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ENERGY AND ENVIRONMENTAL ECONOMICS, INC.

San Francisco, CA

Senior Consultant

Mr. Smiley supports E3's Asset Valuation group with expertise in renewable energy development, climate and clean energy policy, due diligence, load forecasting, emissions assessment, and energy market research and analysis. His E3 project experience has included evaluating offshore wind potential in California and conducting transactions due diligence for infrastructure assets. He also contributed to the development of load forecasts for the Western Interconnection, which are utilized in E3's off-the-shelf standard market price forecasts. He enjoys using Excel and python to perform effective data analysis and create clear, compelling visualizations. Most recently, he worked as an engineer at the California Air Resources Board helping fuel production companies participate in the Low Carbon Fuel Standard program. Prior to that, he worked on the RPS team at the California Public Utilities Commission, reviewing renewable energy contracts, ensuring RPS compliance for load serving entities, implementing California's Bioenergy Feed-In Tariff, and developing a greenhouse gas life cycle assessment tool for distributed bioenergy projects. Mr. Smiley holds an M.S. in Civil and Environmental Engineering from the University of California, Berkeley, a B.S. in Industrial and Systems Engineering from The Ohio State University, and a professional mechanical engineering license from the State of California.

Select E3 work includes:

- Evaluated offshore wind potential in California and assisted renewable energy clients with navigating the State's regulatory and procurement systems, facilitating successful project development.
- Conducted transaction due diligence for an infrastructure asset management firm by developing innovative in-house forecasts for Low Carbon Fuel Standard credit and Renewable Fuel Standard RIN prices, providing valuable insights for identifying strategic partners for alternative fuel production facilities.
- Contributed to the development of load forecasts for the Western Interconnection, which were utilized in off-the-shelf standard market price forecasts by E3.
- Provided comprehensive support to developers and utilities in the Colorado and Midwest regions, performing analysis of gas plants and evaluating emissions impacts of hybrid gas and storage projects to promote low carbon heating and electricity.
- Conducted market overviews and identified regions with supportive policies, incentives, and subsidies for renewable diesel and biodiesel in the US, empowering project developers with insights to make informed decisions.
- Assessed procurement and planning trends of load serving entities in the Western Interconnection by analyzing data from Integrated Resource Plans and interconnection queues, enabling better decision-making by stakeholders.

- Conducted extensive research on industry trends and policies affecting coal plant operations and retirements, providing valuable insights to inform strategic planning.
- Provided information on green tariff programs to energy project developers considering various energy off-taker arrangements with utilities in the Western United States, promoting the use of renewable energy and supporting sustainable development.
- Developed bottom-up Short-Run Marginal Cost forecasts for a solar developer in the Southeastern United States, enabling informed decision-making and facilitating project development.

CALIFORNIA AIR RESOURCES BOARD

Air Resources Engineer, Industrial Strategies Division

Sacramento, CA December 2020 – January 2022

- Performed greenhouse gas life cycle assessment of hydrogen, electricity, and renewable gas transportation fuels involving biomass, livestock manure, landfill organic waste, and carbon capture and sequestration.
- Researched industry publication, peer-reviewed literature and policy to inform responses to stakeholder questions
- Prepared presentations and briefing documents to inform decisions made affecting LCFS policy and regulations
- Worked closely with pathway applicants and project developers to navigate the LCFS program, resolve abstract issues related to LCFS policy, and ensure program compliance.

CALIFORNIA PUBLIC UTILITIES COMMISSION

Utilities Engineer, Energy Division

San Francisco, CA August 2018 – November 2020

- Researched and developed a project-specific, life cycle assessment model estimating the net criteria and greenhouse gas emissions of bioenergy projects relative to an alternate fate of eligible fuel resources. Time-based GHG impacts were modeled with IPCC equations estimating atmospheric persistence of CO₂, CH₄, and N₂O.
- Analyzed and visualized renewable energy market data to make inferences and determine statistically supported conclusions about load serving entities related to load variation, changing customer profiles, and project siting.
- Engaged with internal teams and external companies, state agencies, and non-governmental organizations to provide technical reviews and respond to inquiries relevant to renewables portfolio standards, grid interconnection, and electric vehicle support equipment.
- Worked with the Integrated Resource Planning team to support coordination efforts with RPS, as needed.
- Performed legislative and policy analysis to write commission resolutions and support energy division programming.

ROLLS-ROYCE NORTH AMERICA

Manufacturing Engineer

Indianapolis, IN March 2016 – July 2017

 Used data and statistical process controls to identify production issues and to propose improvements and experiments that reduce operational costs and quality risks in manufacturing processes.

- Applied robust, iterative design methods using VBA, computer aided design and parametric optimization software.
- Demonstrate ability to interface with multiple engineering functions, mechanics, and vendors to effectively develop and communicate technical assembly directions targeting improved engine performance.

Education

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

The Ohio State University B.S., Industrial Systems Engineering Berkeley, CA May 2018

Columbus, OH December 2015

Certifications and Trainings

- Professional Mechanical Engineer (License No.: 40539), California (Issued July 2021)
- Utility Rate School, National Association of Regulatory Utility Commissioners (NARUC) (Oct. 2020)
- Economics of Energy and the Environment, Energy Institute at Haas (Jan. 2020)
- Engineering and Business for Sustainability Certification, UC-Berkeley (May 2018)