

Eric Scheier

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Unlocking the value of sustainability for everyone through ecological design

Energy Modeling · Risk · Machine Learning · Research & Development · Macro-energy Systems

Industry

I am a clean energy quant working to democratize access to the energy transition

Research Scientist at Climate Change Artificial Intelligence

June 2023 - October 2023

Conducted a systematic review of critical data gaps in the climate change and machine learning space as part of a collaboration with Google DeepMind.

Senior Power Analyst at Silicon Valley Clean Energy

Apr 2023 - June 2023

Developed the modeling infrastructure to support procurement of 24x7 energy to consumers in Silicon Valley such as Google, Meta, and Amazon. Evaluated opportunities to procure and optimize renewable energy and storage systems participating in the CAISO market. Assessed the impact of new resource adequacy rules on the portfolio.

Quantitative Analyst at ENEL Energy & Commodity Management; Risk & Strategy

Jul 2021 - Apr 2022

Evaluated risk and strategy for solar, storage, and wind assets across North America power and environmental markets (ERCOT, PJM, CAISO, NEPOOL, NYISO, SPP, MISO, AESO). Aggregated prices from real-time to long-term forwards for daily mark-to-market and presented weekly weather and price forecasts to the executive team and traders.

Principal at Emergi Solar

Apr 2014 - Oct 2018

Collaborated with Distributed Energy Resource (DER) service providers to develop solutions such as a business model for off-grid solar deployment in Rwanda, a machine learning algorithm to estimate the operational prowess of solar installers in California, and a DER program for religious groups in North Carolina. Created a software-as-a-service portfolio management platform and an open-source algorithmic trading toolkit for digital assets in R (<https://github.com/ericscheier/systemtradeR>) and Python (<https://github.com/altfund/kivu>).

Portfolio Analyst at Sol Systems

May 2013 - Apr 2016

Forecasted supply, demand, and prices in US Solar Renewable Energy Credit (SREC) markets using capacity expansion models to support solar project development and operations.

Sustainability Reporting Intern at UNC Energy Services

Apr 2011 - Dec 2011

Assembled the campus's comprehensive sustainability report of green campus projects and AASHE Sustainable Campus Index compliance report.

Academia

I am a scientist dedicated to the objective assessment of energy systems

Current or Former Member of the following professional research networks:

Macro-Energy Systems, INFORMS, USAEE, BECC, APPAM

Innovator in the Solar Energy Innovators Program (SEIP)

Mar 2022 - Oct 2022

Evaluated the relationship between DER adoption and home energy burdens among United States distribution and generation utilities and Community Choice Aggregators (CCA) using agent-based models and behavioral research as part of an experimental research fellowship program of the US Department of Energy.

Master of Science in Ecology at the University of North Carolina - Chapel Hill (UNC)

Aug 2019 - May 2021

Worked with the Sustainable and Resilient Energy Group as Noah Kittner's first graduate student advisee to propose a new energy poverty metric based on net energy analysis and prosumerism. Received sponsorship from University entrepreneurship programs to commercialize this work.

+ E. Scheier, N. Kittner. A measurement strategy to address disparities across household energy burdens. *Nature Communications* **13**, 288 (2022).

Teaching Assistant in the Environment, Ecology, and Energy Program (E3P) Jan 2020 - May 2021

Held office hours and facilitated assignments for undergraduate courses about the fundamentals of energy economics and sustainability.

Bachelor of Science in Environmental Science and Economics at UNC Jun 2010 - May 2014

Focused on energy and sustainability with minors in mathematics and entrepreneurship. Field research experience included surveying local businesses' willingness to pay for clean energy in Cambridge, England, and assessing the life cycle impacts of a Thai island microgrid.

+ Cameron Smith, John Burrows, Eric Scheier, Amberli Young, Jessica Smith, Tiffany Young, Shabbir H. Gheewala. Comparative Life Cycle Assessment of a Thai Island's diesel/PV/wind hybrid microgrid. *Renewable Energy* **80**, 85 (2015).

Service *I am a public servant with over a decade of hands-on experience in renewable energy public finance*

Chair of Emergi Foundation (501c3) *United States*

Oct 2018 - Present - Combine sustainability science, behavioral research, and quantitative finance best practices into a clean energy product that helps members go green, make money, and grow their communities using solar energy and other DERs.

Dec 2019 - Present - **Board Member of Advancing Research for Children's Environmental Health (501c3)** *Wake County, North Carolina*
Advise a growing public health not-for-profit on fundraising and program design.

Dec 2020 - Feb 2022 - **Member of Orange County Commission for the Environment** *Orange County, North Carolina*
Appointed adviser to the Board of County Commissioners on the deployment of \$500k/year climate tax and related matters.

May 2020 - May 2021: **Director of Sustainability and Transportation** *UNC Graduate and Professional Student Government*
Coordinated graduate student transportation programs and directed sustainable investment of student fees during unprecedented times.

Jul 2019: **Holder of Series 65 (Uniform Investment Adviser Law Exam)** *Financial Industry Regulatory Authority*
Qualified to provide general investment advice to clients, oversee their accounts, and provide advisory services to external parties.

Jan 2019: **Graduate of Smart Contract Developer Program** *ConsenSys Academy*
Implemented foundational smart contract concepts and best practices by creating and deploying an open-source dApp for project finance use cases.

Sep 2015 - Dec 2015: **Fellow of Clean Energy Leadership Institute (CELI)** *Washington, DC*
Trained on the fundamentals of key market principles and clean-energy leadership development with top clean-energy experts.

Aug 2010 - May 2014: **Member of Renewable Energy Special Projects Committee (RESPEC)** *UNC*
Managed a green grant pipeline and helped permanently renew the committee's funding through a local ballot initiative.