

# Zach Tzavelis

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

New York, NY

*Consultant*

Mr. Tzavelis joined E3 in 2021 supporting the Asset Valuation practice area. Prior to joining E3, Mr. Tzavelis was a battery storage analyst at PA Consulting where he advised clients on financial transactions involving standalone and paired storage assets. He also interned at NREL and the Energy Futures Initiative where he worked on projects ranging from extreme weather event identification to NYC decarbonization planning. Mr. Tzavelis holds an M.E. and a B.E. in Mechanical Engineering from Cooper Union.

## **PA CONSULTING GROUP**

New York, NY

*Battery Storage Analyst*

2020 – 2021

- Advised investors and developers on battery storage and renewable energy projects throughout the United States using a variety of advanced modeling tools.
- Lead the storage modeling team using market expertise and proprietary models (Python - Pyomo) to estimate margins for client assets.
- Continuously improved the team's modeling and analytic capabilities - including a set of scripts which saved more than \$100k/yr in labor opportunity cost.
- Prepared client facing documents including pro formas, reports, and presentations.
- Researched fundamental drivers of historical energy price volatility in several US markets using large data sets and analyzing models to project future price dynamics.

## **ENERGY FUTURES INITIATIVE (EFI)**

Washington, DC

*Research Intern*

Fall 2019

- Analyzed the feasibility of achieving New York City's 80x50 decarbonization goal (Worked under the leadership of former US Secretary of Energy, Dr. Ernest Moniz).
- Authored over twenty whitepapers on technical concepts informing the study's modeling approach and analysis. Created briefs to prepare EFI Principles for panels and speeches.

## **NATIONAL RENEWABLE ENERGY LABORATORY (NREL)**

Golden, CO

*Strategic Energy Analysis Center (SEAC), Electricity System Analyst*

Summer 2019

- Identified extreme weather events as part of the largest renewable energy integration study to date (NARIS) by analyzing terabytes of generation, load, and weather data.
- Coauthored the NREL publication "The Evolving Role of Extreme Weather Events in the U.S. Power System with High Variable Generation Penetrations" (Pending: 2022).

## **ENERGY METRICS**

New York, NY

*Engineering Intern*

2017 - 2018

- Leveraged IoT hardware and software to save energy, increase comfort, and scale facility management for commercial buildings by designing new processes and developing automation tools.
- Created an application for field installation teams that enabled efficient assessment of field conditions and saved approximately \$24,000 in costs.

## Education

Cooper Union

*M.E., Mechanical Engineering*

*B.E., Mechanical Engineering*

*Master's Thesis: Decarbonizing New York's Power Sector.*

New York, NY

2020

## Citizenship

United States

European Union