

# Melissa Rodas

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

New York, NY

*Consultant*

Ms. Rodas supports E3's analysis of reliability and flexible loads. She contributes loss of load probability (LOLP) modeling in E3's RECAP model and also supports transaction diligences focused on valuations of distributed energy resources and solar valuations. Prior to joining E3, Ms. Rodas served as a Solutions Engineer for Black and Veatch, a global engineering, procurement, consulting and construction company specializing in infrastructure development, where she developed clean energy solutions for myriad clients. She holds a Bachelor of Science in Environmental Engineering from the University of Southern California Viterbi School of Engineering.

**U.S. Department of Energy, Connected Communities Initiative (2023 - 2024).** Contributing analysis as part of E3's role in a DOE-sponsored project to aggregate flexible load from a comprehensive mix of distributed energy resources in residential dwellings. Creating ELCCs for flexible loads and examining data for a novel resource to develop an ELCC curve.

**Caribbean Utilities Company, Reliability Analysis (2024).** Using E3's RECAP model, examining current and future reliability, including applying special considerations for the particular reliability concerns of an island grid.

**Confidential Utility, Benefit-Cost Analysis for Electric Vehicle Programs (2023).** Completed calculations for analysis for both Make Ready and an Off Peak Charging programs. Based analysis on state-specific BCA framework.

**City of Pasadena, Integrated Resource Plan (IRP) Review (2023).** Supported E3's review of the City of Pasadena's IRP process. Provided quality control of IRP results to ensure alignment with resource planning best practices.

## **BLACK AND VEATCH**

*Solutions Engineer, Los Angeles*

Los Angeles, CA

June 2022 – June 2023

- Executed renewable energy feasibility studies and developed clean energy solutions to meet decarbonization and net-zero goals for 10+ clients including city governments, electric utilities, and corporate clients
- Created and presented Distributed Energy Resources (DERs) strategy for CPS Energy to improve grid resiliency and reliability in light of Winter Storm Uri; analyzed ERCOT market data from 2019-2022 to develop a financial model for a virtual power plant including behind-the-meter solar, batteries, EVs, natural gas generators, etc.
- Researched applicable federal and local renewable energy incentives and grants to guide project financial modeling

Houston, TX

*Civil Engineer, Houston*

July 2021 – May 2022

- Created ArcGIS and HEC-RAS models to analyze potential 100- and 500-year flood damages by analyzing Houston’s historical rain and terrain data; modeling was used to inform a stormwater tunnel feasibility study to prevent future damage in light of Hurricane Harvey
- Minimized supply chain delays by creating and implementing three design changes to maintain site functionality while limiting the amount of equipment needed for a \$100M water reuse project
- Analyzed 10 years of water quality data for two groundwater quality studies in Southern California; used Excel and At-Risk software to determine the likelihood of future permit violations to inform process design solutions

**REDEEMER COMMUNITY PARTNERSHIP**

Los Angeles, CA

*Outreach Coordinator*

January 2018 – May 2019

- Organized a public hearing with 50+ community stakeholders for this environmental justice non-profit in South LA by creating key messaging in both English and Spanish, providing translation services, and communicating with public officials; this hearing led to the closing of the Jefferson Drill Site, an urban oil drilling site in the heart of South Los Angeles
- Analyzed California Department of Oil and Gas Resources (DOGGR) oil well production data to inform the community of increased production and well stimulation and to notify the local government of idle wells
- Contributed to the Los Angeles Mayor’s 2020 sustainability plan by participating in four strategy meetings

**Education**

University of Southern California, Viterbi School of Engineering  
*B.S., Environmental Engineering*

Los Angeles, CA  
May 2021