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LSA Comments on DOCKET NO 23-ERDD-01

Additional submitted attachment is included below.



December 22, 2023

TO: Transmitted via Email to doCKET@energy.ca.gov
FROM: Shannon Eddy, Executive Director, Large-Scale Solar Association, eddyconsulting@gmail.com
RE: **LSA Comments on DOCKET NO. 23-ERDD-01, Funding to Advance the Environmental Sustainability of the Clean Energy Transition (Enviro-SET)**

The Large-scale Solar Association (LSA) is a non-partisan association of solar and battery storage developers that advocates appropriate policies to enable market penetration of utility-scale solar technologies in California and the Western United States. LSA’s members are leaders in the utility-scale solar industry with deep experience in all disciplines necessary to site develop, engineer, construct, finance and operate utility scale solar and battery storage systems. LSA’s member companies are principally responsible for developing most of the operational and planned solar and storage capacity in California today.

LSA member companies are committed to siting and developing clean energy infrastructure that avoids, minimizes, and minimizes local environmental impacts. LSA appreciates the opportunity to comment on DOCKET NO. 23-ERDD-01, Funding to Advance the Environmental Sustainability of the Clean Energy Transition (Enviro-SET). As drafted, LSA has concerns about both the framing clarity of the solicitation under Group 1: “Automated mapping of solar footprints and mapping areas suitable for dual use purposes.” This letter serves to offer refinements to the proposed solicitation language to ensure that the research projects ultimately funded by the EPIC Investment Fund will benefit the public and ratepayers, and will not result in biased information that could unduly slow or increase the cost of the clean energy transition in the State of California.

Funding Solicitation Description	Discussion and Recommendations
Group 1. Automated mapping of solar footprints and mapping areas suitable for dual use purposes. To meet the renewable and zero-carbon goals set forth by Senate Bill (SB) 100 (De León, Chapter 312, Statutes of 2018) ¹ , by 2045, there is an anticipated rapid expansion of clean energy technologies requiring significant land use change.	It is important to note that the statutory expansion of clean energy technologies is not the only major land-use change that will occur in the State over the next 20 years. Another major driver of land use change is the Sustainable Groundwater Management Act (SGMA, 2014; AB 1739 (Dickinson), SB 1168 (Pavley), and SB 1319 (Pavley)), which requires groundwater sustainability agencies (GSA) to bring groundwater use into sustained yield status by 2040. Most GSAs are already beginning to curtail groundwater pumping, resulting in a large-scale conversion away from intensively irrigated agricultural lands. This conversion is anticipated to continue through 2040. An estimated 500,000 to 1 million acres of land are expected to be retired or permanently fallowed due to this transition.

