource integration under a 50% RPS, SolarCity believes that an incentive program for storage paired with renewables would provide a glide path for California to meet its carbon reduction goals for 2030 and 2050.

Conclusion

It is important that ARB specifically recognize the value of a credit enhancement program for C&T revenue allocation as well as include funding opportunities for energy storage and other DERs, emerging GHG emissions reducing technologies in the California market.

SolarCity thanks the Air Resources Board for the opportunity to comment on the second triennial C&T investment plan. We look forward to being an active participant in the stakeholder process going forward.

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[2] Achieving 50 Percent Renewable Electricity in California, pp. 3; http://www.ucsusa.org/sites/default/files/attach/2015/08/Achieving-50-Percent-Renewable-Electricity-In-California.pdf

[3] Achieving 50 Percent Renewable Electricity in California, pp. 3; http://www.ucsusa.org/sites/default/files/attach/2015/08/Achieving-50-Percent-Renewable-Electricity-In-California.pdf

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Respectfully submitted,

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