

Michaela Levine

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

ENERGY AND ENVIRONMENTAL ECONOMICS, INC.

San Francisco, CA

Senior Consultant

Ms. Levine joined E3 in 2020 after completing her master's in civil and environmental engineering in the Atmosphere/Energy program at Stanford University. Her work focuses on analyzing opportunities to leverage distributed energy resources to reduce the environmental impacts of energy use and supporting clients' transportation electrification and renewables integration efforts. Prior to joining E3, Ms. Levine researched opportunities to use workplace electric vehicle charging for demand response at SLAC National Accelerator, and interned at a VGI startup, Weave Grid, where she developed simulations to assess the impacts of managed and unmanaged electric vehicle charging on distribution system assets. Ms. Levine also was a Sustainability Fellow at the Burlington Electric Department where she helped the utility identify opportunities to improve its integrated resource planning process. In addition to her master's degree, Ms. Levine received a B.A. in Geoscience with a Concentration in Environmental Studies from Williams College.

Select E3 projects include:

- **Evaluation of Portland General Electric's Transportation Electrification Pilot Programs (2020):** Assessed the grid impact of public EV charging stations and electrified public transit. Quantified the impact of peak period pricing on shifting charging load and monthly subscription pricing structures on charging behavior. Examined differences in charging behavior between private EV drivers and TNC EV drivers.
- **Benefit-Cost Analysis of Transportation Electrification in the Xcel Energy Minnesota Service Territory (2020):** Used E3's EVGrid tool to assess the cost and benefits of proposed EV programs in Xcel Energy's Relief & Recovery filing, which included personal LDV rebates, public DCFC charging network expansion, and transit bus rebates.
- **Open Vehicle-Grid Integration Platform (2020-2021):** Contributed to a team conducting initial research and analysis of vehicle grid integration's (VGI) market opportunities and potential business models.
- **New York City Local Law 97 Action Plan (2020-2021):** Contributed to the development of a model to assess the cost and carbon impact of strategies for New York City government agencies to achieve deep decarbonization in compliance with LL97.
- **Forecasting 2045 Loads and Resources for San Diego Gas & Electric Transmission Planning (2021):** Developed a 2045 hourly load forecast for SDG&E's service territory under a high electrification scenario using E3's RESHAPE model in addition to other public data sources.

Weave Grid

San Francisco, CA

Systems Engineering Intern

2019 - 2020

- Simulated the impact of unmanaged electric vehicle charging on distribution system assets and the ability of Weave Grid's products to minimize overloading of those assets.

- Implemented a transformer degradation model to evaluate accelerated aging caused by unmanaged and managed electric vehicle charging and conducted Monte Carlo simulations to evaluate the range of expected transformer degradation under various electric vehicle adoption conditions.

Alphataraxia, LP

Quantitative Analyst Intern

Los Angeles, CA

Summer 2019

- Developed data scrapers using Python and PHP to collect, process, and ingest long-term transmission planning data and transmission outage data.
- Analyzed transmission system planning data for project completion timeliness.
- Developed transmission outage forecasts based on historical patterns.
- Developed internal data dashboards to aid trading decisions.

SLAC National Accelerator

Research Assistant

Menlo Park, CA

2019

- Developed methodologies and associated analytics to quantify the benefits of managing electric vehicle charging through an optimal control algorithm.
- Assessed the financial benefit of workplace electric vehicle charging's participation in demand response programs.

Burlington Electric Department

Sustainability Fellow

Burlington, VT

Summer 2018

- Researched best practices in integrated resource planning and wrote a report recommending changes to Burlington Electric Department's IRP process in response to requests from regulators, emerging technologies, climate uncertainty, and the City of Burlington's net-zero energy vision.
- Conducted a commercial demand response potential assessment for Burlington Electric Department's territory.

Industrial Economics, Inc.

Research Analyst

Cambridge, MA

2016 - 2018

- Provided technical assistance with geospatial analyses, literature reviews, data mining efforts, and injury allocation assessments for several Natural Resource Damage Assessment cases.
- Managed and produced administrative records for both the public and for litigation.
- Assisted with the development of a long-term web-based data management system providing quality assurance testing and requirements definition.
- Conducted comparative market research on eco-labelled products.
- Developed a survey to study the commuting habits and preferences of Massachusetts residents.

Sierra Club

Beyond Coal Campaign Intern

Washington D.C.

Summer 2015

- Projected renewable energy deployment rates in the northeast and associated impacts on achievable carbon caps for the Regional Greenhouse Gas Initiative (RGGI).
- Assisted with grassroots outreach efforts.

Education

Stanford University
M.S., Civil and Environmental Engineering (Atmosphere/Energy)

Stanford, CA
2020

Williams College
B.A., Geoscience with a Concentration in Environmental Studies

Williamstown, MA
2016

Citizenship

United States