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Additional submitted attachment is included below.

BEFORE THE CALIFORNIA ENERGY COMMISSION DIVISION OF SITING, TRANSMISSION, ENVIRONMENTAL PROTECTION

In the Matter of the CEC Draft Staff Paper on Parcelization Calculation for Long-Term Solar Resource Planning

Docket Number, 17-MISC-03

COMMENTS OF AES CLEAN ENERGY DEVELOPMENT, LLC (US) ON CALCULATING PARCELIZATION FOR ELECTRIC SYSTEM PLANNING

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Date: August 16, 2023

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I. INTRODUCTION

AES Clean Energy appreciates the opportunity to submit comments on the California Energy Commission draft paper "Calculating Parcelization for Electric System Planning" updated August 1st, 2023. AES Clean Energy is focused on accelerating the safe, reliable transition to clean energy solutions such as wind, solar, and energy storage in the U.S. Through its affiliates and subsidiaries, AES Clean Energy maintains an operating portfolio of over five gigawatts and a development pipeline of fifty-one gigawatts.

AES Clean Energy appreciates the analysis, intentionality, and effort that went into the draft paper on Calculating Parcelization for Electric System Planning. AES Clean Energy supports parcelization as a new metric of analysis for the land-use characteristics around a substation¹ to better prioritize substations that have feasible development characteristics from a land-use for renewable energy perspective. AES Clean Energy provides comments addressing developable

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¹Calculating Parcelization for Electric System Planning, California Energy Commission Draft, August 1, 2023.

areas that may be excluded by the methods identified in the Calculating Parcelization for Electric System Planning draft paper.

II. Energy Storage Development is More Feasible in Areas with Higher Parcelization

The 2021 Joint Agency SB 100 Report identifies that an unprecedented amount of new generation and energy storage capacity will be needed to supply clean, reliable power and achieve the SB 100 targets². AES Clean Energy recognizes that the CEC Calculating Parcelization for Electric System Planning draft paper subtitle, "An Overview of Geographic Information System Methods for Assessing the Average Number of Unique Parcels in an Area for Long-Term Solar Resource Planning," identifies solar as the main renewable energy source evaluated in this analysis. AES Clean Energy emphasizes that parcelization should be applied to energy storage electric system planning differently than how parcelization can be applied to solar electric system planning. Based on AES Clean Energy's portfolio of Battery Energy Storage Systems (BESS) and utility scale energy storage footprints in the DOE/EPRI 2013 Electricity Storage Handbook released July 2013³, utility scale energy storage projects have a much smaller land footprint with hundreds of MWhs fitting on ~10 acre parcels. By targeting substation areas with lower parcelization for electric system planning, areas that have higher parcelization and are viable for energy storage development could be deprioritized. Because stand-alone energy storage projects can be developed in areas with higher parcelization, AES Clean Energy recommends that the report to the CPUC must note that the parcelization metrics and guidelines identified in the CEC Parcelization paper are most relevant for utility scale solar projects.

²Calculating Parcelization for Electric System Planning, California Energy Commission Draft, August 1, 2023.

³ DOE/EPRI 2013 Electricity Storage Handbook in Collaboration with NRECA

[&]quot;DOE/EPRI 2013 Electricity Storage Handbook In Collaboration With NRECA". ESS, 2023, https://www.sandia.gov/ess/publications/doe-oe-resources/eshb/doe-epri-nreca. Accessed 16 Aug 2023.

III. Areas with High Parcelization and Low Urban Development

AES Clean Energy recommends that areas that have high parcelization and low urban development (as well as low likelihood for urban development) should be flagged as outliers with land that is more feasible for renewable energy development. For example, California City is the third largest city in the state geographically with mapped housing developments (high parcelization) but has actual low number of homes in the city⁴. Though developers will be required to put more effort into aggregating land for a renewable energy project, the land itself is away from urban development and has potential for successful renewable energy projects. AES Clean Energy recommends a form of satellite imagery validation of areas with high parcelization, and for the metrics section to highlight if the satellite imagery indicates the area has high parcelization with low urban density or development.

IV. CONCLUSION

AES Clean Energy applauds the California Energy Commission for factoring parcelization into report metrics provided to inform the modeling for the 2025 Joint Agency SB 100 Report, CPUC's Integrated Resource Planning (IRP), and CPUC busbar mapping process.

AES Clean Energy appreciates the opportunity to submit comments on the draft study and looks forward to discussions and a finalized draft of Calculating Parcelization for Electric System Planning.

⁴ California City

[&]quot;California City". California.Com, 2023, https://www.california.com/city/california-city. Accessed 16 Aug 2023.

Respectfully submitted,

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