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*Comment Received From: Brandon Smithwood*
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## Comments of the Solar Energy Industries Association on Aliso Canyon Electricity Reliability Crisis

Comments attached

*Additional submitted attachment is included below.*

April 22, 2016

Robert B. Weisenmiller
Chairman
California Energy Commission, Dockets Office, MS-4
1516 Ninth Street, Sacramento, CA 95814-5512

Submitted electronically to:
https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=16-IEPR-02

Dear Commissioner Weisenmiller:

We appreciate the opportunity to comment on the *Aliso Canyon Action Plan to Preserve Gas and Electric Reliability for the Los Angeles Basin*. In the Action Plan, the state agencies, CAISO, and LADWP identify several actions to reduce natural gas and electricity use through demand-side initiatives including: new and existing programs asking customers to reduce natural gas and electricity consumption; expanded gas and electric efficiency programs targeted at low-income customers; expanded demand response programs that target air conditioning and large commercial use; and a refocused solar thermal program. These are all sound measures, but we suggest that significant electricity savings, and therefore gas savings, can be achieved through accelerated and additional deployment of solar photovoltaic capacity.

I have attached the Action Plan that SEIA has developed in response to the Aliso Canyon crisis. SEIA has identified categories of additional solar generation capacity potential that could be achieved in the near term. We estimate that if actions outlined in the attached Action Plan are taken, the industry could bring more than 7 megawatts of additional solar capacity online in the LA Basin by August 1st and more than 34 megawatts of additional capacity by December 1st. In residences, additional solar generation can be accompanied by electric hot water heaters, further reducing gas consumption. In order to realize the potential new solar generating capacity, SEIA has identified a number concrete actions that the Public Utilities Commission, Los Angeles Department of Water and Power, SoCal Gas, Southern California Edison, and the Legislature can take.

As the agencies, utilities, CAISO and lawmakers consider short term strategies to meet needs in 2016 and for the 2016/2017 winter, we encourage these entities to begin taking action now on strategies that will yield substantially greater amounts of new solar generation in the basin in 2017. Indeed, many of the actions identified to meet 2016 needs will facilitate expanded opportunities for new generating capacity in 2017. However, these actions need to be taken now to show results in 2017.

Thank you and your colleagues in the joint task force for considering these recommendations.

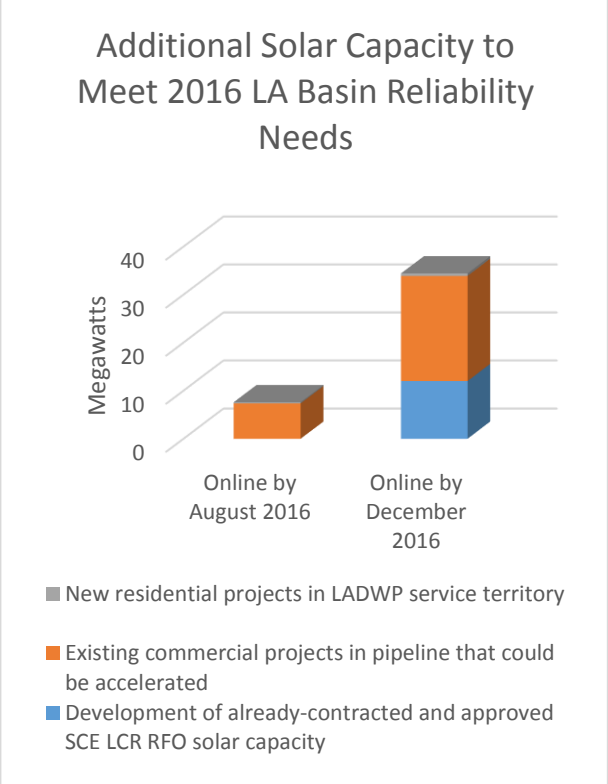
Sincerely,

Brandon Smithwood
Manager, California State Affairs
Solar Energy Industries Association