	<p>RECOMMENDATION: It is critical that the solicitation is worded such that any projects funded under Group 1 evaluate land use changes of multiple concurrent policy mandates rather than falsely attributing them to a clean energy policy mandate alone.</p>
<p>The 2021 SB 100 Joint Agency Report recommends an analysis of the projected land and sea-use impacts of SB 100 scenarios and opportunities to reduce environmental impacts. Expanding automated mapping tools that track solar footprints would be valuable for monitoring land use change...</p>	<p>SB 100 (2018 DeLeon) as modified by SB 1020 (2022 Laird) requires the California electric system to be 90% clean by 2035 and 100% clean by 2045, requiring an estimated 500,000 to 1 million acres of land for utility-scale solar energy. The CEC’s 2023 Land Use Screens for Electric System Planning report¹ identifies that the lowest biodiversity and community impacts of the State’s clean energy transition will occur by transitioning primarily low-performing/water-constrained agricultural lands to solar energy. The CPUC and CAISO will use these land use screens in their electric system planning process to identify transmission system upgrades to accommodate the clean energy transition. Is unclear what “automated mapping” refers to, and, given that the agencies are already performing this geospatial impact analysis in connection with electric system planning, it is exceedingly unclear how funding “automated mapping” research will further meet the agencies’ mandates under SB 100.</p> <p>RECOMMENDATION: Given a lack of a clear expression of how the outcome of “automated mapping” will further serve the public and ratepayers, we recommend striking “automated mapping” from the solicitation.</p>
<p>...and the potential impacts of that change...</p>	<p>Cumulatively, this land-use transition from agriculture to solar is anticipated to significantly improve air quality in agricultural regions as hundreds of thousands of acres are converted from routine soil disturbance into stabilized soils underlying solar panels. In addition, this transition is anticipated to restore significant habitat for native species of the San Joaquin Valley that have been impacted by a dramatic transition away from native grasslands to agricultural landscapes over the last 100 years. While the California Environmental Quality Act (CEQA) already requires that lead agencies comprehensively evaluate and mitigate for the potentially negative local environmental impacts of all solar projects in the State, CEQA does not mandate the study of beneficial effects. The public tends to be well informed of the negative environmental impacts of solar by virtue of the CEQA process, and the public is well informed about the global beneficial impacts of solar as it relates to the climate crisis, but the public tends to be poorly informed about solar's local, regional, and state-wide benefits. It is critically important that the beneficial ecological and human health impacts of land use transitions to solar energy be studied.</p>

¹ <https://www.energy.ca.gov/publications/2022/land-use-screens-electric-system-planning-using-geographic-information-systems>

	<p>RECOMMENDATION: The solicitation should be reformulated to seek geospatial and other research on the local, regional, and state-wide benefits of the clean energy transition.</p>
<p>...while surveying for suitability of dual usage purposes (e.g., development of agrivoltaics to minimize loss of usable farmland).</p>	<p>There is a strong bias in how this statement is framed. It presupposes that development of dual-use solar is environmentally and socially optimal, and requests proposals that will identify suitable locations for dual use. However, there is a fundamentally unanswered question that ought to pre-empt any geospatial identification of site suitability, which is “under what circumstances can dual-use solar be environmentally and socially optimal?” Research that evaluates whether imposing dual-use requirements on the incredibly rapid clean energy transition that is required to meet RPS goals and GHG reduction policy mandates could slow down the transition and/or increase costs for ratepayers is an important area of inquiry. However, such valuable research would be effectively precluded by the research topic as written. In addition, the solicitation as written presupposes that “loss of usable farmland” would result in negative environmental and social impacts, where the opposite may be the case. Indeed, the enactment of SGMA was predicated on the need to change the prior unsustainable use of groundwater resources in the State. Finally, requiring dual uses that would expand the footprint of solar energy developments could have significant impacts on the total land needed for the energy transition, likely increasing local impacts to communities across the state. Yet, an understanding of this nuance is not facilitated by the framing of the research topic.</p> <p>In the experience of many solar developers and practitioners of demonstration-scale “agrivoltaics” dual-use practices, the technical barriers to implementation are reasonably well understood. Large-scale adoption of agrivoltaics practices has not yet occurred due, overwhelmingly, to existing legal, economic, and policy barriers. Even if commercial agrivoltaics operations could result in environmental and social benefits, which is not clear, such operations cannot occur without the removal of these barriers. Therefore, research on identifying these legal, economic, and policy barriers should be studied in lieu of more technical “agrivoltaics” research to offer any potential benefit to the public and ratepayers.</p> <p>RECOMMENDATIONS: We strongly recommend that EPIC funds be limited to the study of whether there is any potential environmental or social benefit to combining solar energy generation with agriculture (as compared to keeping the uses separate), and, if so, to identifying the legal, economic, and policy barriers to such dual use. We further recommend that solar dual-use research funded by the EPIC program focus primarily on low-cost and no-cost strategies to restore and improve native species habitat at large-scale solar facilities.</p>

To the extent that these comments help guide a reframing of Group 2, we also recommend that the Group 2 solicitation be reframed.