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November 10, 2022

California Energy Commission
Docket Unit, MS-4
715 P Street
Sacramento, CA 95814

Re: Docket No. 21-ESR-01—Comments on Lead Commissioner Workshop on Clean Energy Alternatives for Reliability

Dear Vice-Chair Gunda, Commissioners and Staff:

Between historic federal investments from the Inflation Reduction Act (IRA) and the portfolio of alternative resources to support reliability, the California Energy Commission (CEC) has a substantial opportunity to make the investments required to meet the state's climate goals, boost its economy, and help reduce costs for ratepayers. Arcadia appreciates the opportunity to comment on the Clean Energy Alternatives for Reliability workshop, held on October 28, 2022.

In September 2022, the California Legislature adopted Senate Bill 846, allowing for extension of the Diablo Canyon nuclear power plant while also providing that the CEC develop a Clean Energy Reliability Investment Plan (CERIP). One billion dollars was allocated to the CERIP, for investments that accelerate the deployment of clean energy resources, assist ratepayers, and increase energy reliability. By March 1, 2023, the CEC must submit the plan to the legislature, considering: the state's electricity supply and demand, the needs for grid reliability, advancement of policies towards 100 percent zero-carbon and renewable energy resources, and greenhouse gas (GHG) emissions reduction targets.

These comments expand on Arcadia's recommendations regarding community solar shared at the public workshop. Specifically, we recommend that community solar be considered by the CEC as a priority in the CERIP. Community solar projects can bolster reliability, lower energy costs, and address equity and environmental justice. Community solar can bring reliable, low-cost clean energy to disadvantaged communities typically excluded from traditional rooftop solar programs. All these attributes make this technology an appropriate investment for the CERIP, and this is consistent with the legislature's intent for this incredibly significant amount of funding. Furthermore, Federal investments from the Inflation Reduction Act (IRA) present new opportunities to leverage the CERIP funding to maximize benefits to California.

Benefits of community solar for California

Community solar has the potential to bring all of California's electric ratepayers into the clean energy economy by leveling the playing field between customers who can, and cannot, install solar on their home (or business). Typically ranging between 500kW and 10MW, community solar projects across the country have expanded access to emissions-

free electricity generation, with locally sited projects that connect into the distribution grid.¹ Community solar works by allowing households and businesses to “subscribe” to community solar projects, and in turn receive bill credits as electricity is generated and sold to the grid. The result of successful community solar programs is that customers save money while also supporting the development of these locally sited solar projects.

These projects can benefit families in any community – from the most densely populated cities to rural areas. For example, the New York City Housing Authority (NYCHA) completed a 1.8-megawatt community solar project in 2021 that consists of rooftop solar arrays on 27 public housing buildings, providing bill credit discounts for 470 households. On the other end of the spectrum, a [recently announced partnership](#) between Arcadia, Edelen Renewables, and the American Farmland Trust aims to create community solar projects on farmlands and other sites across the country.

Right now, the benefits of community solar for low-income families in California are limited by the lack of effective investment and a lack of well-designed programs. California has the opportunity to devote resources to extend the tremendous economic and environmental benefits that community solar can provide for all consumers, and especially low-income families. In order to accomplish this, the California Energy Commission should provide funding to create opportunities for low and moderate income (LMI) communities to participate in those programs, while also working with your sister agencies to reduce barriers to community solar development.

Benefits of community solar to low-and moderate income (LMI) households

One of the biggest challenges to energy equity is the fact that a large swath of the population cannot install solar panels on their rooftop. [Two-thirds of Americans](#) are still excluded from the clean energy economy because they rent their homes, lease their office space, live in large buildings, do not have roofs that are appropriate for solar panels, or cannot afford the upfront costs.² In California, 45% of residents do not own their own home and thereby cannot easily install solar. Many of the individuals without access to rooftop solar are LMI families.

Social disparities surrounding distributed energy resources (DER) persist among low-income and environmental justice communities. A recent study conducted by researchers at the University of California at Berkeley found that households in increasingly Black-identifying and disadvantaged census block groups have disproportionately less access to new solar photovoltaic capacity based on circuit hosting capacity, further reinforcing

¹ Abbott, S., Tyson, M., Popkin, M., & Farthing, A. “Community Solar+: How the Next Generation of Community Solar Can Unlock New Value Streams and Help Communities Pursue Holistic Decarbonization.” RMI. 2022. <https://rmi.org/insight/community-solar-plus/>

² Caperton, Richard. “Why community solar solves solar’s biggest problem.” Arcadia. February 10, 2020. <https://blog.arcadia.com/why-community-solar-solves-solar-s-biggest-problem/>

systemic inequities.³ Community solar programs are helping overcome this challenge in other states. However, California is not leading on these programs and has fallen behind.

It is common for low-income families to struggle to pay their energy bills. Households at or below 200 percent of the federal poverty level spend 3.5 times more of their income on energy costs, compared to the median household. Therefore, the cost savings associated with community solar can lessen the energy cost burden on low-income consumers.

With community solar developments comes workforce and economic development opportunities. Jobs are created through construction and maintenance, as well as community education. As more projects get slated for the region, job potential for LMI communities will increase.⁴

Overall, community solar projects allow for economic growth and development. Communities benefit from local investments, and households receive real savings in their pockets to spend in their communities.

