

# Fangxing Liu

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## **ENERGY AND ENVIRONMENTAL ECONOMICS, INC.**

San Francisco, CA

*Consultant*

Ms. Liu joined E3 in 2021 in the DER group. She is currently working on several electrification projects to help decommission natural gas systems and electrify buildings. She is also using E3's RESTORE model to assess storage revenues for investors and evaluate cost impacts of electrification. Ms. Liu is especially interested in the interface between different E3 practice areas such as the reliability contribution of DERs in resource planning or the interaction between market prices and storage value.

Ms. Liu previously worked as a utilities engineer at the Public Advocates Office of the California Public Utilities Commission, developing policy strategies for microgrids, DER integration and aggregation, utility deferral framework, and DER interconnection. Ms. Liu completed her master's degree in Civil and Environmental Engineering from UC Berkeley. During graduate school, she taught a class in optimization fundamentals and constructed an economic model to calculate social costs of carbon under various climate pathways. Her coursework in engineering, economics, urban planning, and social science inspired her to approach energy problems from multiple perspectives. She received her bachelor's degree in Civil and Environmental Engineering from the University of Illinois at Urbana-Champaign. Her undergraduate work and research experience focused on international development and developing civil infrastructure in rural and isolated communities.

## **CALIFORNIA PUBLIC UTILITIES COMMISSION**

San Francisco, CA

*Utilities Engineer, Public Advocates Office*

2020-2021

- Prepared comments and reports on commercializing microgrids and transitioning microgrids away from non-renewable energy resources
- Recommended processes to use distributed energy resources to defer electric distribution upgrades
- Researched technical issues and policy mechanisms to integrate and aggregate distributed energy resources

## **UNIVERSITY OF CALIFORNIA, BERKELEY**

Berkeley, CA

*Graduate Student Instructor*

January 2020 – May 2020

- Taught students to use quantitative optimization tools (e.g. linear programming and nonlinear programming) and MATLAB for planning and managing large-scale civil and environmental systems
- Led six-hour labs including planning for future Californian portfolio, scheduling a construction project, and resource allocation for water supply systems

## **ENVIRONMENTAL INTEGRITY PROJECT**

Washington, DC

*Research Intern*

June 2019 – August 2019

- Assisted development of AshTracker, a database recording ground water contamination near coal disposal areas from more than 250 coal-burning power plants in U.S.
- Investigated the Greenhouse Gas emissions and air pollution from oil, gas and petrochemical sectors in the U.S.
- Tracked changes in funding and staff of all state environmental agencies over the most recent decade in response to reduced federal oversight and enforcement

**UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN**

*Research Assistant*

Urbana, IL  
2018 - 2019

- Organized and analyzed measurements of the sources, energy use, and environmental impacts of traditional biomass stoves in rural China

Education

University of California, Berkeley  
*M.S., Civil and Environmental Engineering*

Berkeley, CA  
2020

University of Illinois at Urbana-Champaign  
*B.S., Civil and Environmental Engineering with minor in Business*

Urbana, IL  
2019

Citizenship

China