

MARC H. VATTER

EDUCATION

Ph.D. in Economics, Brown University, Providence, RI, 2007

M.A. in Economics, Brown University, Providence, RI, 1999

B.A. in Economics with departmental honors, University of Oregon, Eugene, OR, 1986

CONSULTING EXPERIENCE

Hitachi Energy, June 2021 - present

- Analysis, modeling, and reporting on wholesale power markets using PROMOD

The Economic Utility Group, February 2021 - June 2021

- Research on climate change for International Association for Energy Economics' working paper series and 2021 international conference

Elevation Direct Corporation, Las Vegas, NV, July 2015 - January 2021

- Jointly sponsored testimony before the Rhode Island PUC on the employment impacts of Clear River Energy Center (CREC) for the Rhode Island Building and Construction Trades Council; individually sponsored rebuttal testimony on the need for CREC
- Used Aurora (a capacity expansion and production cost model) to evaluate potential purchase of Termoelectrica de Mexicali, a combined cycle natural gas-fired generator
- Used Aurora to forecast wholesale electric prices in Michigan and sponsored testimony on behalf of Michigan Public Service Commission staff in a case regarding a purchased power agreement for the output of the Palisades nuclear plant
- Recent work in restructured wholesale power market in Mexico
 - Provided forecasts of gross state product, loads, fuel prices, energy, congestion, loss, ancillary service, and capacity prices, as well as prices of clean energy certificates and social costs of emissions in evaluations of pumped storage, combined-cycle gas, internal combustion, and wind and solar facilities in Mexico; co-authored market studies done using Plexos (another capacity expansion and production cost model) and Aurora
 - Assembled Mexican database and used Aurora to model expansion and operation of power grid for several independent generators
 - Co-authored a report on the economics of introducing liquefied natural gas to southern Baja California
 - Estimated a weighted average cost of capital to Comisión Federal de Electricidad (CFE)
 - Trained employees of CFE in load forecasting
 - Estimated Herfindahl-Hirschman indices of market concentration following breakup of CFE under Mexican energy reform

Economic Insight, Sisters, OR, January 2010 - March 2013

- Used Aurora to model electric resource planning in the Pacific Northwest
- Used Aurora to estimate trade benefits of Entergy and South Mississippi Electric Power Association joining regional transmission organizations, sponsored testimony before the Mississippi Public Service Commission (MPSC)
- Assessed application to install pollution controls on coal plant; jointly testified before MPSC
- Estimated dollars of spending per employee by generating technology
- Analyzed issues regarding pricing and royalties in geothermal and natural gas leases in California and Texas;
- Analyzed pricing and alleged use of market power in California power crisis
- Estimated lost earnings in a wrongful death lawsuit and testified to report
- **Editor** of scholarly research written by non-native speakers of English (intermittent)

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CONSULTING EXPERIENCE (CONTINUED)

Assistant consulting economist to personal injury and wrongful death litigants, Allan M. Feldman, Providence, RI, 2002-2003

- Worklife evaluation for litigation related to personal injury or wrongful death

Research Associate, Synapse Energy Economics, Cambridge, MA, July 1998 - February 1999

- Evaluated forecasts of electricity prices submitted in “stranded-cost” claim by four Maryland utilities

Associate Economist, Economic Insight, Portland, OR, May 1988 - September 1988

- Surveyed forecasts of electricity prices and estimates of demand elasticities related to litigation over Washington Public Power Supply System bond defaults

Technical Assistant, ECO Northwest, Eugene, OR, July 1986 - August 1987

- Worklife evaluation for litigation related to personal injury and wrongful death; wrote company training manual on the subject

GOVERNMENTAL EXPERIENCE

Associate Economist, New York Department of Public Service, Albany, NY, August 2006 - December 2007

Industry Economist, Bonneville Power Administration, Portland, OR, May 1994 - June 1997

- Authored and testified to marginal cost analysis in 1996 rate case before FERC
 - Helped prepare inputs to and interpreted and applied results of Power Marketing Decision Analysis Model (PMDAM) to rate design and to planning and evaluation of resources
 - Prepared and conducted public meetings on analysis and its implications for rate design
 - Fielded and incorporated comments from a variety of participants
 - Authored rate case study, documentation, and testimony

Public Utilities Specialist, Bonneville Power Administration, Portland, OR, September 1988 - May 1994

- Research on marginal costs of generating and marketing hydropower on the West Coast
- Prepared workshop briefing material, rate case studies, and documentation supporting Marginal Cost Analysis and other rate-related issues as assigned
- Evaluated contracts for disposition of wholesale power

TEACHING EXPERIENCE

Adjunct Professor of Economics, Rivier University, Nashua, NH, January 2020 - present.

Average student rating: 85%

Visiting Assistant Professor of Economics, Universidad del Pacifico, Jesús María, Lima, Peru, September 2014. Average student rating: 85%.

- Taught topical graduate course in energy economics

Visiting Assistant Professor of Economics, Pacific University, Forest Grove, OR, August 2008 - May 2009. Average student rating: 63%.

- Taught principles of microeconomics, environmental economics, and international trade

Lecturer in Economics, Eastern Connecticut State University, Willimantic, CT, August 2005 - May 2006. Average student rating: 70%.

- Taught principles of microeconomics

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TEACHING EXPERIENCE (CONTINUED)

Teaching Assistant to Harl Ryder and others, Brown University, Providence, RI, September 1999 - May 2002. Average student rating: 59%.

