

Michael Sontag

44 Montgomery Street, Suite 1500, San Francisco, CA 94104
michael@ethree.com

415.391.5100, ext. 355

ENERGY AND ENVIRONMENTAL ECONOMICS, INC.

San Francisco, CA

Senior Consultant

Mr. Sontag's work focuses on leveraging distributed energy resources to support and enhance a clean energy future. Since joining E3 in 2016, he has created intuitive, user-focused Excel tools to help public stakeholders and private developers make informed, data-driven decisions. He has helped numerous energy storage project developers model battery operations and forecast future revenues. Mr. Sontag has also worked on modeling grid impacts of flexible loads, and building decarbonization. Before joining E3, Mr. Sontag worked as an energy efficiency engineer and was also previously a product manager for a sustainable building materials company. He received his M.S. in Civil and Environmental Engineering (Atmosphere and Energy) from Stanford University, and a B.S. in Mechanical Engineering from the University of California, Berkeley. Select projects at E3 include:

- **Electric Grid Emissions Factors:** Developed a model to calculate GHG emissions based on historical and forecasted wholesale energy market prices. Used the calculated GHG emissions to create an Excel model for large, campus-based end-users to track baseline emissions and corresponding emissions reductions through assorted demand side measures.
- **Energy Storage Tool:** Modelled operational characteristics and market potential for energy storage projects, using E3's proprietary storage co-optimization tool. Clients have included storage technology companies and project developers looking to participate in the CAISO and NYISO markets, using a variety of energy storage technologies, including lithium ion batteries, compressed air energy storage, and vanadium flow batteries
- **Flexible Load Benefit Analysis:** Created an analysis to estimate the value to the grid of flexible water conveyance pumping in California's State Water Project through both an avoided cost framework and a resource procurement framework. Additionally, modelled potential bill savings for a behind the meter thermal energy storage system for a college campus.
- **Energy Efficiency Cost Effectiveness:** Performed market analysis in several geographical regions, and developed a cost effectiveness calculator for an energy efficiency technology company
- **California Integrated Resource Plan:** Provided data analysis and model development support to update demand side resources in E3's RESOLVE model for the California Integrated Resource Plan

NEWCOMB ANDERSON McCORMICK

San Francisco, CA

Energy Engineer

April 2012 – August 2014

- As project manager, created a strategic energy plan for a local regional parks district: Led a team that audited facilities at 27 parks, then created a strategic energy plan consisting of a proposed 12 energy efficiency measures with calculated energy savings of 800,000 kWh, and 10,000 th annually, as well as 2 MW of solar systems to offset remaining district-wide electrical load
- Developed custom energy calculations in Excel to model savings for a variety of lighting and mechanical projects, ranging from simple line-item estimates to data-based regression analysis and in-depth hourly usage models; used industry tools (eQUEST, etc) to support estimates when necessary, and performed measurement and verification to justify calculated savings
- Modeled solar system performance at over 100 sites for civic and educational institutions—mapped arrays on site plans, sized potential systems, modeled future output of planned solar systems, created 25-year financial analyses in Excel for each project, and helped present findings to clients

- Performed energy audits at over 40 sites—worked with clients to identify potential energy savings measures, advised on optimal project packages, and assisted with incentive applications

SERIOUS ENERGY QUIETROCK DIVISION

Product Manager

Sunnyvale, CA
January 2011 – October 2011

- Led the product management effort for the development and release of two new sustainable building products by creating product specifications, managing the project tracking
- Developed product definitions and translated them into more tangible product features based on market research, working with a cross-functional team consisting of engineering, operations, marketing, sales, and upper management
- Created an Excel model to analyze the cost, revenue, and profit margins for the division's entire product line—identified gaps in the current pricing structure and defined a new pricing strategy

Education

Stanford University
M.S. Civil Engineering, Atmosphere/Energy Program

Palo Alto, CA
March 2016

University of California, Berkeley
B.S. Mechanical Engineering

Berkeley, CA
June 2010

Licenses

Professional Engineer: Mechanical Engineering – HVAC/Refrigeration, California, 2014