

STEPHEN GROVER

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Stephen Grover is a Ph.D. economist who joined ECONorthwest in 2000 as a senior economist and project manager. He currently leads ECONorthwest's energy practice area. In addition to work at ECONorthwest, Dr. Grover is also an adjunct professor at Portland State University where he teaches a course in econometric simulation and forecasting and in energy modeling and economics. Dr. Grover's expertise is in discrete choice modeling and estimating models of consumer behavior using revealed and stated preference techniques. He has utilized these skills in a wide range of applications, including energy, litigation support, transportation, and environmental projects. Most recently, Grover has applied these techniques to research environmental and non-market valuation issues and to estimate consumer willingness to pay for energy efficiency. He has managed and worked on projects for the U.S. Department of Energy, U.S. Environmental Protection Agency, National Renewable Energy Lab, as well as for some of the largest electric utilities in the country.

Energy Project Experience

- For the CPUC, conducting impact evaluation to estimate embedded energy savings from water conservation pilot programs in California.
- Developed discrete choice model for net impact analysis of California's Express Efficiency and Non-residential Audit programs.
- For SDG&E and SCG, assisting with a process evaluation of all SDG&E and SoCal Gas non-residential efficiency programs (subcontractor to Kema).
- For SDG&E and SCG, conducting a process evaluation of all SDG&E and SoCal Gas residential efficiency programs.
- For Energy Trust of Oregon, conducting an impact and process evaluation of the Home Energy Services Program utilizing both a billing regression and discrete choice model to estimate impacts.
- For the CPUC, assisting with the impact evaluation and discrete choice modeling for the 2006-08 small commercial efficiency programs.
- For the CPUC, assisting with the impact evaluation of the 2006-08 local government partnership efficiency programs.
- For SCE, conducting an evaluation of the Home Energy Efficiency Survey (HEES).
- For the Northwest Energy Efficiency Alliance, conducting an evaluation of the ENERGY STAR Homes Northwest program.
- For Southern California Edison, conducted a process evaluation of the Statewide Emerging Technologies Program.

ECONorthwest

- For the Oregon DOE, estimated the economic impacts of its business and residential energy tax credits (BETC/RETC).
- For Pacific Gas and Electric, conducting evaluation of seven local government energy conservation programs operating in partnership with local governments.
- For the Bonneville Power Administration, conducting a process evaluation of their Residential Loan Program offered for energy efficiency equipment investments.
- For Sempra Utilities, conducting impact and process evaluations for two commercial conservation programs.
- For Southern California Edison, performing an impact evaluation to determine energy savings resulting from a non-residential financial incentives program.
- For the State of Washington, developed a guidebook to help rural counties to estimate the potential economic impacts of small wind projects.
- For Vestas Wind, estimated the economic benefits to Oregon of having a wind power manufacturing plant located within the state.
- For the Northwest Energy Efficiency Alliance, developed guidelines and a financing guidebook for hospitals considering outsourcing energy management for their facilities.
- For the National Renewable Energy Laboratory (NREL), conducting a market assessment for commercial solar energy technologies.
- For the New York State Energy Research and Development Authority (NYSERDA), developing logic models and program theory for the 41 energy efficiency and renewable energy programs included in the New York Energy Smart program portfolio.
- For Enbridge Consumer Gas in Toronto, conducting an audit of their 2002 and 2003 DSM program evaluations and providing recommendations on evaluation and reporting procedures.
- For the Energy Trust of Oregon, conducting process evaluations of their residential and commercial new construction programs and assessing market areas that new programs should target.
- For the Energy Trust of Oregon, estimated economic impacts of program spending and energy savings attributed to their energy efficiency and renewable energy programs.
- For a local economic development group, analyzed the potential economic benefits and effects on property values of a large wind energy farm in Kittitas County, WA.
- For NREL and the DOE, wrote report documenting the effects of Federal R&D in energy efficient technologies in the buildings sector over the last 25 years.
- For NREL, assessed status of solar energy research and provided recommendations for future R&D for several solar technologies.
- Measurement and evaluation of the market transformation effects of an Energy Star residential lighting program for the Northwest Energy Efficiency Alliance.
- For a private client, analyzed potential costs associated with public-private ownership of Portland General Electric.
- Verification analysis of DSM program savings estimates for California utilities for the California PUC Office of Ratepayer Advocates.
- Ongoing economic analysis support for researching clean energy issues for the National Renewable Energy Laboratory.

Selected Recent Publications

- “Hard to Reach? Hard to Tell Lessons Learned From California”, with Peter Graven and Rob Rubin, in *Proceedings of the 2005 International Energy Program Evaluation Conference*, New York, NY, August 2005.
- “Local Government Partnerships: Working Together for Efficiency A Theoretical Portfolio Analysis Method”, with Chris Ann Dickerson, Valerie Richardson, Betsy Krieg, and Craig Tyler, in *Proceedings of the 2005 International Energy Program Evaluation Conference*, New York, NY, August 2005.
- “Private-Sector Commercial Customers and Market Drivers to Early Solar Adoptions”, with Robert Margolis, in *Proceedings of the World Renewable Energy Congress VIII* (Denver, CO), September 2004.
- “Reaping the Wind: The Economic Impacts of Spending on Renewable Energy and Energy Efficiency Programs”, with Alec Josephson, Ben Bronfman, and Fred Gordon, *Proceedings of the ACEEE 2004 Summer Study on Energy Efficiency in Buildings*, Washington DC, ACEEE, 2004.
- “Consumer Preferences for CFLs Over Time: Where Are We Going?”, with Peter Graven and Emily French, *Proceedings of the ACEEE 2004 Summer Study on Energy Efficiency in Buildings*, Washington DC, ACEEE, 2004.
- “Commercial Customers and Market Drivers to Early Solar Adoptions”, with Robert Margolis. *Proceedings of 33rd ASES Annual Conference*, Boulder, CO, 2004.
- “A Comparison of Rebates and Non-Rebate Promotions in a Residential Lighting Program”, with Charisa Flaherty, *Proceedings of the 2003 IEPE Conference*, IEPE, Oregon, WI, 2003.
- “The Economic Impacts of a Proposed Wind Power Plant in Kittitas County, Washington State, USA.” *Wind Energy Engineering*, Volume 26, No. 5 (2002).
- “Saturation, Penetration, Transformation: How Do You Know When a Market Has Changed?”, with David Cohan and My Ton, *Proceedings of the ACEEE 2002 Summer Study on Energy Efficiency in Buildings*, Washington DC, ACEEE.
- “Shedding Light on Energy Star Markets: Evaluation Lessons Learned from a Retail Lighting Market Transformation Program”, with David Cohan, *Proceedings of the 2001 IEPE Conference*, IEPE, Oregon, WI, 2001.
- “Pay Now, Save Later: Using Conjoint Analysis to Estimate Consumers’ Willingness to Pay for Energy Efficiency”, with Bill Babiuch, *Proceedings of the ACEEE 2000 Summer Study on Energy Efficiency in Buildings*, Washington DC, ACEEE, 2000.
- “High Efficiency Clothes Washers: Whiter Whites, Less Energy?”, with Christie Torok and Bill Babiuch, in *Proceedings of the 1999 International Energy Program Evaluation Conference*, Denver, CO, 1999.
- “Market Penetration: How to Predict the Future,” with Ibbie Ikenze-Bates, in *Proceedings of the ACEEE 1998 Summer Study on Energy Efficiency in Buildings*, Washington DC, ACEEE, 1998.