- Teaching Assistant for Principles of Micro- and Macroeconomics

Teacher, English as a Second Language, Changsha Normal University of Water Resources and Electric Power, Changsha, Hunan, PRC, August 1987 - January 1988; Brown University, Providence, RI, Summer 2001

RESEARCH

Vatter, M. (2021). Pricing climate change as a mortal threat. United States Association for Energy Economics Working Paper No. 21-491. <http://ssrn.com/abstract=3821603>

Vatter, M., Van Vactor, S., & Coburn, T. (2020). The impact of U.S. shale oil on the global oil market: case study, Bakken Shale. United States Association for Energy Economics Working Paper No. 20-452. <http://ssrn.com/abstract=3617185>

Vatter, M. (2020). Stratified zoning in central cities. *Journal of Housing Economics*, 50. <https://doi.org/10.1016/j.jhe.2020.101716>

Van Vactor, S., Vatter, M., & Coburn, T. (2019). Decline rates in the Bakken Shale. International Association for Energy Economics Conference Proceedings, Montreal, May 29 -Jun 1. <https://www.iaee.org/proceedings/article/16313>

Vatter, M. (2019). OPEC's risk premia and volatility in oil prices. *International Advances in Economic Research*, 25:2. DOI: [10.1007/s11294-019-09734-7](https://doi.org/10.1007/s11294-019-09734-7)

Vatter, M., & Suurkask, D. (2018). The impact of trade with the United States on electric loads in Mexico. *Heliyon*, 4:8. <https://doi.org/10.1016/j.heliyon.2018.e00717>

Vatter, M. (2017). OPEC's kinked demand curve. *Energy Economics*, 63(March 2017), pp. 272-287. <https://doi.org/10.1016/j.eneco.2017.02.010>

Vatter, M., & Suurkask, D. (2017). The impact of international trade on electric loads in Mexico. *International Association for Energy Economics Energy Forum*, 2nd quarter 2017. <https://www.iaee.org/en/publications/newsletterdl.aspx?id=406>.

Vatter, M. (2017). Stockpiling to contain OPEC. United States Association for Energy Economics Working Paper No. 17-136. <http://ssrn.com/abstract=912311>. Presented at 2008 USAEE conference; see <http://www.usaee.org/usaee2008/submissions/Presentations/Marc%20Vatter.pdf>

Vatter, M. (2017). Social discounting with diminishing returns on investment. <http://ssrn.com/abstract=1078502>

Vatter, M., & Barney, F. (2016). Macroeconomic risk and residential rate design. United States Association for Energy Economics Working Paper No. 15-208. <http://ssrn.com/abstract=2596258>

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RESEARCH (CONTINUED)

Vatter, M. (2008). OPEC's demand curve. <http://ssrn.com/abstract=1127642>. Reviewed at <http://knowledgeproblem.com/2008/05/14/> .

Research Assistant to Allan M. Feldman, valuation of individual earning capacity, Brown University, 2000

Research Assistant to J. Vernon Henderson, industrial location in Indonesia, Brown University, Summer 1999

STREAMING MEDIA

IAEE webinar: Is another oil price shock possible, and would it matter? January 11, 2021; available at https://www.iaee.org/en/webinars/webinar_vatter.aspx

USAAE podcast: OPEC as a destabilizing influence, July 21, 2020; available at <https://www.usaae.org/podcasts.aspx>

Video: **Discussing transmission costs with New Hampshire Senate Energy and Natural Resources Chair Kevin Avar**; available at https://www.youtube.com/watch?v=QRkLdLplz9Y&feature=youtu.be&fbclid=IwAR2Euva286vNRa5Lit0RstjHwtPuV5a_t439Cml4Z8S2WHYptXNdJ40vkZs

Video: **Discussing manufacturing, net metering rate design, and transmission costs on *Perspectives* with David Schoneman**; available at <https://youtu.be/m9YRY3U-DzM>

AWARDS

Twelve monetary awards for job performance at Bonneville Power Administration
Award for best undergraduate research project in economics at University of Oregon; examined deregulation of U.S. airline industry

OTHER ACTIVITIES

Monitored the House Science, Technology, and Energy Committee in Concord, NH for the Northeast Energy and Commerce Association

Peer Reviewer for *Land Economics*: effects of endowments of petroleum resources on corruption, 2008; hedging in coal contracts under the acid rain program, 2010-11; suburban agriculture as an amenity, 2012; prorationing versus unitization in the U.S. petroleum industry in the 20th century

Founded and managed "Micro Lunch" seminar, Brown University, 2001-2002

Role of expert witness in Lewis & Clark Law School's mock personal-injury litigation, 1996

Peer Advisor, Department of Economics, University of Oregon, 1984-1986

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MEMBERSHIPS

The Economic Utility Group; International and United States Associations for Energy Economics; American Economic Association; Energy Bar Association; New Hampshire Business and Industry Association; Northeast Energy and Commerce Association

TESTIMONIALS

"We asked Marc to provide us with a forecast of future locational marginal prices under two different scenarios, which he managed very well. He provided us with testimony that was on point and met our needs." Lauren Donofrio, Assistant Attorney General, Public Service Division, State of Michigan

"Marc Vatter provided joint testimony with Sam Van Vactor on behalf of Staff in 2010 regarding Mississippi Power's application to install pollution controls on the Victor J. Daniel coal-fired generator. He brought to light critical issues regarding uncertainty over natural gas prices that bore on the decision to install scrubbers. We hired the two again in 2012 in a proceeding on integrating Entergy's transmission assets into a regional transmission organization. Marc added significant detail representing the state of Mississippi to a production cost and capacity expansion model that he used to quantify the effects of integration. A number of consultants engaged in similar efforts, and Marc's analysis was of superior quality." Dr. Christopher Garbacz, Director, Economics & Planning Division, Mississippi Public Utilities Staff