# Solar as a Strategy to Solve the Aliso Canyon Electricity Reliability Crisis

## An Action Plan from the Solar Energy Industries Association

Increased solar deployment will mitigate the reliability challenges facing the LA Basin this coming summer and winter. To meet the near-term challenge, SEIA has identified a number of near-term strategies that can help accelerate projects already in the development pipeline and spur new development activity. As shown in Figure 1, we have developed a conservative estimate of new generation capacity, beyond existing solar installation activity, that could be deployed this summer and by the coming winter. If the strategies and actions outlined below were implemented, they could yield more than 7 megawatts of new generating capacity in the LA Basin by August and more than 34 megawatts by December.




While the utilities, CAISO, and the state energy agencies have been focusing on 2016 needs, we strongly encourage these entities and other policymakers to begin implementing needed reforms, and establishing new policies and programs, with an eye towards 2017. Such forward-looking action is needed now to accelerate the solar sales and project development cycle, and signal businesses to scale up to deploy far greater amounts of new capacity.

Given recent industry growth, solar is already on track to reduce electricity consumption in the LA Basin. SEIA, however, has identified additional actions that could be taken to realize and accelerate additional solar deployment. The near-term additional capacity, identified in Figure 1, falls into three main categories: 1) additional residential solar deployment in LADWP's service territory, 2) accelerating commercial projects already in the project development pipeline; and 3) development of solar projects already approved and contracted as a result of Southern California Edison's (SCE) Local Capacity Requirement (LCR) Request for Offers (RFO). These solar electricity generation efforts can be complemented by solar thermal efforts contemplated by the state agency-CAISO-LADWP joint task force and others, but also by programs to leverage solar sales to include retrofits that replace natural gas water heaters with electric hot water heaters using electricity from on-site solar generation.

Realizing these potentials requires a number of distinct actions. In the case of capacity from the LCR RFO solicitation, SCE need simply waive its contract condition requiring a "final and non-appealable decision." However, to accelerate and increase residential and commercial solar deployments, a number of actions are needed across several agencies, local authorities, utilities, and by the state legislature. SEIA has therefore organized recommended actions by the entities that will need to act in order to realize increased solar capacity in 2016 and 2017.

# Recommended Actions for Accelerating 2016 Solar Deployment in the LA Basin

**Actions by the Public Utilities Commission**

1) **Order SoCalGas to expedite meter moves needed for solar installations and do so free of charge**
   In cases where a gas meter must be moved as the result of a solar system installation, SoCalGas is often slow in coming to customer homes to move the meters, to the detriment of solar customers. The utility should accelerate these meter moves and do so free of charge.

2) **Lift the cap on participation in SCE's Option R rate schedule**
   SCE's Option R is a rate schedule that many customers find conducive to solar project economics. The rate schedule currently has a customer participation cap. This rate schedule may reach its cap before the cap can be revisited in SCE's pending General Rate Case. Reaching the cap would create an unnecessary impediment to the deployment of additional commercial solar in the affected area, just as the state needs this generation.

**Actions by SCE**

1) In response to the local capacity needs resulting from the retirement of the San Onofre nuclear power plant retirement, SCE has contracted with a number of solar and other "preferred resources" through its Local Capacity Requirement Requests for Offers (LCR RFOs). The Commission has approved one of these RFOs (West LA Basin RFO) and is expected to vote on the other (the Moorpark RFO) in May. However, SCE has a contract clause that says they won't move forward with any projects unless and until the CPUC decision is "unappealable." While some parties have appealed the CPUC decision on the West LA Basin RFO, those appeals were based on the gas resources that won contracts; no parties have contested the preferred resources that won contracts. In order to bring the preferred resources (including 12 megawatts of solar) on line, SCE need simply waive its contract condition requiring a "final and non-appealable decision."

**Actions by Los Angeles County, City of Los Angeles, Home Owner Associations, and local entities in the LA Basin**

Developing projects is difficult in the LA Basin. The current pipeline of projects should be expedited, and common-sense reforms mentioned below should be implemented to help bring new solar generation on in 2017 as well.

