

## Sabine Chavin, Associate

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## PROFESSIONAL EXPERIENCE

**Synapse Energy Economics Inc.**, Cambridge, MA. *Associate*, July 2022 – Present

- Consults on energy-sector issues, including integrated resource planning, power system modeling, federal energy legislation, tracking utility performance, electrification policies, and energy storage.
- Co-developer of interactive website dashboards, including one to assess energy and emissions in the Northeast and one to track the performance of electric utilities in Puerto Rico.
- Assists in testimony development focused on power plant economics.
- Researches incorporation of federal legislation (including the *Inflation Reduction Act* and the *Infrastructure Investment and Jobs Act*) into power system modeling.

**Kleinman Center for Energy Policy**, University of Pennsylvania. *Student Fellow*, January – May 2022

- Attended energy and climate policy seminars on a range of topics including the geopolitics of rare earth materials, adaptive architectural design and geoengineering.
- Researched and authored a blog post on microgrid tariff regulations

**Neuroscience Lab**, University of Pennsylvania. *MindCORE Fellow in Balasubramanian Lab*, Summer 2021

- Designed and coded in Python a model of spatial navigation to better understand biological neural navigation processes
- Studied analytical techniques for interpreting our computational results

**Cryo-electron Tomography Lab**, University of Pennsylvania. *Research Assistant in Chang Lab*, Summer 2020

- Generated and analyzed tomograms (3D representations) of parasites from 2D electron microscope data
- Authored literature review on the lifecycle of *Plasmodium falciparum* (malaria parasite)
- Explored useful machine-learning approaches to classifying proteins for the group to use going forwards

## EDUCATION

**University of Pennsylvania**, Philadelphia, PA

Bachelor of Arts in Physics: Concentration in Computer Techniques, 2022

Master of Science in Physics, 2022

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## PUBLICATIONS

Knight, P., J. Frost, T. Fitch, E. Sinclair, J. Tabernero, O. Griot, B. Havumaki, J. Smith, L. Metz, S. Chavin. 2023. *TVA's Clean Energy Future: Charting a course to decarbonization in the Tennessee Valley*. Synapse Energy Economics for GridLab and Center for Biological Diversity.

Goldberg, D., S. Chavin, J. Tabernero, P.Knight. 2023. *Green Dash Northeast: state-level data on emissions and energy in the Northeast*. Synapse Energy Economics for Barr Foundation.

## SKILLS

Python, OCaml, MATLAB, Java, Microsoft Office Suite

*Resume updated March 2023*