Angela Zeng, Associate

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PROFESSIONAL EXPERIENCE

Synapse Energy Economics, Cambridge, MA. *Associate*, August 2023 - Present.

- Conducts research and provides consulting on energy sector issues.
- Conducts benefit-cost analyses to evaluate energy efficiency and other distributed energy resource programs.
- Supports working groups in developing benefit-cost analysis frameworks.
- Assists with capacity expansion and production cost modeling using EnCompass.
- Supports the development of testimony on the economics of coal plant operations and on distributed energy resource plans.

Synapse Energy Economics and Climable, Cambridge, MA. *Energy Justice Intern*, May 2022 – Feb 2023.

- Evaluated quantitative and qualitative survey data to inform technical study on the potential of solar in Massachusetts.
- Analyzed U.S. Census tract data to inform environmental justice analysis.

Duke University Nicholas School of the Environment, Durham, NC. *Graduate Research Assistant*, September 2021 – April 2022.

- Analyzed the impact of drought on the methane emissions of coastal wetlands.
- Conducted statistical analyses using R (linear and generalized additive models) to determine relationships between methane flux, precipitation, groundwater table level, and temperature over multiple years.
- Ran random forest regressions in Python to determine importance of explanatory variables in predicting methane flux.

Cornell University Energy and Sustainability, Ithaca, NY. *Energy and Economic Analyst*, January 2021 – July 2021.

- Worked closely with the Associate Vice President of Energy and Sustainability to prepare a lifetime economic analysis of the lake source cooling facility at Cornell University that was published as the cover article in the International District Energy Association's District Energy Magazine in January 2022.
- Assessed 20 years' worth of data on electricity usage and costs and to predict the cost of the business-as-usual case, using conventional chillers.
- Compared energy costs, operating costs, capital expenditures, and debt service between lake source cooling and conventional chillers to determine savings. Results were used to

analyze the accuracy of the initial cost benefit analysis used to inform the decision to build the lake source cooling facility.

EDUCATION

Duke University, Durham, NC
Master of Environmental Management – Specialization in Environmental Economics, 2023

Cornell University, Ithaca, NY
Bachelor of Science in Environment and Sustainability with a concentration in Environmental Economics, 2021

PUBLICATIONS

Borden, E., C. Resor, M. Bandyk, A. Zeng, A. Glaser Schoff, T. Gyalmo, P. Knight, S. Shenstone-Harris. 2025. *Policy Interventions to Address Rising Electricity Costs in New Jersey*. Synapse Energy Economics for the Natural Resources Defense Council and Evergreen Collaborative.

Borden, E., S. Chavin, W. Dejeanlouis, C. Mattioda, A. Zeng, A. Glaser Schoff. 2025. Assessment of Storage Procurement Mechanisms and Cost-Effectiveness in Maine. Synapse Energy Economics for the Maine Governor's Energy Office.

Chavin, S., P. Knight, S. Shenstone-Harris, A. Zeng, A. Fuzaylov, J. Hittinger. 2025. *Tackling the PJM Electricity Cost Crisis: An analysis of the benefits of the PJM interconnection reform*. Synapse Energy Economics for Evergreen Collaborative.

Knight, P., S. Chavin, J. Hittinger, A. Zeng, C. Resor. 2025. *Modernizing Pennsylvania's Clean Energy Policies: An analysis of the proposed PRESS and PACER policies.* Synapse Energy Economics for Pennsylvania Department of Environmental Protection.

Takahashi, K., C. Lane, M. Whited, S. Schadler, T. Gyalmo, A. Zeng, A.S. Hopkins. *Charging Minnesota's Electric Vehicles; Strategies that Work for the Electric Grid and Consumers*. Synapse Energy Economics for Minnesota Department of Commerce, Division of Energy Resources.

Hopkins, A.S., A. Zeng. 2024. *An Analysis of Options for Washington's Gas Utilities.* Synapse Energy Economics for Climate Solutions.

Shenstone-Harris, S., A. Zeng, L. Metz, M. Whited. 2024. *On the Road to Fleet Electrification: A Framework for Estimating Distribution System Impacts of Medium- and Heavy-Duty Vehicle Electrification.* Synapse Energy Economics for Advanced Energy United.

A.S. Hopkins, A. Zeng. 2024. *A Timely and Managed Gas Utility Transition Lowers Costs and Risk*. 2024. Synapse Energy Economics for Climate Solutions.

Synapse Energy Economics, Sustainable Energy Advantage, North Side Energy, Resource Insight, Les Deman Consulting. 2024. *Avoided Energy Supply Components in New England: 2024 Report.* Synapse Energy Economics for AESC 2024 Study Group.

DNREC Division of Climate, Coastal and Energy, Synapse Energy Economics, Zooid Energy. 2023. Proposed Offshore Wind Procurement Strategy for Delaware. DNREC Division of Climate, Coastal and Energy, Synapse Energy Economics, and Zooid Energy for Delaware Department of Natural Resources and Environmental Control.

Knight, P., O. Griot, E. Carlson, J. Litynski, A. Zeng, J. Smith, S. Kwok and Climable.org (Stevenson Zepeda, J., S. Kelly). 2023. *Massachusetts Technical Potential of Solar: An Analysis of Solar Potential and Siting Suitability in the Commonwealth*. Synapse Energy Economics and Climable.org for Massachusetts Department of Energy Resources.

Lord, D., R. R. Bland, A. Zeng. *21 years on, Cornell's lake source cooling project has more than proven its worth.* 2022. District Energy Magazine.

SKILLS

Microsoft Office Suite, Excel (VBA), R, Stata, ArcGIS, Python

Resume updated June 2025