



Rachel Wilson, Senior Researcher, Applied Economics Clinic

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PROFESSIONAL EXPERIENCE

Applied Economics Clinic, Somerville, MA. *Senior Researcher*, 2017 – Present.

Provides technical expertise on electric utility regulation, energy markets, and energy policy. Clients are primarily public service organizations working on topics related to the environment, consumer rights, the energy sector, and community equity.

Synapse Energy Economics Inc., Cambridge, MA. *Senior Associate*, 2013 – 2017, *Associate*, 2010 – 2013, *Research Associate*, 2008 – 2010.

Provided expert testimony and reports on integrated resource planning, coal plant economics, federal and state clean air policies, and electric system dispatch. Performed optimization and production cost modeling, benefit-cost analyses, and research on energy and environmental issues.

Analysis Group, Inc., Boston, MA. *Associate*, 2007 – 2008, *Senior Analyst Intern*, 2006 – 2007.

Supported development of expert witness testimony on various topics in the electric industry through research, data analysis, and the development of quantitative and financial models. Managed analysts' work processes and products.

Yale Center for Environmental Law and Policy, New Haven, CT. *Research Assistant*, 2003 – 2005.

Collected and managed data for the Environmental Performance Index, presented at the 2006 World Economic Forum. Interpreted statistical output, wrote critical analyses of results, and edited draft reports.

Marsh Risk and Insurance Services, Inc., Los Angeles, CA. *Risk Analyst*, 2003 – 2005.

Evaluated risk management programs and requirements for Fortune 500 clients. Formulated strategic plans and recommendations for customized risk solutions. Supported the placement of \$2 million in insurance premiums in the first year and \$3 million in the second year. Utilized quantitative models to create loss forecasts, cash flow analyses, and benchmarking reports.

EDUCATION

Yale School of Forestry and Environmental Studies, New Haven, CT

Master of Environmental Management, 2007

Claremont McKenna College, Claremont, CA

Bachelor of Arts in Environment, Economics, Politics (EEP), 2003. Cum Laude, Departmental Honors.

CERTIFICATIONS

Associate in Risk Management (ARM), professional designation by Insurance Institute of America (IIA)

PAPERS AND REPORTS

Wilson, R. 2017. *Integrated Resource Planning: Past, Present, and Future*. Presentation at Grid School, Institute of Public Utilities at Michigan State University. East Lansing, MI.

Wilson, R., S. Fields, P. Knight, E. McGee, W. Ong, N. Santen, T. Vitolo, E. A. Stanton. 2016. *Are the Atlantic Coast Pipeline and the Mountain Valley Pipeline Necessary? An examination of the need for additional pipeline capacity in Virginia and Carolinas*. Synapse Energy Economics for Southern Environmental Law Center and Appalachian Mountain Advocates.

Wilson, R., T. Comings, E. A. Stanton. 2015. *Analysis of the Tongue River Railroad Draft Environmental Impact Statement*. Synapse Energy Economics for Sierra Club and Earthjustice.

Wilson, R. 2015. *Best Practices in Clean Power Plan Planning*. NASEO/ACEEE Webinar.

Wilson, R., M. Whited, S. Jackson, B. Biewald, E. A. Stanton. 2015. *Best Practices in Planning for Clean Power Plan Compliance*. Synapse Energy Economics for the National Association of State Utility Consumer Advocates.

Luckow, P., E. A. Stanton, S. Fields, B. Biewald, S. Jackson, J. Fisher, R. Wilson. 2015. *2015 Carbon Dioxide Price Forecast*. Synapse Energy Economics.

Stanton, E. A., P. Knight, J. Daniel, B. Fagan, D. Hurley, J. Kallay, E. Karaca, G. Keith, E. Malone, W. Ong, P. Peterson, L. Silvestrini, K. Takahashi, R. Wilson. 2015. *Massachusetts Low Gas Demand Analysis: Final Report*. Synapse Energy Economics for the Massachusetts Department of Energy Resources.

Fagan, B., R. Wilson, D. White, T. Woolf. 2014. *Filing to the Nova Scotia Utility and Review Board on Nova Scotia Power's October 15, 2014 Integrated Resource Plan: Key Planning Observations and Action Plan Elements*. Synapse Energy Economics for the Nova Scotia Utility and Review Board.

