

**TOSDAL LAW FIRM**  
777 South Pacific Highway, Suite 215  
Solana Beach, CA 92075

Thomas L. Tosdal  
Ty Tosdal

Telephone: (858) 704-4711  
Facsimile: (888) 740-3859  
Email: ty@tosdallaw.com

Mr. John Bumgarner, Chair  
Sustainable Energy Advisory Board  
City of San Diego  
9601 Ridgehaven Court  
San Diego, CA 92123  
Mail Station 1102-A

**RE: SUPPORT FOR ROOFTOP SOLAR**

*June 10, 2015*

Dear Mr. Bumgarner,

As a resident of the City of San Diego and an attorney that specializes in renewable energy matters, I am writing to express my concern that not enough is being done to support rooftop solar. As is the case with many policy issues, an important part of this debate is whether the benefits outweigh the costs, and if they do, by how much.

To my knowledge, there are many benefits of rooftop solar, including greenhouse gas reductions and the avoided cost of purchasing power that is instead generated by homeowners and business owners. And, of course, there are costs, such as the cost of panels and installation. The thousands of property owners in California that have installed rooftop solar tell us that the benefits outweigh the costs, at least for a substantial part of the population.

I wrote to you previously about stories in the media that raised questions about whether the benefits of rooftop solar were being accurately represented by utilities in the State of Hawaii and elsewhere. After investigating this issue further, I have learned that negative statements are also being made by utility representatives here in San Diego about the benefits of rooftop solar. For example, San Diego Gas & Electric (“SDG&E”) executives have said that rooftop solar provides no benefits to the grid.

To support that claim, SDG&E has used a chart developed by the California Independent System Operator (“CAISO”), which predicts that load requirements will change dramatically with the proliferation of rooftop solar. This chart is referred to as the “duck curve” because of the graphical resemblance to the shape of a duck, and it can be found here:

[https://www.aiso.com/Documents/FlexibleResourcesHelpRenewables\\_FastFacts.pdf](https://www.aiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf)

Notably, CAISO does not make the same claims as SDG&E about the benefits of rooftop solar, and only points out in the document that changes in load as a result of rooftop solar will require changes in grid management and power plant capability.

The “duck curve” has been the subject of intense criticism from energy experts, including former Public Utilities Commissioner Mark Ferron, who resigned from office last year for health reasons. Ferron argues that when CAISO developed the duck curve, it ignored the positive aspects of rooftop solar and did not take into account time-of-use pricing, energy efficiency, and demand response, programs that the utilities are required to provide. Commissioner Ferron’s perspective can be found here:

<http://www.greentechmedia.com/articles/read/retired-cpuc-commissioner-takes-aim-at-caisos-duck-curve>

Regardless of whether the duck curve is an accurate projection, however, the question of whether the benefits of rooftop solar outweigh the costs, and if so by how much, is an important one that can be objectively answered. An independent and comprehensive benefit-cost study of rooftop solar in San Diego would answer the question, but I am not aware that any such study has been conducted. In the alternative, benefit-cost studies and related information from similar areas can be gathered to shed some light on this important question.

I understand that the Sustainable Energy Advisory Board (“SEAB”) will be discussing changes to Net Energy Metering (“NEM”) at its meeting tomorrow. While NEM is one important tool that can be used to support rooftop solar, I urge SEAB to consider the bigger picture. This may require that SEAB recommend that the city conduct an independent study, or collect information from other sources about the benefits and costs of rooftop solar. I am willing to volunteer my time to assist in this process, and recruit others to do the same. This question is too important to ignore.

Sincerely,



Ty Tosdal

Copy: Dave Weil, City of San Diego  
Donna Chralowicz, City of San Diego