

Eric Borden, Principal Associate

Synapse Energy Economics | 485 Massachusetts Avenue, Suite 3 | Cambridge, MA 02139 | 617-453-7042
eborden@synapse-energy.com

PROFESSIONAL EXPERIENCE

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

- Sponsors expert testimony and performs analyses related to utility electric vehicle incentives and policy, wildfire mitigation strategies and costs, risk modeling, rate design, cost allocation, and revenue requirement issues in General Rate Cases and Multi-year Rate Plans.
- Conducts research and analysis related to the cost-effectiveness of distributed energy resources and Integrated Resource Plans.
- Examines utility performance incentives and provides expertise on ratemaking issues.

The Utility Reform Network (TURN), San Francisco, CA, *Energy Policy Expert*, February 2015 - May 2022

- Prepared testimony, conducted analyses, drafted comments, and represented TURN in various proceedings at the California Public Utilities Commission (CPUC) related to general rate cases, wildfire-related safety applications, electric vehicle charging infrastructure, utility procurement, rate design, and demand response.

4 Thought Energy LLC, Chicago, IL. *Senior Energy Analyst*, June 2013 – January 2015

- Created financial models to forecast profits of potential site installations
- Researched state and regional public policy frameworks governing CHP
- Conducted analyses over electricity and natural gas price trends
- Developed presentations and marketing materials for investor meetings

International Renewable Energy Agency (IRENA) Bonn, Germany. *Consultant*, February 2014 – October 2014

- Hired to write a report on worldwide electricity sector battery storage, including primary applications for renewable energy integration, market developments, trends, and case studies
- Conduct research, review literature, interview key industry players, develop case study material
- Travel to Bonn, company sites, and research facilities
- Written report will be sent to policymakers in 167 IRENA member countries

Alexander von Humboldt Foundation (hosted by DIW Berlin), Berlin, Germany. *German Chancellor Fellow*, July 2012 – November 2013

- Research Project: “Energy Storage Technology and the Large-Scale Integration of Renewable Energy”

-
- Investigated the role of energy storage in Germany for renewable integration through literature review, interviews with German energy experts, and analysis comparing public policy support in Germany and the U.S. for storage technologies
 - Invited to hold a presentation at the International Renewable Energy Storage Conference and Exhibition (IRES 2013)
 - Discussions with German businesses and governmental ministries; special visit to European Union and NATO headquarters in Brussels
 - Attended energy conferences and workshops in Berlin

The Kenrich Group, LLC, Chicago, IL. *Senior Consultant*, June 2008 – July 2009

- Consulted for multiple energy utilities in legal disputes with the Department of Energy (DOE)
- Performed detailed research and quantitative/qualitative analysis to analyze financial impact related to construction of coal-fired power plants, liquid natural gas facilities, and other types of construction
- Contributed to final reports and presentations submitted in arbitration, settlement, or court of law presenting KRG's expert opinion

Charles River Associates, Chicago, IL. *Associate - Intellectual Property*, July 2006 – May 2008

- Developed complex financial models including discounted cash flow, lost profit, and regression analyses to support expert reports within the context of intellectual property and financial litigation in multiple industries
- Created valuation models and supporting materials to value business entities
- Contributed to final reports and presentations submitted in arbitration, settlement, or court of law presenting CRA's expert opinion

EDUCATION

University of Texas, LBJ School of Public Affairs, Austin, Texas

Master of Public Affairs, specialization in Natural Resources and the Environment, 2012

Washington University, St. Louis, MO

B.S.B.A. Finance, Entrepreneurship, 2006

PUBLICATIONS

Havumaki, B., T. Nguyen, W. Dejeanlouis, A. Glaser Schoff, K. Schultz, E. Boden. 2024. *Community Solar Garden Study, 2024*. Synapse Energy Economics, Great Plains Institute for Sustainable Development, and National Association of State Energy Officials for Minnesota Department of Commerce.

Borden, E., B. Havumaki, T. Gyalmo. 2023. *Application of Discount Rates for Assessing Cost-effectiveness of Utility Risk Related Investments*. Synapse Energy Economics for The Utility Reform Network.

Borden, E., B. Havumaki, A. Lawton, M. Whited. 2023. *Establishing Income Based Fixed Charged in California*. Synapse Energy Economics for The Utility Reform Network and Natural Resources Defense Council.

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.

Battery Storage for Renewables: Market Status and Technology Outlook, International Renewable Energy Agency (IRENA), co-author with Ruud Kempener, 2015.

Germany's Energiewende, chapter 15 in *Global Sustainable Communities Design Handbook*, ed. Dr. Woodrow Clark, Elsevier Press, 2014.

Expert Views on the Role of Energy Storage for the German Energiewende, DIW Berlin and BMU "Stores" project, 2014.

Policy efforts for the development of storage technologies in the U.S. and Germany, DIW Discussion Paper, 2013.

Electric Vehicles and Public Charging Infrastructure: Impediments and Opportunities for Success in the United States, The University of Texas at Austin, 2012.