Wilson, R., B. Biewald, D. White. 2014. *Review of BC Hydro's Alternatives Assessment Methodology*. Synapse Energy Economics for BC Hydro.

Wilson, R., B. Biewald. 2013. *Best Practices in Electric Utility Integrated Resource Planning: Examples of State Regulations and Recent Utility Plans*. Synapse Energy Economics for Regulatory Assistance Project.

Fagan, R., P. Luckow, D. White, R. Wilson. 2013. *The Net Benefits of Increased Wind Power in PJM*. Synapse Energy Economics for Energy Future Coalition.

Hornby, R., R. Wilson. 2013. *Evaluation of Merger Application filed by APCo and WPCo*. Synapse Energy Economics for West Virginia Consumer Advocate Division.

Johnston, L., R. Wilson. 2012. *Strategies for Decarbonizing Electric Power Supply*. Synapse Energy Economics for Regulatory Assistance Project, Global Power Best Practice Series, Paper #6.

Wilson, R., P. Luckow, B. Biewald, F. Ackerman, E. Hausman. 2012. *2012 Carbon Dioxide Price Forecast*. Synapse Energy Economics.

Hornby, R., R. Fagan, D. White, J. Rosenkranz, P. Knight, R. Wilson. 2012. *Potential Impacts of Replacing Retiring Coal Capacity in the Midwest Independent System Operator (MISO) Region with Natural Gas or Wind Capacity*. Synapse Energy Economics for Iowa Utilities Board.

Fagan, R., M. Chang, P. Knight, M. Schultz, T. Comings, E. Hausman, R. Wilson. 2012. *The Potential Rate Effects of Wind Energy and Transmission in the Midwest ISO Region*. Synapse Energy Economics for Energy Future Coalition.

Fisher, J., C. James, N. Hughes, D. White, R. Wilson, and B. Biewald. 2011. *Emissions Reductions from Renewable Energy and Energy Efficiency in California Air Quality Management Districts*. Synapse Energy Economics for California Energy Commission.

Wilson, R. 2011. *Comments Regarding MidAmerican Energy Company Filing on Coal-Fired Generation in Iowa*. Synapse Energy Economics for the Iowa Office of the Consumer Advocate.

Hausman, E., T. Comings, R. Wilson, and D. White. 2011. *Electricity Scenario Analysis for the Vermont Comprehensive Energy Plan 2011*. Synapse Energy Economics for Vermont Department of Public Service.

Hornby, R., P. Chernick, C. Swanson, D. White, J. Gifford, M. Chang, N. Hughes, M. Wittenstein, R. Wilson, B. Biewald. 2011. *Avoided Energy Supply Costs in New England: 2011 Report*. Synapse Energy Economics for Avoided-Energy-Supply-Component (AESC) Study Group.

Wilson, R., P. Peterson. 2011. *A Brief Survey of State Integrated Resource Planning Rules and Requirements*. Synapse Energy Economics for American Clean Skies Foundation.

Johnston, L., E. Hausman., B. Biewald, R. Wilson, D. White. 2011. *2011 Carbon Dioxide Price Forecast*. Synapse Energy Economics.

Fisher, J., R. Wilson, N. Hughes, M. Wittenstein, B. Biewald. 2011. *Benefits of Beyond BAU: Human, Social, and Environmental Damages Avoided Through the Retirement of the US Coal Fleet*. Synapse Energy Economics for Civil Society Institute.

Peterson, P., V. Sabodash, R. Wilson, D. Hurley. 2010. *Public Policy Impacts on Transmission Planning*. Synapse Energy Economics for Earthjustice.

Fisher, J., J. Levy, Y. Nishioka, P. Kirshen, R. Wilson, M. Chang, J. Kallay, C. James. 2010. *Co-Benefits of Energy Efficiency and Renewable Energy in Utah: Air Quality, Health and Water Benefits*. Synapse Energy Economics, Harvard School of Public Health, Tufts University for State of Utah Energy Office.