1) **Improve Ballasted Rooftop PV Requirements**
   Ballasted rooftop PV systems have not been consistently approved in the greater LA Basin. In particular, LA County requires anchoring of arrays. A broader, city/county-wide approval process outlining the requirements for having ballasted un-anchored rooftop PV systems approved would vastly improve access to the many large, unobstructed rooftops that are perfect for ballasted arrays.

2) **Simplify Standard Special Inspections, Testing, and Listing Requirements**
Several municipalities like City of Los Angeles and County of Los Angeles have unique requirements associated with their testing labs or special listing requirements. The City of Los Angeles has their own testing lab, which requires manufacturers to update the approved testing report for their components on an annual basis, which makes it difficult to maintain for a single jurisdiction. All of this administrative burden adds to the cost and time to obtain a permit while adding little to improve safety of the installation. A comprehensive and transparent process focusing on key components in the system that impact life safety would expedite the process.

3) **Reduce Permit Process, Costs, and Durations**
Every authority having jurisdiction (AHJ) operates as an autonomous jurisdiction, setting their own permit costs and building permit or inspection requirements. Some hire 3rd-party reviewing agencies, some require permit review, like fire approval, that must be obtained from a different department. It is very difficult to determine what the permit process is for each AHJ, understanding what their key design requirements are (site exposure, wind speed, etc.), what the permit will cost and how long it will take to have it approved.

Little progress has been made in standardizing the permit process and requirements for commercial-scale PV projects. Creating a document outlining the explicit permit requirements and design guidelines for commercial solar to help set expectations on permit cost, special requirements, and approval duration that is adopted by all LA Basin AHJ's would accelerate deployment.

While progress has been made on residential solar systems, the patchwork of regulation for standardized "cookie-cutter" residential solar systems significantly increases the "soft costs" of going solar, delays project development, and decreases customer satisfaction

**4) Municipalities in the LA Basin should move quickly to come into compliance with AB 2188**
Governor Brown signed AB 2188 in September of 2014, which required each city or county to adopt an ordinance to expedite solar permitting for residential systems by September 30th, 2015. Many municipalities have failed to adopt these ordinances and as a result permitting remains slow in these jurisdictions. The California Solar Initiative Permitting Guidebook provides a variety of "off-the-shelf" standardized forms and checklists, as well as recommendations for a streamlined permit and inspection process that municipalities can easily and quickly adopt to come into compliance.

**5) Address barriers to solar deployment resulting from alleged property violations**
A number of AHJs will hold a residential solar permit due to alleged violations for unpermitted development unrelated to the solar project. This can significantly delay or prohibit homeowners from installing systems on a properly permitted structure. Eliminating this requirement would encourage solar growth in the LA Basin.

**6) Require Home Owner Associations (HOA) to comply with applicable state laws**
While the Solar Rights Act prohibits HOA's from disallowing solar on HOA-controlled neighborhoods, in practice many HOAs effectively deny homeowners to put solar on their roofs. Relevant authorities should ensure HOA compliance with the Solar Rights Act and other existing law, including AB 2188.

**Actions by the Los Angeles Department of Water and Power**

1) **Lift the ban on third-party power purchase agreements for commercial solar systems**
   Unlike most other utilities in California, LADWP customers are prohibited from entering into a power purchase agreements (PPAs) with a solar company. Given the popularity of these third-party PPAs, this restriction is limiting the number of otherwise potential solar customers who could install solar and reduce gas-fired electricity consumption. We ask that this prohibition be lifted at least for commercial systems.

