

**DOCKETED**

<b>Docket Number:</b>	19-IEPR-06
<b>Project Title:</b>	Energy Efficiency and Building Decarbonization
<b>TN #:</b>	229760
<b>Document Title:</b>	Parans Solar Lighting AB Comments Use of Solar Day Lighting in 2019 CA Energy Efficiency Action Plan
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	Parans Solar Lighting AB
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	9/18/2019 6:44:46 AM
<b>Docketed Date:</b>	9/18/2019

*Comment Received From: Parans Solar Lighting AB*  
*Submitted On: 9/18/2019*  
*Docket Number: 19-IEPR-06*

**Use of Solar Day Lighting in 2019 CA Energy Efficiency Action Plan**

*Additional submitted attachment is included below.*



Möndal 17 September 2019

California Energy Commission  
Docket Office, MS-4  
RE: Docket Number: 19-IEPR-06  
1516 Ninth Street  
Sacramento, CA 95814-5512  
[docket@energy.ca.gov](mailto:docket@energy.ca.gov)

**RE: Comments on: 2019 California Energy Efficiency Action Plan- Draft Staff Report 8/20/2019**

Dear Commissioners:

On August 20, 2019 the California Energy Commission (CEC) released its Draft Staff Report: California Energy Efficiency Action Plan (report). This was followed by Joint Agency Workshop on August 27, 2019 on Energy Efficiency and Building Decarbonization. Parans representatives attended the workshop and reviewed the report and offer the following comments.

We applaud the report and its overall direction in implementing the three goals defined in the report. Our comments will focus on using natural, carbon free sunlight as interior lighting as means of contributing to achieving the goals and recommendations provided in the report.

Sunlight is THE carbon free lighting program. Since the beginning of time sunlight has fulfilled our lighting needs. It has only been the advent of large buildings that have caused the shift to reliance on artificial lighting. Until recently, the only way to provide carbon free lighting was with windows, skylights and/or "solar tubes".

At Parans, (<https://www.parans.com/>) we have harnessed sunlight and can deliver carbon free, full spectrum sunlight into interior spaces up to 100M (~100 yards) from our solar light collecting units that are usually mounted on the roof of a building. This means you can now have carbon free, full spectrum sunlight (filtered from harmful UV and IR radiation) available in buildings up to 30 stories in height. The Parans system is a net zero energy system. It relies on the sun for 100% of the light it provides. The light is delivered to interior rooms of buildings using high grade fiber optic cables (meaning the system can be used in existing buildings or new construction) to send sunlight to light fixtures that distribute the full spectrum, carbon free light in a room(s). Not only does this create carbon free, net zero energy lighting, but also brings all the positive health implications of exposure to natural light.

We believe that the Parans systems of providing carbon free, net zero energy, lighting to residential, retail, commercial and industrial buildings should be fully considered in the CEC report as it is finalized. Recognizing that commercially viable solar daylighting systems are available will play a critical role in achieving carbon free buildings. Based on our current reading of the draft report, we do not believe that fiber optic solar daylighting has been given the consideration it is due, including its contribution to achieving the state's goal of carbon free buildings and that such systems are commercially available and viable.



Specifically, we believe that the benefits of fiber optic solar daylighting should be fully considered in the following areas of the report:

Goal 1:

Double Energy Efficiency Saving by 2030

Recommendations: a, d, f, h, l, m, n, o, p, q (note: including health benefits of exposure to full spectrum (minus IR & UV) sunlight), r, s, t,

Goal 2:

Removing Energy Efficiency Barriers in Low-income & Disadvantaged Communities

Recommendations: a, b, c, d, e,

Goal 3:

Building Decarbonization

Recommendations: a, c (note: net zero solar daylighting would actually reduce demand), d, e, f, (note: fiber optic cables require minimum infrastructure and the mounting of the solar collector on the roof should be considered in roof design), h, k, l, m, n, o,

Parans believes that integrating the use of fiber optic solar daylighting systems in these recommendations will greatly assist the state's goal of reaching carbon free buildings earlier and more cost effectively.

We at Parans are committed to assisting the state of California reach its goals by providing carbon free solar daylighting systems in the state. We are happy to work with all state, regional and local entities as well as the building community to educate them on the Parans system as well as the energy and health benefits of solar daylighting. We believe all will benefit from understanding that the technology now exists to deliver sunlight much further into buildings, and even underground, than previously possible.

Again, we applaud the report and the direction it takes. We truly appreciate your consideration of our recommendations. We look forward to working with you as these plans and programs move forward.

Sincerely,

Anders Koritz  
CEO  
Parans Solar Lighting