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Comment Received From: Christopher Smith
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ADR Comments

Additional submitted attachment is included below.

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California Energy Commission
Docket No. 17-BTSD-01
Docket Unit, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

Re: Docket No. 17-BTSD-01 – Non-Residential Lighting Measures for 2019 Standards

As a contractor that builds a lot of PV solar projects, our company Paradigm Power and Planning, appreciates this opportunity to comment.

As part of the solar industry, we feel it is important to meet the state's goal of 50 percent RPS. To accomplish this, our energy code should advance the deployment and utilization of key grid management and balancing tools. One of those is automated demand response or ADR, which is specifically referenced in SB 350 (Article 17, section 400):

"(c) Where feasible, authorize procurement of resources to provide grid reliability services that minimize reliance on system power and fossil fuel resources and, where feasible, cost effective, and consistent with other state policy objectives, increase the use of large- and small-scale energy storage with a variety of technologies, targeted energy efficiency, demand response, including, but not limited to, automated demand response, eligible renewable energy resources, or other renewable and nonrenewable technologies with zero or lowest feasible emissions of greenhouse gases, criteria pollutants, and toxic air contaminants onsite to protect system reliability."

Widespread implementation of ADR is a crucial element in meeting California's near and long term renewable energy milestones because ADR capable devices allow the smart grid to communicate with and manage energy loads in facilities across the state. Depending on the standards that are chosen, ADR enabled grid management and balancing may be advanced or handicapped by the 2019 title 24 non-residential lighting measures.

In reviewing the questions for stakeholders set forth at the June 22nd CEC workshop, we have the following recommendations.

1. Our company views the second question as the most important and strongly supports a 5,000 square foot building size limit on Option 3. This is at the top of our list for a number of reasons:

    a. The 2016 code has no building size limit and very few ADR capable control devices are being installed in retrofitted spaces. This is a setback for the automated grid.

b. The 2019 CASE proposal for a straight 50% pathway with no building size limit would continue the current 2016 approach for an additional three years and further compound the obstacles to achieving effective grid automation.

c. It is important to keep in mind that while losing significant ADR installations for two three year code cycles (or six years) would be damaging, the losses would be even greater. Facilities that retrofit, and opt out of ADR capable controls, are unlikely to consider another round of energy efficiency measures – and ADR capable devices - for ten to fifteen years.

d. Setting the building size limit higher than 5,000 square feet would also severely limit ADR installations because half of California non-residential buildings are below the 5,000 square foot level.

e. The concept of raising the level to 10,000 square feet is misguided because it would provide an opt-out for about 70% of California buildings. We are in favor of reducing the threshold on new buildings to 5,000 square feet as well.

f. Finally, the 2016 current 50/35% approach, and the proposed 2019 straight 50% approach share the same serious weakness – a lack of credible verification. Contractors and property owners have an economic conflict of interest when determining how to respond to a code standard that allows them to opt-out of more expensive ADR capable controls. Without a pre installation inspection, there are bound to be misrepresentations which will reduce energy efficiency and set back the automated grid.

2. The one-for-one language should be included and clearly defined in the code. It is a term that is commonly used but can be the subject of misunderstanding and/or misapplication. Here again, progress on the automated grid would be set back if property owners and contractors do not receive a very clear statement of code requirements.

3. Our company supports reducing the Lighting Power Density (LPD) threshold to 80 percent (from 85 percent). In the current market, lighting designers may select numerous lighting products that allow for layouts as much as 30 or 40% below the LPD limits in the code. Progressing to an 80 percent standard would not create obstacles for builders or designers, and would advance energy savings substantially.

Thank you for your consideration.

Sincerely,

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