

Paul Rhodes III, Associate

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PROFESSIONAL EXPERIENCE

Synapse Energy Economics, Inc., Cambridge, MA. *Associate*, April 2023 – Present; *Research Associate*, May 2022 – April 2023

- Performs quantitative and qualitative research and analysis on energy-sector issues including energy efficiency and building decarbonization, the future of natural gas, energy justice, electric vehicles, and rate design and utility regulation.
- Analyzes the emissions, peak load, and economic impacts of building and transportation electrification on the electric distribution grid.
- Conducts analysis with capacity expansion and production cost models to simulate future electric grid scenarios.
- Evaluates gas utility climate and energy transition plans for consistency with jurisdictional requirements and carbon reductions targets.
- Co-developed utility Strategic Transition Model to quickly assess the utility and ratepayer implications of large-scale strategic transition in the gas utility business model.
- Assists in expert testimony development and reports related to rate design and utility regulation.

kW Engineering, Salt Lake City, UT. *Engineer*, May 2021 – April 2022, *Consultant*, September 2019 – May 2021, *Intern*, May 2019 – September 2019

- Provided energy efficiency and peak shaving solutions to commercial customers across the Intermountain West within the PacifiCorp Demand-Side Management program.
- Assisted customers with meeting their electrification and decarbonization goals by analyzing feasibility of variable refrigerant flow heat pumps in buildings.
- Identified and modelled various energy efficiency measures relating to building heating, ventilation, air-conditioning, and refrigeration systems.
- Measured and verified energy efficiency measures to ensure proper installation and operation that would achieve projected energy and cost savings.

EDUCATION

Southern Utah University, Cedar City, UT: B.S. in Engineering (emphasis in Civil Engineering), 2021

- Senior Project: *Complete Streets of Cedar City*
- Engineer-in-Training Certification

SKILLS

- EnCompass power sector planning software
- Benefit-Cost Analysis
- Rate and Bill Impact Analysis
- Microsoft Office Suite
- SkySpark Analytics

PUBLICATIONS

Metz, L., M. Whited, P. Rhodes, E. Carlson. 2023. *Distribution System Investments to Enable Medium- and Heavy-Duty Vehicle Electrification*. Synapse Energy Economics for the Environmental Defense Fund.

Forthcoming. Takahashi, K., A. Hopkins, J. Smith, P. Rhodes. 2023. *Analysis of the Impacts of Electrification on Electric Distribution System Peak Loads in Maryland: Toward Net Zero Emissions from Maryland's Building and Transportation Sectors*. Synapse Energy Economics for Maryland Office of People's Counsel.

Napoleon, A., O. Griot, P. Rhodes, M. Whited. 2023. *Options for Providing Low Income Customer Support*. Synapse Energy Economics for New Mexico Office of the Attorney General.

Woolf, T., D. Goldberg, E. Borden, P. Rhodes. 2022. *Distributed Generation Successor Program in Maine*. Synapse Energy Economics for the Maine Governor's Energy Office and the Distributed Generation Stakeholder Group.

Takahashi, K., E. Sinclair, S. Chavin, E. Carlson, S. Sharaf, P. Rhodes, A. Hopkins. 2023. *Decarbonization Initiatives by Governments, Utilities, and Other Entities in the United States and Europe*. Synapse Energy Economics for the Central Research Institute of Electric Power Industry.

Kwok, S., P. Knight, J. Frost, S. Chavin, P. Rhodes. 2023. *Modeling the Benefits of Energy Storage in Maryland*. Synapse Energy Economics for American Clean Power Association.

Havumaki, B., A. Lawton, P. Rhodes, M. Whited. 2023. *Expert Report of Synapse Energy Economics, Inc. In Response to the Proposals of New Brunswick Power in Matter 529*. Synapse Energy Economics for New Brunswick Energy and Utilities Board.

Havumaki, B., E. Sinclair, P. Rhodes. 2022. *Alameda Solar*. Synapse Energy Economics for Alameda Solar I, LLC.

Taberner, J., S. Chavin, T. Fitch, D. Glick, S. Kwok, P. Rhodes. 2023. *A Clean Energy Portfolio Is Still the Best Option for TVA. Synapse Response to TVA's Environmental Impact Statement and Concentrics's Appendix Q*. Synapse Energy Economics for Sierra Club.

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