Fisher, J., C. James, L. Johnston, D. Schlissel, R. Wilson. 2009. *Energy Future: A Green*



Alternative for Michigan. Synapse Energy Economics for Natural Resources Defense Council (NRDC) and Energy Foundation.

Schlissel, D., R. Wilson, L. Johnston, D. White. 2009. *An Assessment of Santee Cooper's 2008 Resource Planning.* Synapse Energy Economics for Rockefeller Family Fund.

Wilson, R. 2009. *The Energy-Water Nexus: Interactions, Challenges, and Policy Solutions.* Presentation at the National Drinking Water Symposium. Orlando, FL.

Schlissel, D., A. Smith, R. Wilson. 2008. *Coal-Fired Power Plant Construction Costs.* Synapse Energy Economics.

TESTIMONY AND EXPERT COMMENTS

Wilson, R. 2017. *Direct and rebuttal testimony evaluating the prudence of environmental retrofits for Southwestern Electric Power Company's solid-fuel generating fleet.* Testimony to the Public Utility Commission of Texas. Docket No. 46449. April 25, 2017 and May 19, 2017.

Wilson, R. 2015. *Direct testimony evaluating the petition for a Certificate of Public Convenience and Necessity filed by Virginia Electric and Power Company to construct and operate the Greensville County Power Station and to increase electric rates to recover the cost of the project.* Testimony to the Virginia State Corporation Commission. Case No. PUE-2015-00075. November 5, 2015.

Wilson, R. 2015. *Direct and surrebuttal testimony evaluating the prudence of environmental retrofits at Kansas City Power & Light Company's La Cygne Generating Station.* Testimony to the Missouri Public Service Commission. Case No. ER-2014-0370. April 2, 2015 and June 5, 2015.

Wilson, R. 2014. *Direct testimony evaluating the modeling of Oklahoma Gas & Electric supporting its request for approval and cost recovery of a Clean Air Act compliance plan and Mustang modernization, and presenting results of independent Gentrader modeling analysis.* Testimony to the Oklahoma Corporation Commission. Cause No. PUD 201400229. December 16, 2014.

Wilson, R. 2013. *Direct testimony before the Commission discussing Strategist modeling relating to the application of Consumers Energy Company for the authority to increase its rates for the generation and distribution of electricity.* Testimony to the Michigan Public Service Commission. Case No. U-17087. February 21, 2013.

Wilson, R. 2012. *Direct testimony before the Commission discussing PROSYM/Market Analytics modeling relating to the application of Duke Energy Indiana for Certificates of Public Convenience and Necessity.* Testimony to the Indiana Utility Regulatory Commission. Cause No. 44217. November 29, 2012.

Wilson, R. 2012. *Direct testimony before the Commission discussing upcoming environmental regulations and electric system modeling relating to the application of Big Rivers Electric Corporation for a Certificate of Public Convenience and Necessity and for approval of its 2012 environmental compliance plan.* Testimony to the Kentucky Public Service Commission. Case No. 2012-00063. July 23, 2012.



Wilson, R. 2012. *Direct testimony before the Commission discussing STRATEGIST modeling relating to the application of Kentucky Power Company for a Certificate of Public Convenience and Necessity, and for approval of its 2011 environmental compliance plan and amended environmental cost recovery surcharge.* Testimony to the Kentucky Public Service Commission. Case No. 2011-00401. March 12, 2012.

Wilson, R. 2011. *Direct testimony before the Commission discussing STRATEGIST modeling relating to the applications of Kentucky Utilities Company, and Louisville Gas and Electric Company for Certificates of Public Convenience and Necessity, and approval of its 2011 compliance plan for recovery by environmental surcharge.* Testimony to the Kentucky Public Service Commission. Case No. 2011-00161 and Case No. 2011-00162. September 16, 2011.

Wilson, R. 2011. *Rebuttal testimony before the Commission describing STRATEGIST modeling performed in the docket considering Otter Tail Power's application for an Advanced Determination of Prudence for BART retrofits at its Big Stone plant.* Testimony to the Minnesota Public Utilities Commission. OAH Docket No. 8-2500-22094-2 and MPUC Docket No. E- 017/M-10-1082. September 7, 2011.

Resume dated June 2017