

## **Elsbeth McGarvey, Principal Associate**

---

Synapse Energy Economics | 485 Massachusetts Avenue, Suite 3 | Cambridge, MA 02139 | 617-453-7040  
emcgarvey@synapse-energy.com

### **PROFESSIONAL EXPERIENCE**

**Synapse Energy Economics**, Cambridge, MA. *Principal Associate*, April 2026 – Present.

- Expert in energy policy and regulation specializing in development and analysis in cost-benefit analysis, utility planning, and stakeholder engagement.

**MISO Energy**, Indianapolis, IN. *Planner III - Resource Adequacy*, Oct. 2024 – Mar. 2026; *Planner III - Strategic Assessments*, July 2024–Oct. 2024; *Planner II - Strategic Assessments*, Jun. 2022 – Jun. 2024.

- Modeled MISO’s annual loss-of-load expectation study using SERVIM to analyze grid reliability, resource adequacy, and production costs.
- Managed the implementation of indicative direct-loss-of-load accreditation results and resource adequacy modeling enhancements to ensure sufficient power generation and reserves.
- Led the Economic Policy Planning team’s adoption of PLEXOS, managing model development for seasonal expansion and dynamic accreditation.
- Directed the 2024 Regional Resource Assessment and 2023 survey initiatives while performing probabilistic analyses for the Resource Adequacy Subcommittee.

**ACES Power Marketing**, Indianapolis, IN; *Quantitative Analyst*, Oct. 2019–Jun. 2022.

- Quantified and reported energy risks for major ISO/RTO markets, including PJM, MISO, SPP, ERCOT, and CAISO.
- Updated and optimized stochastic portfolio models to enhance accuracy in risk analysis and client reporting.
- Communicated complex model results to clients through detailed technical reports and professional presentations and developed long-term analyses for resource valuation and what-if scenarios to guide strategic planning efforts.

**Walker Consultants**, Indianapolis, IN; *Analyst III*, May 2018–Oct. 2019; *Analyst II*, May 2017–May 2018.

- Developed financial valuation models for parking systems to facilitate acquisitions, sales, and debt service assessments.
- Created financial forecasts and research reports on the impacts of autonomous vehicles.

**Purdue University**, Lafayette, IN; *Graduate Research Assistant*; Aug. 2015 – May. 2017

- 
- Developed a probabilistic cost-benefit analysis of a \$150 million aviation biofuel plant to determine the financial feasibility of the project and develop a distribution of breakeven prices. Results were published in Biofpr.
  - Modeled future conventional jet fuel and diesel prices to account for risk in the market.

## **EDUCATION**

**Purdue University**, West Lafayette, IN

Master Science in Agricultural (Applied) Economics, 2017

**University of Chicago**, Chicago, IL

Bachelor of Arts in Political Science, 2010.

## **PUBLICATIONS**

McGarvey, E. and Tyner, W.E., "A stochastic techno-economic analysis of the catalytic hydrothermolysis aviation biofuel technology." *Biofuels, Bioprod. Bioref.*, 12: 474-484, 2018.

McGarvey, E., T. Jung, "Enhanced Resource Adequacy Modeling in PLEXOS." Presentation at Xcelerate Orlando, 2024.

*Resume updated April 2026*