

ENERGY AND ENVIRONMENTAL ECONOMICS, INC.
Senior Consultant

San Francisco, CA

Mr. Jiang works in E3's distributed energy resources (DER) group, where he helps utilities, state agencies, and grid operators prepare for a high-renewables future. He joined E3 in 2017 upon receiving both a Master of Science in Engineering in Applied Mathematics and Statistics and a Master of Science in Environmental Economics and Policy from Johns Hopkins University. Prior to that, Mr. Jiang completed his Bachelor of Science in Chemistry from Peking University in China. Some of his notable recent E3 projects include:

- **Salt River Project (SRP) ELCC Study, 2021.** Managed the project with the tasks on developing an overview of ELCC presentation suitable for SRP executives and developing an ELCC study that calculates the ELCC values of existing and potential future SRP resources.
- **El Paso Energy (EPE) IRP Support, 2020-2021.** Technical lead in RECAP modeling, to develop a PRM study to determine updated target PRM level for IRP assumptions in resource selection.
- **NV Energy Resource Adequacy Study, 2020-2021.** Technical lead in conducting a detailed loss-of-load-probability study to calculate capacity credits for renewable and storage resources using an "effective load carrying capability" (ELCC) framework. The results of this analysis were used by NV Energy to ensure that the portfolios it developed in its IRP met prescribed standards for reliability.
- **Northwest Power Pool Corporation Resource Adequacy, 2019-2020.** Technical lead in researching the structure and key design choices for similar programs in other jurisdictions and assessed their relevance for the Pacific Northwest's unique, hydropower-based system, and developing a strawman program design to help potential participants understand the program's impact on their capacity needs.
- **Northwestern Energy Resource Adequacy and Transmission Evaluation, 2019-2020.** Technical lead in developing NWE RECAP model to study marginal ELCCs for wind, solar, batteries, pumped storage, and hybrid battery + wind/solar projects. Outputs would be used in capacity RFO bid evaluation. Trained NWE staff on RECAP modeling.
- **New York Power Authority (NYPA) Energy Diversity through Grid Edge (EDGE) Phase II Development Project, 2018.** Helped develop a powerful software application for NYPA's New York Energy Manager (NYEM) that can quickly evaluate the economics and value of a diverse set of DERs and other energy services for a large number of customers from several different perspectives.
- **Northwest RECAP Analysis, 2018 – Present.** Technical lead in analyzing the medium- and long-term reliability of the Pacific Northwest's electric grid as policy makers contemplate natural gas generation retirements and increased reliance on renewable energy, storage, and hydro.
- **Calpine Future of Gas Study, 2018.** Using E3's in-house RESOLVE and RECAP models, analyzed what resources in California are needed to maintain resource adequacy in a deeply decarbonized system that is heavily dependent upon renewables plus storage.
- **Integrated Demand Side Management (iDSM) Tool for Orange and Rockland Utilities, 2017 – 2018.** Developed an ORU-specific iDSM tool to calculate benefits and costs from utility, customer, and societal perspectives for different distributed energy resource (DER) measures.

- **System Reliability Impact Assessment of Once-Through-Cooling Units for Los Angeles Department of Water and Power (LADWP), 2017 – 2018.** Simulated LADWP’s historical hourly load profile dating back to 1950 based on neural network regression and analyzed system reliability and mitigation alternatives under high renewable penetration using E3’s RECAP model.

JOHNS HOPKINS UNIVERSITY

DEPARTMENT OF ENVIRONMENTAL HEALTH AND ENGINEERING

Baltimore, MD

Research Assistant, Advised by Prof. Benjamin Hobbs

September 2016 – June 2017

Mid-Atlantic Regional Integrated Sciences and Assessments (MARISA) Program

Cooperating with RAND Corporation

- Developed and applied tools to rank projected climate-driven risks by urgency level
- Identified the main decision-relevant uncertainties to guide design of decision-support tools and new climate research
- Wrote a report summarizing 34 specific decisions facing the Chesapeake Bay Watershed and screened out those with less interest via multi-criterion and multi-objectives analysis

DEPARTMENT OF APPLIED MATHEMATICS AND STATISTICS

Baltimore, MD

Teaching Assistant for Introduction to Probability Course

September 2016 – January 2017

- Lectured weekly conference sections for the class
- Graded homework and provided comments and suggestions to students during weekly office hours

WORLD BANK GROUP

Washington, D. C.

Research Analyst of Climate Resilient Power System Planning

Summer 2016

- Revised and developed the optimization model of Bangladesh’s power system through GAMS
- Generated an adaptive strategy for Bangladesh’s power system through Robust Decision-Making Analysis (RDM)
- Analyzed vulnerability of future states by PRIM algorithm through R and MATLAB
- Wrote a report on RDM analysis for use in Bangladesh power system planning

Education

Johns Hopkins University (JHU)

Baltimore, MD

M.S.E., Applied Mathematics and Statistics

May 2017

M.S., Environmental Economics and Policy

May 2017

Peking University

Beijing, China

B.S., Chemistry

July 2015

Citizenship

China