Clean Energy Technology and Public Policy, LBJ Journal of Public Affairs, editor and contributor, 2011.

TESTIMONY

Wisconsin Public Services Commission (Docket No. 6630-CG-140): Direct Testimony of Eric Borden regarding the Application of Wisconsin Electric Power Company for a Certificate of Authority under Wis. Stat. 196.49 and Wis. Admin. Code PSC 133.03 to Construct a New Liquefied Natural Gas Facility and Associated Natural Gas Pipelines in the City of Oak Creek, Milwaukee County, Wisconsin. On Behalf of Sierra Club. January 20, 2025.

California Public Utilities Commission (A.23-12-001): Direct Testimony of Eric Borden addressing Pacific Gas and Electric Company's 2023 Wildfire Mitigation and Catastrophic Event Expenditure Request regarding enhanced vegetation management. On behalf of The Utility Reform Network. November 1, 2024.

Nova Scotia Utility and Review Board (NSUARB M11877): Direct Testimony of Eric Borden in the Matter of an Application by Eastward Energy Incorporated for the Approval of a Schedule of a Customer Retention Program Recovery Rate. October 31, 2024.

Maine Public Utilities Commission (Docket No. 2024-00137): Direct Testimony of Eric Borden and Caroline Palmer regarding Maine Public Utilities Commission Follow-On Proceeding to Further Investigate Stranded Cost Rate Design. October 1, 2024.

Regulatory Commission of Alaska (U-23-048): Joint Testimony of Eric Borden and Paul Chernick in the matter of the Tariff Revisions Designated as TA-422-121 filed by Chugach Electric Association, Inc. On behalf of Renewable Energy Alaska Project (REAP) Regarding Rate Design. March 14, 2024.

Public Service Commission of South Carolina (Docket No. 2023-233-E): Direct Testimony of Eric Borden in the matter of the Application of Duke Energy Carolina's, LLC for increase in electric rates. On behalf of the South Carolina Department of Consumer Affairs. April 8, 2024.

California Public Utilities Commission (A.23-05-010): Direct Testimony of Eric Borden addressing Southern California Edison's Test Year 2025 General Rate Case Wildfire Grid Hardening Investments. On behalf of the Utility Reform Network. February 29, 2024.

Maryland Public Service Commission (Case No.9702) Direct Testimony of Eric Borden in the matter of the Application of Potomac Electric Power Company for an Electric Multi-Year Plan for the distribution of electric energy. On behalf of The Office of People's Counsel. December 15, 2023.

New Hampshire Public Utilities Commission (Docket DE 22-060): Direct Testimony of Eric Borden and Tim Woolf regarding the Consideration of changes to the current net metering tariff structure, including compensation of customer-generators. On behalf of The Office of the Consumer Advocate. December 6, 2023.

California Public Utility Commission (R.22-11-013): Direct Testimony of Eric Borden addressing 2024 Avoided Cost Calculator Proposed Updates. On behalf of the Natural Resources Defense Council. October 30, 2023.

Nova Scotia Utility and Review Board (Docket NSUARB M11267): Evidence of Eric Borden in review Nova Scotia Power's Time Varying Pricing Pilot report. On behalf of Counsel to Nova Scotia Utility and Review Board. September 26, 2023.

Public Service Commission of Wisconsin (Docket No.6680-UR-124): Direct Testimony of Eric Borden regarding the Application of Wisconsin Power and Light Company for Authority to Adjust Electric and Natural Gas Rates. On behalf of Clean Wisconsin. September 5, 2023.

Maryland Public Service Commission (Case No.9692): Direct Testimony of Eric Borden on the matter of the Application of Baltimore Gas and Electric Company for an Electric and Gas Multi-Year Plan. On behalf of The Office of People's Counsel. June 30, 2023.

Nova Scotia Utility and Review Board (NSUARB M10960): Direct Testimony of Eric Borden on the Matter of an Application by Eastward Energy Incorporated for Approval of a Schedule of Rates, Tolls and Charges Pursuant to Section 21 of the Gas Distribution Act. On behalf of the Counsel to Nova Scotian Utility and Review Board. April 12, 2023.

California Public Utilities Commission (A.22-05-016): Prepared Testimony Addressing San Diego Gas and Electric's Test Year 2024 Wildfire Mitigation Hardening Measures and Related Wildfire Risk Modeling Issues for The Utility Reform Network. March 27, 2023.

California Public Utilities Commission (A.22-05-015/A.22-05-016): Prepared Testimony of Eric Borden and Courtney Lane Addressing Quantitative Risk Analysis Issues in Sempra's 2024 Test Year General Rate Case for The Utility Reform Network. March 27, 2023.

Public Service Commission of South Carolina (Docket No.2022-254-E): Direct Testimony of Eric Borden regarding the Application of Duke Energy Progress, LLC for Authority to Adjust and Increase its Electric Rates and Charges. On behalf of South Carolina Department of Consumer Affairs. December 1, 2022.

