

**DOCKETED**

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**on the 2019 Preliminary Draft Research Roadmap**

*Additional submitted attachment is included below.*



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**Subject: Comments on the 2019 Preliminary Draft Research Roadmap, Docket # 19-ERDD-01**

Hyperlight Energy is grateful for the opportunity to comment on the California Energy Commission's (CEC) 2019 Preliminary Draft Research Roadmap (Research Roadmap) webinar held on June 28, 2019. Our comments are as follows:

Section 3 — CSP

In general, commercializing CSP is difficult. Many CSP company's have gone out of business and/or stopped developing power generation projects entirely. Glasspoint and Hyperlight Energy are two notable exceptions. Both are pursuing process heat. Hyperlight Energy is not aware of ANY CSP power generation projects under development in California.

A large driver of the process heat market is the LCFS program, which has proven to be durable and robust – and within which solar PV is not a significant competitive threat.

For technologies developed in an R&D context to reach the market, there must be active project development in that market. Any R&D strategy that targets technologies that are not applicable to the LCFS CSP market are much less likely to reach commercial deployment.

Section 3.1

Mirror cleaning is applicable to both power generation and LCFS applications and has an increased chance of market deployment as opposed to a technology applicable only to power generation.

Section 3.2

High temperature thermal energy storage is not necessary for the LCFS market. Due to higher cost and risk, it would face obstacles in deployment in this market, even if it were technically feasible. It is not clear that this topic area is relevant for LCFS CSP. Higher temperature storage is generally prioritized for power generation applications. Technologies developed under this topic have less chance of commercial deployment as compared to technologies that are applicable to both power generation and LCFS.

Thank you again for the opportunity to provide comments on the Research Roadmap. Hyperlight Energy is grateful for the forward leaning R&D posture of the California Energy Commission.

Sincerely,

/s/ John D. H. King

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Co-Founder, CEO  
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