Enhancing Reliability and Resilience with Community Solar

California's structural challenges with grid reliability present opportunities that community solar can address to meet both reliability and equity goals. Community solar can address both grid reliability and persistent systemic inequities to give everyone the opportunity to reap the financial and environmental benefits of solar resources. Community solar projects are smaller in size and can be sited closer to load on the distribution grid. Reliability benefits are further enhanced when community solar is combined with community energy storage. The combination of solar and storage can improve resilience by mitigating the impacts of grid disruptions and enabling the continuity of essential services. This is particularly important as weather-related power outages are becoming increasingly common across California.⁵

Economic development benefits of community solar

Community solar projects help diversify rural and local economies. Bringing in new solar developments allows for economic variation, as it brings in new income sources for installers. Each community solar project typically creates between 50 to 100 family-

³ Brockway, A.M., Conde, J. & Callaway, D. "Inequitable access to distributed energy resources due to grid infrastructure limits in California." *Nat Energy* 6, 892–903. 2021. <https://doi.org/10.1038/s41560-021-00887-6>
<https://www.nature.com/articles/s41560-021-00887-6>

⁴ Hausman, Nate. "How Community Solar Can Benefit Low- and Moderate-Income Customers." World Resources Institute. June 16, 2022. <https://www.wri.org/insights/community-solar-low-income-customers>.

⁵ "Surging Power Outages and Climate Change." Climate Central. 2022. <https://www.climatecentral.org/climate-matters/surging-weather-related-power-outages>

sustaining local jobs and thousands of jobs are produced across the totality of the program.⁶

Community solar projects also produce economic benefits for subscribers. Since customers can participate regardless of their housing type or economic status, more people can reap the benefits. On average, consumers save between 5 to 10 percent on their energy bills, and LMI communities can see even higher savings.⁷ At the end of the day, community solar projects can lead to tens of millions of dollars in customer bill savings nationwide.⁸

Rural communities, tribal communities or family farms can benefit from leasing their land to community solar projects, creating a reliable, steady stream of additional income. Land deemed unfit for farming activity, or unsuitable due to drought, can be repurposed to generate clean energy for surrounding areas.⁹

Community solar leads to increased property tax revenue for local jurisdictions throughout the state. Economic diversification and an influx of jobs also allow for a more stable state economy, making the region more appealing for people to move to or launch new businesses.¹⁰

Leveraging federal investments to maximize benefits

Community solar programs offer equitable access to solar for anyone who wants it. Now, new federal policies and incentives all point to significant benefits for low-income communities in the coming years, especially for states with community solar programs. These policies and incentives present opportunities for the CEC to maximize the benefits possible from the CERIP.

Last year, the U.S. Department of Energy announced the goal of having the equivalent of 5 million households take part in community solar by 2025 — growing participation by 700 percent in the next four years. The Inflation Reduction Act will help make that possible across the U.S. and in California through a 10-year extension of the investment tax credit (ITC) through 2032 for community and rooftop solar. Congress created a few new and expanded tax credits, which can make more projects become financially viable and reduce

⁶ “Community Solar 101,” Coalition for Community Solar Access. July 2022. <https://cnee.colostate.edu/wp-content/uploads/2022/08/Community-Solar-101-2022.pdf>

⁷ Ibid.

⁸ “Your Guide to Community Solar.” Arcadia. Accessed October 27, 2022. <https://www.arcadia.com/energy-101/resource/what-is-community-solar>.

⁹ “Farmers Powering Communities.” Farmers Powering Communities, October 3, 2022. <https://farmersp poweringcommunities.com/>.

¹⁰ “How Community Solar Benefits People, Local Economies & the Planet.” Community Solar Benefits People, Local Economy & the Planet | Perch Energy. Accessed October 27, 2022. <https://www.perchenergy.com/blog/environment/community-solar-benefits-people-economy-planet>.

costs to communities. In addition to extending the investment tax credit, the IRA also includes specific new incentives for smaller scale (less than 5 MW capacity) solar projects placed in LMI communities or that benefit low-income households.¹¹ Developers can receive up to a 50 percent tax credit if they can show that 50 percent of the project provides benefits to low-income individuals. This incentive is capped at 1.8 GW a year for ten years.

These federal funding provisions ultimately can allow for solar developers to expand access for low-income customers. Combining these federal funds with investments from the CERIP can enhance opportunities for solar projects to flourish throughout California.

Conclusion

Arcadia strongly recommends that the CEC invest in community solar to promote savings for LMI families, address energy disparities in disadvantaged communities, and support grid reliability and resiliency. Investments in community solar should be considered alongside other renewable energy solutions for grid reliability and long-term reliability planning, and to meet the state's goals for equity and environmental justice. All of CEC's investments can be enhanced by federal tax credits provided through the Inflation Reduction Act, creating a rare opportunity to synergize funding sources and get projects built as quickly as possible.

Sincerely,



Angela Navarro
Head of State Regulatory Affairs
Arcadia

¹¹ "The IRA's Transformative Tax Incentives for Solar Energy Projects and Manufacturing Operations." JD Supra. Accessed November 1, 2022. <https://www.jdsupra.com/legalnews/the-ira-s-transformative-tax-incentives-4082010/>.