

# Kevin D. Steinberger

61 Broadway, 20th Floor, Suite 2010, New York, NY 10006

[kevin@ethree.com](mailto:kevin@ethree.com)

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

New York, NY

*Director*

Mr. Steinberger is a Director in E3's Integrated System Planning practice and works out of our New York City office. He supports utilities and state agencies in planning for a low-carbon grid and analyzes the role of renewables, storage, transmission, and potential emerging technologies to achieve key policy objectives. Mr. Steinberger also works closely with E3's Climate Pathways and Electrification group, evaluating the impacts of electrification of buildings, transportation, and industry on the electricity system, and he has worked extensively with clients and stakeholders across the Northeast energy landscape. Mr. Steinberger's recent E3 projects include analyzing the feasibility, timing, and costs associated with meeting New York's electric sector targets to inform the Climate Act Scoping Plan; leading an assessment of an interregional transmission opportunity between New York and New England; and examining opportunities for battery storage to partially or fully replace the contributions of peaking power plants in New York City.

With over ten years of experience in the energy sector, Mr. Steinberger brings extensive experience analyzing the economic and environmental impacts of federal and state energy policies, and he has managed power sector modeling efforts as well as the development of energy policy planning tools. He earned an M.S. in Mechanical Engineering from Stanford University and a B.S. in Mechanical Engineering from Princeton University.

Select projects at E3 include:

- **Interregional Transmission Project Funding Application, National Grid, 2022-2024.** Mr. Steinberger led an E3 team that analyzed the potential benefits of an interregional transmission project between New York and New England on behalf of National Grid, the transmission owner who would perform the proposed line upgrades. E3's analysis was performed in collaboration with Hitachi Energy and involved nodal production cost modeling in GridView to examine the impacts of the upgrades over a range of future conditions. The study found that the project, referred to as the "Clean Resilience Link", would provide over \$1 billion in benefits (NPV) over its lifetime that would well exceed the costs of the upgrades.
- **Impacts of Data Center Load Growth in Virginia, Virginia Joint Legislative Audit and Research Commission (JLARC), 2024-Ongoing.** Mr. Steinberger is leading E3's study of the impacts of data center load growth in Virginia, focused on the impacts of data center load growth on electric system infrastructure requirements as well as potential cost allocation questions for new loads. The study will leverage E3's reliability model, RECAP, and capacity expansion model, RESOLVE, to perform a detailed examination of the impacts of new loads in Virginia and across the PJM footprint.
- **Impacts of Climate Change on the New York Energy System, New York State Energy Research and Development Authority (NYSERDA), 2022-2024.** Mr. Steinberger led the development of a study that contained a detailed analysis of New York State's energy system under three possible

climate futures and two distinct infrastructure and policy pathways, leveraging E3's full toolkit including economy-wide load projections, load shaping of electrified heating and cooling, resource adequacy modeling, and capacity expansion modeling. E3 found that climate change will have divergent impacts on the energy system, increasing demand for cooling in the summers while decreasing demand for heating in the winters.

- **New York City Long-Term Energy Plan, Mayor's Office of Climate and Environmental Justice (NYC MOCEJ), 2022-2024.** Mr. Steinberger led the energy storage section of PowerUp NYC, the first long-term energy plan for New York City. In collaboration with community leaders, energy experts, local energy system representatives, and NYC residents, E3 led an inclusive, year-long study to identify the policies and programs needed to achieve the City's decarbonization goals in the long-term, while providing specific recommendations for actions to be taken during the current administration.
- **New York Scoping Plan Integration Analysis, NYSERDA, 2021-2022.** Mr. Steinberger led E3's analysis of the electric sector impacts of New York's landmark climate law, the Climate Leadership and Community Protection Act. In 2021, NYSERDA published the Integration Analysis as a technical appendix to the State's Draft Scoping Plan, which contained a detailed exploration of achievement of a zero-emissions electric sector by 2040. Mr. Steinberger led a team leveraged E3's in-house capacity expansion model, RESOLVE, to model numerous scenarios and sensitivities that explored the role of end-use flexibility, emerging technologies such as hydrogen and long-duration storage, and other resources to help achieve New York's decarbonization goals.
- **Small Clean Power Plant Adaptation Strategy, New York Power Authority (NYPA), 2021-2022.** Mr. Steinberger led a project for NYPA that examined opportunities to decarbonize their natural gas-fired power plants in New York City, with a focus on opportunities for battery storage to partially or fully replace the operations of NYPA's units. The analysis was performed in collaboration with GE Energy Consulting who performed nodal production cost modeling in GE-MAPS, and Mr. Steinberger managed the development of all inputs as well as post-processing and visualization of key outputs. Additionally, along with NYPA, Mr. Steinberger engaged directly with environmental justice stakeholders (the PEAK Coalition), and the project successfully resulted in NYPA issuing a request for proposals (RFP) to examine storage opportunities in more detail.
- **New York Energy Storage Roadmap, NYSERDA, 2021-2022.** Mr. Steinberger led E3's efforts to support NYSERDA and the Department of Public Service in the development of New York's Storage Roadmap. The Roadmap outlines a path to achieving Governor Hochul's target of deploying six gigawatts of battery storage and how this target supports New York's broader clean electricity goals. The Roadmap also includes a cutting-edge examination of the role of long-duration storage in achieving a zero-emissions electricity system in New York, with a detailed analysis the reliability contributions of storage of varying durations. Mr. Steinberger also served as a lead liaison with key stakeholders, including presenting E3's technical approach at the annual New York Storage conference.
- **Local Law 97 Implementation Action Plan, New York City Department of Citywide Administrative Services (NYC DCAS), 2020-2021.** Mr. Steinberger managed the development of the LL97 Implementation Action Plan, a detailed roadmap to achieve the required emissions reductions across New York City government, including in City buildings, transportation, and wastewater management. The Action Plan supported an Executive Order from Mayor de Blasio to invest over \$4 Billion in climate action across New York City government.
- **Deep Decarbonization Pathways Analysis, Confidential Midwest Utility, 2020.** Mr. Steinberger managed an economy-wide analysis of deep decarbonization in the Midwest, with a focus on