2) **Make targeted reforms to facilitate residential project development**
   These reforms include:
   i. Streamlining the electric panel upgrade process
   ii. Eliminating LADWP's policy to not compensate solar NEM customers for their annual net surplus generation, a policy which is unique among California utilities
   iii. Removing the $22 interconnection fee.
   iv. Allowing introduction of RMA technology to avoid electrical panel upgrades

3) **Institute an additional rebate for solar customers**
   A rebate could be targeted to bring system payback periods in line with typical customers in SCE territory

**Actions by the Legislature**

1) **Pass legislation to provide rebates for replacement of residential natural gas water heaters with electric water heaters paired with rooftop solar PV generation**

   The California State Legislature should establish a pilot program for the L.A. Basin to test incentives and technology requirements for replacing natural gas hot water heaters with electric hot water heaters powered by on-site solar PV generation. Funding for such a program could come from SoCalGas shareholder penalties for Aliso Canyon or from cap and trade revenue; funding should not come from the CSI-thermal program funds. In order to minimize gas consumption for electricity generation, electric water heaters should be designed to heat water primarily using rooftop solar PV rather than from grid power (i.e., they would include communications, controls and mixers that would enable them to heat water entirely from mid-day solar energy, using the thermal properties of water to store that energy for evening use).

   This program would be designed to leverage the labor, permitting, and economies of scale in a rooftop solar PV installation to achieve additional energy savings by eliminating natural gas use in water heating. When a solar PV system is being installed, it would take a relatively small additional cost to add a few extra PV panels and replace the natural gas water heater with an electric water heater designed to work in conjunction with the PV array. Nevertheless, the unusually low price of natural gas today makes the economics of this arrangement challenging, so a modest rebate would be necessary to boost this market. If a rebate program for grid-enabled electric water heaters paired with solar PV were to open in the near future, we estimate such a program could install enough water heaters by August 1, 2016 to displace roughly 340,000 therms/yr and enough water heaters by December 1, 2016 to displace 935,000 therms/yr of natural gas.

# Recommended Actions to take in the Next Several Months in Order to Bring Additional Solar Generating Capacity On-line in 2017

**Actions by the Public Utilities Commission**

1) **Deny SCE's proposal to end the Solar Photovoltaic Program (SPVP) and order it to conduct a new solicitation as soon as possible.**
   Earlier this year, SCE filed a petition to modify D.14-06-048, ending the SPVP program after only procuring 1.8 MW in its fifth solicitation. The Public Utilities Commission should deny this petition and move to utilize the existing program capacity, if not expand it further. The limited procurement left roughly 10 MW of projects unselected in the most recent solicitation and nearly 25 MW of remaining program capacity. The SPVP is a proven program for deploying 1-2 MW-size rooftop and ground-mount projects with the utility as the off-taker; it could be expanded to bring generation on line in the basin in 2017.

2) **Order improvements in SCE's interconnection process**
   SCE typically takes 5 to 6 months to perform an interconnection study and present upgrade requirements to a commercial solar customer; this timeframe could be reduced. Additionally, following the Group Interconnection Study, SCE could reduce by half (from approximately 1 year to 6 months) the timeframe that the utility provides itself to install interconnection upgrades.

**Actions by the Legislature**

1) **Develop a targeted incentive based on the successful California Solar Initiative**
   The California State Legislature should establish a targeted incentive for behind-the-meter projects in SCE territory. There are many commercial customers within the Aliso Canyon Delivery Area who are considering solar and who would move faster to deploy with this type of incentive. Such an incentive could be tiered for private vs. public sector customers, as was the case with the California Solar Initiative. This incentive should be broadly applicable to projects within the affected area, and not be limited to just non-export projects nor preclude customers from taking service under SCE's Option R rate schedule.

2) **Approve funding for additional staff at the California Geological Survey and Division of State Architects**
   Public education buildings are an ideal location of solar generation. Currently both the Division of State Architects and the Geological Survey must review solar project designs for k-12 public schools and community colleges. The Geological Survey has historically been able to conduct its assessments in 15-30 days, but now can take up to three months due to staffing constraints. Likewise, the Division of State Architects is currently taking 3 to 6 months to approve solar system designs and could cut this time substantially if it was adequately staffed. There is an opportunity to fund such staff in the current budget as it is being finalized this spring.