

Nina Peluso, Research Associate

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PROFESSIONAL EXPERIENCE

Synapse Energy Economics Inc., Cambridge, MA. *Research Associate*, September 2017 – Present

- Serve as one of Synapse's primary energy systems modelers. Lead modeling efforts in EnCompass for near-term market simulation and long-term capacity expansion scenario analysis. Project experience in the ISO-NE, WECC, MISO, and national footprints.
- Run detailed scenario analyses for governmental and advocacy clients to analyze electric grid operations at hourly granularity. Measure scenario impacts on system costs, emissions rates, resource additions and retirements, and demand, among others.
- Provide technical assistance to EPA on the AVERT emissions impact tool, including work with the COBRA health impacts tool, detailed fuel-type analysis, and future year assumptions development. Maintain Excel tools and datasets.
- Assist New England energy efficiency program administrators with participation in regional capacity market.
- Advise EPA on questions surrounding strategic electrification. Develop metrics used to measure electrification across energy sectors and assess existing literature.
- Maintain detailed models of New England and other electricity systems to accurately estimate the value of energy efficiency technologies.
- Consult on best practices for integrated resource planning and policy development.

ICF, Fairfax, VA. *Research Assistant – Wholesale Power Markets*, August 2016 – August 2017

- Developed market assumptions and designed system modeling methodologies for developing nation Integrated Resource & Resiliency Plans.
- Assisted utility, governmental, and development institutions in long-term decision-making, planning, and modeling. Extensive work calibrating gas and electricity models.
- Tracked financial and operational data of power units for capacity expansion analysis.
- Utilized the Integrated Planning Model (IPM) to process complex market data.
- Developed detailed summaries of regional utility and ISO operations for internal use.

Social Science Data Analysis Network, Ann Arbor, MI. *Research Assistant*, September 2015 – May 2016

- Conducted intersectional research in complex systems and demography using NetLogo, ArcGIS, and U.S. Census data based on Thomas Schelling's segregation model.
- Wrote *Data in the News* blog posts highlighting data use in current event coverage.
- Worked with ArcGIS, Photoshop, and Excel to develop branding and content for a weekly data visualization series.

DTE Energy, Detroit, MI. *Policy, Strategy & Advocacy Intern*, May - August 2015

- Compiled 30+ policy briefs on electric/gas operations to outline internal policy stances.
- Researched policy developments to inform legislative advocacy and executive action.
- Prepared talking points, memos, and other support materials for company executives.
- Assisted with metrics restructuring and consultant efficacy analysis by applying continuous improvement strategies.

EDUCATION

University of Michigan | Gerald R. Ford School of Public Policy, Ann Arbor, MI

Bachelor of Arts in Public Policy – Energy Systems; Minors in Complex Systems and Science, Technology & Science, 2016

PUBLICATIONS

DeYoung, R., N. Peluso, J. Hall. 2018. *The Avoided Emissions and Generation Tool - Webinar*. Synapse Energy Economics.

Synapse Energy Economics (P. Knight, M. Chang, D. White, N. Peluso, F. Ackerman, J. Hall), Resource Insight, Les Deman Consulting, North Side Energy, Sustainable Energy Advantage. 2018. *Avoided Energy Supply Components in New England: 2018*. Prepared for Avoided-Energy-Supply-Component (AESC) Study Group.

Knight, P, A. Horowitz, S. Fields, N. Peluso. 2018. *Clean Energy for Los Angeles: An analysis of a pathway for 100 percent renewable energy in Los Angeles by 2030*. Prepared by Synapse Energy Economics for Food & Water Watch.

Horowitz, A., A. Allison, N. Peluso, B. Fagan, M. Chang, D. Hurley, P. Peterson. 2017. *Comments on the United States Department of Energy's Proposed Grid Resiliency Pricing Rules (FERC Docket RM18-1-000)*. Prepared by Synapse Energy Economics for Earthjustice.

Horowitz, A. I., N. Peluso. 2017. *Comments on Proposed Michigan Integrated Resource Planning Parameters*. Synapse Energy Economics memo to Michigan Public Service Commission Staff. Prepared for Sierra Club. October 5, 2017.

SKILLS

Energy Modeling: Skilled: EnCompass, Integrated Planning Model (IPM); Basic: PLEXOS

Data Management: Skilled: VBA, NetLogo, ArcGIS; Basic: Python, R, SPSS

Content Management/Manipulation: HTML, CSS, jQuery, Raiser's Edge, Adobe Creative, Photoshop

Resume dated October 2018