Climate Change Research Program

ATTACHMENT 2: 2018 Grant Awards

Project Title	Description	Principal Investigator	Lead Institution
The Future of San Joaquin Valley Agriculture Under Climate Change and SGMA	Investigates environmental and socio-economic impacts of climate change on San Joaquin Valley agriculture and disadvantaged communities in the context of a changing regulatory environment and water supply reductions under the Sustainable Groundwater Management Act.	Michael McCullough	California Polytechnic University, San Luis Obispo
Innovative Low-GHG Residential Space Conditioning Technologies	Applies innovation to integrated system solutions for HVAC systems that targets residential space conditioning in low-income and disadvantaged communities. Establishes a blueprint to improve technology adoption and engagement mechanisms in low-income households, including payment and financing solutions and user behavior evaluation.	Sara Beaini	Electric Power Research Institute
CAL-THRIVES: A California Toolkit for Heat Resiliency In Vulnerable Environments	Addresses two research and deployment needs by evaluating how to increase the resiliency of the vulnerable in disadvantaged communities during heat waves, and by assisting the California's power sector to improve their rates of greenhouse gas (GHG) emissions reduction.	Max Wei	Lawrence Berkeley National Laboratory
Integrated land use planning to support climate resilient ecosystems and local communities: fire, water, and biodiversity	Examines how an integrated, ecosystem-based approach to planning for connected landscapes can support adaptation to climate change especially in relation to concerns over wildfire, water sustainability, and land conservation in ecosystems and local communities. Facilitates regionally based science-informed climate adaptation planning.	Rebecca Lewison	San Diego State University
Examining the Unintended Effects of Climate Change Mitigation: A New Tool to Predict Investment-Related Displacement	Estimates the relationship between displacement pressures and California's climate investments in order to create tools that state agencies can use to predict and mitigate the displacement impacts of future investments.	Karen Chapple	University of California, Berkeley
Increasing Data Accessibility and Climate Resilience Planning Support through Cal-Adapt	Leverage the Cal-Adapt web application tool by conducting needs assessments and outreach efforts to identify new datasets, and design and build new features and targeted tools for the application that more thoroughly addresses stakeholder needs beyond the energy sector and assists state agencies and others with developing actionable plans to adapt to changing conditions.	Maggi Kelly	University of California, Berkeley
Sea level rise, hazardous sites, and environmental justice in California	Examines the potential impacts of coastal flooding due to sea level rise (SLR) on disadvantaged communities in California, improves public knowledge about flood risks from SLR, and promotes more systematic consideration of hazardous sites and vulnerable populations	Rachel Morello-Frosch	University of California, Berkeley
Climate Smart Communities Transportation Consortium	Advances the State's knowledge of emissions effects in the transportation sector to disadvantaged communities by focusing on interrelated areas – innovative	Daniel Sperling	University of California, Davis

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	mobility, electrification, public transit, land use, active transportation, and goods movement—using equity and policy engagement lenses as crosscutting themes. Features pilots that center on regional case studies and statewide initiatives to demonstrate findings		
Innovation Center for Advancing Ecosystem Climate Solutions	Develops solutions to manage natural lands for climate change, addresses state goals for forest management and increased carbon sequestration in wildlands. Develops new knowledge through measurements and modeling, synthesizes resulting data to produce tools that enhance land-management planning and monitoring, and facilitates adaptive management. Verifies multi-sector benefits, advances implementation approaches, and communicates results through outreach efforts.	Michael Goulden	University of California, Irvine
Coupling community knowledge with big data tools to facilitate equitable energy transitions	Integrates various datasets to assess potential support for and acceleration of climate smart transitions within Los Angeles County's low-income and disadvantaged communities. Explores opportunities and translates findings into a new set of interactive, web-based, analytical tools to help users within specific community overcome challenges and identify transitioning opportunities.	Stephanie Pincetl	University of California, Los Angeles
Measuring the Impacts of Climate Change on Vulnerable Communities to Design and Target Protective Policies	Quantifies financial and health costs of understudied climate impacts - workplace morbidity/mortality, wages, unemployment, household energy expenditures, reproductive and prenatal risks, air pollution exposure, inadequate housing quality, and wildfire readiness. Forecasts potential costs due to increases in the number of extreme heat days and creates two accessible online mapping tools to inform state agencies, nonprofits, local governments, and community members.	George DeShazo	University of California, Los Angeles
Mobile Biochar Production for Methane Emission Reduction and Soil Amendment	Determines how to produce biochar in a closed cycle agricultural application to reduce GHG emissions. Considers how the production process can ameliorate agricultural waste disposal problems and improve the quality of life in farming and adjacent communities. Identifies means to gain acceptance of small-scale biochar production among farmers to use as a sustainable best practice for agriculture.	Gerardo Diaz	University of California, Merced
Working Lands Innovation Center—Catalyzing Negative Carbon Emissions	Scales-up application and demonstrations of soil amendment technologies. Quantifies net cumulative carbon emissions impacts across temporal and spatial scales in California’s upland agricultural systems to assess the potential for proposed agricultural practices to contribute to CA’s GHG reduction goals. Explores rock amendments, compost, and biochar technology through individual and in combination application.	Benjamin Houlton	University of California, Office of the President

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Integrating Land Use and Climate Change on California's Central Coast: Impacts and Adaptations for Local Communities	Explores current data gaps in local land-use activities and land-cover, and develops critical data, models, vulnerability analyses and scenarios needed to adapt to impending climate change and plan for alleviating community vulnerability to disadvantaged communities within the Salinas Valley.	Ruth Langridge	University of California, Santa Cruz