

UNIVERSITY OF CALIFORNIA, LOS ANGELES

**COUPLING COMMUNITY KNOWLEDGE WITH BIG DATA TOOLS TO FACILITATE
EQUITABLE ENERGY TRANSITIONS**

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PROJECT GRANT \$638,878.00 Duration: 24 Months	<p style="text-align: center;">PRIORITY RESEARCH AREAS</p> <p><input checked="" type="checkbox"/> Accelerating and Supporting Transitions to Climate Start Communities</p>
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Building on work conducted under a California Energy Commission grant, data on building energy use, rooftop solar potential, grid capacity, and socio-demographics will be integrated to assess the potential for low income and disadvantaged communities in Los Angeles County to support climate smart transitions, including vehicle electrification, solar generation (rooftop or community-scale), storage, and appliance electrification. The proposed work will result in the development of a new set of interactive, web-based, analytical tools that can be used to help overcome specific challenges and identify specific opportunities facing individual DAC communities throughout Los Angeles County as they seek to enhance their participation in the ongoing transition towards a more sustainable energy future.

PARTNERS:	➤ Liberty Hill Foundation
RESEARCH ACTIVITIES	Using an integrated approach, project partners will organize engagement events with community-based organizations designed to solicit information about community specific attitudes, interests, and concerns about sustainable energy system transformations. Researchers will incorporate this information into the development of realistic forecasts for rates of penetration of different energy system transformations within DACs. An interactive web-based data platform will be developed, which overlays these forecasts with publicly available data on grid infrastructure capacity. This new tool will facilitate the design and implementation of future climate smart community development projects that are both technically feasible and quantifiably efficacious.
FACILITATES GREENHOUSE GAS EMISSIONS REDUCTIONS:	Preliminary findings from previous UCLA research indicate that grid curtailments on potential solar generation were likely to be higher in communities with higher CalEnviroScreen (CES) scores. By identifying and developing strategies to overcome these and other limitations, the GHG reductions associated with energy transformations in disadvantaged communities will be more fully realized.
BENEFITS DISADVANTAGED AND LOW INCOME COMMUNITIES:	Helps disadvantaged communities better understand and participate in forging their own energy futures. The data analysis process will be tightly coupled with community engagement through a multiphase process to understand how and where grid deficiencies may impact equitable and sustainable development in low-income and disadvantaged communities, and contribute to community-appropriate solutions. Through this work, disadvantaged communities will be empowered to engage fully and equally in the energy transition and develop creative and community-appropriate solutions.
ENGAGEMENT ACTIVITIES	Leverages community engagement methodologies and models developed through prior and concurrent work in LA County. These methods include mutual learning, shared decision-making, and participatory research models. Researchers will inform communities about technical issues, challenges and opportunities. Researchers will seek out community awareness of the issues as they affect local populations based on their own research, experience and expertise. Community feedback will inform the overall model, help develop research questions, identify core issues, select remediation strategies, formulate policies, finalize recommendations, and present findings to the public. This bottom-up process is further accommodated by prioritizing stipends to grassroots organizations.