State of Illinois, Illinois Commerce Commission (Docket 22-0432/22-0442): Direct Testimony of Eric Borden and Courtney Lane regarding the Petition for Approval of Beneficial Electrification Plan Under the Electric Vehicle Act, 20 ILCS 627/45 And New EV Charging Delivery Classes Under the Public Utilities Act, Article IX. On behalf of The People of the State of Illinois. September 22, 2022.

Public Utilities Commission of Maine (Docket No. 2022-00152): Direct Testimony of Melissa Whited-and Eric Borden regarding Central Maine Power Company's request for rate design increase and changes. On behalf of the Maine Office of the Public Advocate. December 2, 2022.

California Public Utilities Commission (A.21-06-021): Prepared Testimony Addressing Pacific Gas and Electric's Test Year 2023 General Rate Case – Wildfire Mitigation and New Customer Connections Cost Requests. June 13, 2022.

California Public Utilities Commission (A.21-09-008): Prepared Testimony Addressing the Reasonableness of Pacific Gas and Electric 2020 Vegetation Management Balancing Account Overspend. May 25, 2022.

California Public Utilities Commission (A.21-06-022): Prepared Testimony Addressing Pacific Gas and Electric's Framework for Substation Microgrid Solutions. March 30, 2022.

California Public Utilities Commission (A.21-10-010): Prepared Testimony Addressing Pacific Gas and Electric's Electric Vehicle Charge 2 Proposal. March 2, 2022.

California Public Utilities Commission (A.20-09-019): Prepared Testimony Addressing Pacific Gas and Electric's Wildfire Mitigation Memorandum Accounts. April 14, 2021.

California Public Utilities Commission (A.19-08-013): Prepared Testimony Addressing Southern California Edison's Test Year 2021 Track 2 General Rate Case Memorandum Account Request – Wildfire Expenditures. September 4, 2020.

California Public Utilities Commission (A.20-03-004): Joint Testimony with Eduyng Castano (SCE) Addressing Data Collection and Evaluation of the New Homes Battery Storage Pilot Program. September 1, 2020.

California Public Utilities Commission (A.19-10-012): Prepared Testimony Addressing San Diego Gas and Electric's Power Your Drive 2 Electric Vehicle Charging Infrastructure Proposal. May 18, 2020.

California Public Utilities Commission (A.19-08-013): Prepared Testimony Addressing Southern California Edison's General Rate Case Wildfire Management, Wildfire Risk, Vegetation Management, and New Service Connection Policy Issues and Cost Forecasts. May 5, 2020.

California Public Utilities Commission (A.18-12-009): Prepared Testimony Addressing Pacific Gas and Electric's Enhanced Vegetation Management and System Hardening Wildfire Mitigation Expenditures. July 26, 2019.

California Public Utilities Commission (A.18-09-002): Direct Testimony Addressing SCE's Grid Safety and Reliability Program Infrastructure Proposal. April 23, 2019.

California Public Utilities Commission (A.18-06-015): Rebuttal Testimony Addressing SCE's Charge Ready 2 EV Infrastructure Proposal. December 21, 2018.

California Public Utilities Commission (A.18-06-015): Direct Testimony Addressing SCE's Charge Ready 2 EV Infrastructure Proposal. November 20, 2018.

California Public Utilities Commission (A.17-12-011): Direct Testimony Regarding Potential Effects of More "Cost Based" TOU Rates and Seasonal Differentiation of Tiered Rates. October 26, 2018.

California Public Utilities Commission (A.18-02-016) et al.: Prepared Testimony Addressing Issues Pertaining to AB 2868 (Energy Storage). August 10, 2018.

California Public Utilities Commission (A.17-12-002) et al.: Prepared Testimony Addressing the Proposal of SCE for Energy Storage Procurement. April 9, 2018.

California Public Utilities Commission (A.17-01-020): Direct Testimony Addressing the Proposal of PG&E for a Fast Charging Infrastructure Program. July 25, 2017.

California Public Utility Commission (R.12-06-013): Direct Testimony Evaluating Hardship due to TOU Rates on Vulnerable Populations in Hot climate Zones. April 19, 2017.

California Public Utilities Commission (A.15-09-001): Direct Testimony Addressing the Proposal of PG&E for Electric Distribution and New Business Expenditures. April 29, 2016.

California Public Utilities Commission (A.15-02-009): Rebuttal Testimony Regarding PG&E's A.15-02-009 for EV Infrastructure and Education Program. December 21, 2015.

California Public Utilities Commission (A.15-02-009): Direct Testimony Regarding PG&E's EV Infrastructure and Education Program. November 20, 2015.

California Public Utilities Commission (A.14-11-003): Direct Testimony Addressing the Treatment of Solar Distributed Generation for Estimating Distribution System Capacity/Expansion Expenditures. May 15, 2015.

California Public Utilities Commission (A.14-04-014/R.13-11-007): Testimony Regarding SDG&E's Application for Authority to Build Electric Vehicle Charging Infrastructure. April 13, 2015.

Resume updated January 2025