the implications for the electricity system under a strategy that relies on high electrification of the buildings and transportation sectors. This analysis included a detailed examination of the opportunities to decarbonize the electric sector as well as the reliability challenges associated with meeting increasingly stringent emissions limits, including an analysis of a fully decarbonized system.

- **Transmission Strategy Development in New York State, Confidential Transmission Developer, 2019-2020.** Mr. Steinberger worked with a transmission developer to identify new opportunities to enhance the deliverability of clean energy in New York State. As part of this work, Mr. Steinberger provided a detailed review of transmission modeling performed by the client in GridView, and assisted in the identification of priority needs.
- **Analysis of Resource Adequacy Procurement Options, Confidential New York Utility, 2019.** Mr. Steinberger supported a confidential New York utility in the New York Public Service Commission's Resource Adequacy proceeding. Mr. Steinberger helped draft a report summarizing resource adequacy procurement and market design issues across the United States, which informed the client's strategy and comment submission in the New York docket.
- **Testimony in Georgia Power 2019 IRP, Georgia Large-Scale Solar Association, 2019.** Mr. Steinberger managed an analysis of Georgia Power's system and developed testimony that identified the costs and benefits of increased solar procurement. The testimony recommended higher levels of solar procurement during Georgia Power's 2019 IRP cycle and also proposed changes to Georgia Power's Renewable Cost-Benefit framework.
- **Cost-Benefit Analysis of Energy Efficiency Targets, Confidential State Agency, 2018-2019.** Mr. Steinberger worked with a state agency to examine the costs and benefits of aggressive energy efficiency targets. This work included a detailed bill impact analysis of energy efficiency measures and an analysis of the rate impacts on non-participants.

#### **NATURAL RESOURCES DEFENSE COUNCIL**

*Climate and Clean Air Program, Policy Analyst*

*Energy and Transportation Program, Schneider Fellow*

New York, NY and Washington, DC

August 2015 – May 2018

August 2014 – August 2015

- Analyzed the economic and environmental impacts of climate policies and researched key energy sector trends
- Presented policy recommendations to federal and state policymakers, including in Congress and at DOE, EPA, FERC, and state environmental agencies
- Commissioned and managed modeling and reports by industry-leading energy and economic analysis firms
- Directed the construction of state and city energy policy tools to inform deep decarbonization planning
- Developed 12 state-specific fact sheets on the Clean Power Plan, charting pathways to meet emissions targets
- Authored renewable energy section of NRDC's regulatory comments on the Clean Power Plan

#### **NEW CLIMATE ECONOMY**

*Innovation Chapter, Research Analyst*

Palo Alto, CA

March 2014 – June 2014

- Constructed experience curves to illustrate potential cost reductions of wind and solar in key markets
- Modeled and analyzed the global emissions impact of accelerated deployment of low-carbon

technologies

- Contributed research and writing on the global impacts of innovation on the electricity sector

**CLEAN COALITION**

*Hunter's Point Microgrid Project, Analyst*

Palo Alto, CA

November 2013 – March 2014

- Developed model to process local utility's feeder-level SCADA data and create load profiles
- Simulated high penetration of distributed generation to examine impacts on the power grid

**CASSIDY & ASSOCIATES**

*Energy and Environmental Policy Group, Intern*

Washington, DC

June 2013 – August 2013

- Monitored legislation and prepared policy briefs on issues ranging from energy efficiency to nuclear waste
- Profiled prospective clients and crafted strategies for new business development opportunities

**Education**

Stanford University

*M.S., Mechanical Engineering*

Palo Alto, CA

April 2014

*Stanford Graduate Fellowship, Independent Work: Investigation of Solid Carbon Fuel Cells*

Princeton University

*B.S., Mechanical Engineering*

Princeton, NJ

June 2012