

ENERGY AND ENVIRONMENTAL ECONOMICS, INC.
Managing Consultant

San Francisco, CA

Mr. Loken focuses on economy-wide decarbonization pathways analysis. His recent E3 projects include national net-zero studies for World Resources Institute and the United States Climate Alliance, in addition to state level net-zero analyses for New York, Colorado, and New Mexico. Within E3, Rawley is a key expert in working with our economy-wide PATHWAYS model, the associated Biofuels Module and is very familiar working with available datasets on industrial energy use and emissions. He joined E3 after earning an M.S. in energy systems management from the University of San Francisco, where his master's project involved developing an integrated resource plan (IRP) for a Colorado utility that examined the future electricity system under a range of policy scenarios. Prior to his graduate program, Mr. Loken worked as a GIS analyst for an LED street lighting firm and the City of Santa Clara. In addition to his M.S., Mr. Loken earned a B.S. in Environmental Science from Santa Clara University.

Select E3 projects include:

- **GHG Pollution Reduction Roadmap, Colorado Energy Office (2019-2020).** Mr. Loken led the decarbonization pathways modeling for the state of Colorado to evaluate the economy-wide emissions impact of recently passed state policies and understand the actions required to achieve emissions reductions in line with the state's long-term GHG targets.
- **New Mexico GHG Emissions Inventory and Forecast, Center for a New Energy Economy (2020).** Mr. Loken led development of an updated GHG emissions inventory for New Mexico that improved upon previous iterations by including a highly-detailed accounting of both fuel combustion and fugitive emissions from the oil and gas sector. He also led development of decarbonization scenarios that examined measures required to achieve the state's long-term GHG targets and the impact of fugitive emissions policies in the oil and gas sector.
- **Achieving Carbon Neutrality in California, California Air Resources Board (2020).** Mr. Loken supported E3's analysis of pathways to achieving carbon neutrality in California by 2045 and built a tool that allows users to compare the abatement cost of various mitigation measures.
- **Getting to Net-Zero: U.S. Report, University of California Berkeley California-China Climate Institute (2021).** Mr. Loken led a review of deep decarbonization literature for the United States and individual states to identify common mitigation measures that should be near-term priorities for achieving carbon neutrality in the United States.
- **Building Blocks for a Low-Carbon Economy, World Resources Institute (2021).** Mr. Loken led development of economy-wide pathways scenarios for the United States that evaluated the impact of specific policies like tax credits for existing and new low-carbon technologies, performance standards and technology mandates, and the level of transformation required by sector to achieve the Biden administration's GHG targets.

- **Decarbonization Pathways Analysis, United States Climate Alliance (2021).** Mr. Loken led development of economy-wide pathways scenarios for member states of the United States Climate Alliance to understand the impact on national emissions of these states pursuing a suite of decarbonization policies.
- **New York Integration Analysis for Climate Action Council Draft Scoping Plan, NYSERDA (2021-ongoing).** Mr. Loken is currently supporting the pathways analysis work to inform the Climate Action Council’s scoping plan. This includes a detailed analysis of buildings, transportation, industry, electricity generation, non-combustion, low-carbon fuels, and negative emissions using E3’s suite of modeling tools and incorporating parallel modeling efforts at NYSERDA.

UNIVERSITY OF SAN FRANCISCO

Research Associate

San Francisco, CA
November 2018 – May 2019

- Researched historical technology deployments and economic transformations occurring at quantifiable rates similar to those necessary for transition to a low-carbon United States energy system
- Evaluated the role of federal government policy intervention in driving rapid technological and economic changes in the energy sector
- Analyzed large datasets to gain insights into relevant trends, designed figures and tables, and prepared research briefs and presentations

TANKO STREETLIGHTING, INC.

Data Analyst

Project Design Manager

Project Associate

San Francisco, CA
January 2018 – October 2018
November 2016 – January 2018
February 2016 – November 2016

- Translated both field and utility data into a variety of high-quality, user-driven map products, including client-facing reports and maps to guide field staff
- Performed data reconciliation, spatial analysis, and geoprocessing of large datasets; reviewed and processed field data for accuracy, quality and completeness
- Managed large, dynamic GIS datasets in ArcMap to drive accurate, streamlined project implementation
- Performed quantitative analyses on electricity and energy cost savings for municipalities and make recommendations to clients based on the results

CITY OF SANTA CLARA

GIS Intern

Santa Clara, CA
June 2015 – October 2015

- Contributed to a large-scale project to identify and map every utility easement in the city of Santa Clara in ArcGIS using easement documents, parcels maps, land surveys, and land deeds
- Assisted GIS staff with field data collection, data entry, and quality assurance of utility easement records

SANTA CLARA UNIVERSITY

Research Assistant

Santa Clara, CA
September 2014 – June 2015

- Studied the distribution of particulate matter pollution from highways in Santa Clara County and its effects on vulnerable populations, most notably schoolchildren

Education

University of San Francisco
M.S., Energy Systems Management

San Francisco, CA
2019

Santa Clara University
B.S., Environmental Science (Cum Laude)

Santa Clara, CA
2015

Citizenship

United States