

## James P. Griffin, Ph.D.

### PRESENT POSITION

Interim Commissioner, Hawaii Public Utilities Commission

### EDUCATION

Ph.D., Policy Analysis, Pardee RAND Graduate School, [REDACTED]

M.A., Economics, University of California at Santa Barbara, [REDACTED]

M.P.P./M.E.M., Public Policy and Environmental Management, Duke University, [REDACTED]

B.A., Political Economy, *cum laude*, Williams College, [REDACTED]

### EXPERIENCE

#### **2016 - 2017 Assistant Researcher, Hawaii Natural Energy Institute**

- Developed integrated research program in distributed energy resource (DER) technologies.
- Collaborated with U.S. National Labs, leading technology companies, and electric utilities in design and development of research and demonstration projects.
- Research team member on renewable energy grid integration studies.

#### **2012 – 2016 Chief of Policy and Research, Hawaii Public Utilities Commission**

- Led Public Utilities Commission (PUC) staff and consultant teams to analyze key state energy policy decisions including long-term power supply planning, tariff design and interconnection standards for DERs, competitive procurement of renewable energy projects, and development of demand response programs.
- Supervised teams of PUC staff and consultants to implement PUC-led energy-related programs, including third-party energy efficiency program (“Hawaii Energy”).
- Directly consulted and advised PUC Commissioners on policy decisions.
- Managed PUC’s legislative activities and interactions with other state agencies on energy policy decisions.
- Member of PUC’s senior management team responsible for staffing decisions, administration of regulatory dockets, and strategic planning for agency.
- Actively participated in national and international regulatory association meetings and proceedings, including National Association of Regulatory Utility Commissioners (NARUC) and Federal Energy Regulatory Commission (FERC).

**2009-2012 Assistant Specialist, Hawaii Natural Energy Institute**

- Principal Investigator (PI) of competitively awarded Department of Energy-funded smart grid demonstration project on Maui (“Maui Smart Grid Project”) with total budget of approximately \$14 million.
- Led successful proposal team for competitively awarded Department of Energy-funded advanced solar photovoltaic (PV) inverter development and demonstration project with total budget of approximately \$13 million.
- Working Group and Steering Committee member for Japan-U.S. Island Grid Project funded by New Energy and Industrial Technology Development Organization (NEDO) with total budget of approximately \$37 million.
- Member of research team and technical review committee for renewable energy grid integration studies, including the Hawaii Island Energy Roadmap Study and Hawaii Solar Integration Study (HSIS).
- Member of research team that developed energy-economic models for analysis of public policy in Hawaii.
- Regularly presented research results in public forums, academic conferences, and funding agency review meetings; led public outreach efforts on smart grid demonstration projects on Maui.

**2004-2009 Policy Analyst, RAND Corporation**

- Created simulation models of Israel’s electricity system for analysis of long-term strategies in natural gas infrastructure development.
- Developed simulation models for analysis of a national 25% renewable energy requirement in U.S. electricity and motor vehicle transportation fuels markets.
- Performed benefit-cost analysis of new automobile engines and fuels.
- Conducted econometric study of regional differences in price-elasticity of demand for energy.

**2001, 2003 Legislative Analyst, State Representative Hermina Morita**

- Researched policy issues and legislation to support Representative’s role as Chair of Energy and Environmental Protection Committee.
- Drafted and edited major energy legislation, including Net Energy Metering (NEM) and Renewable Portfolio Standards (RPS).
- Wrote speeches and press releases on energy and environmental policy issues.
- Primary office contact for correspondence with constituents.

**2001-2002 Conservation Organizer, Sierra Club, Hawaii Chapter**

- Managed statewide campaign to protect coastal lands.
- Wrote press releases and op-ed pieces to support campaign.
- Developed media events to publicize campaign.

**2000 Watershed Assessment Project Manager, Hanalei Heritage River Program**

- Established Geographic Information Systems (GIS) database of watershed's natural, cultural, and historical resources.
- Trained organization staff and community members to use ArcView GIS software.
- Performed watershed ecosystem function assessment.
- Presented results in a community forum broadcast on local cable access station.

**1999 Research Assistant, Duke University**

- Assisted with water quality data collection on Pamlico Sound.
- Managed database as part of a major multi-university water quality monitoring program.

**PROFESSIONAL AFFILIATIONS**

Core team member, U.S. Department of Energy DSPx Initiative, 2016-2017.

Attendee, Rocky Mountain Institute (RMI) Electricity Innovation Laboratory (e-Lab) Summit, December 2016.

Member, NARUC Staff Subcommittee on Rate Design, 2016.

Member, NARUC Staff Subcommittee on Energy, Resources, and Environment (ERE), 2013-2016.

Member, NARUC Staff Subcommittee on Critical Infrastructure (CI), 2013-2016.

Program committee, Maui Energy Conference, 2013-present.

Attendee, Rocky Mountain Institute (RMI) Electricity Innovation Laboratory (e-Lab), 2013 and 2014.

Mentor, Energy Excelerator (EEx), 2013-present.

Member, Hawaii Clean Energy Initiative (HCEI) Electricity Working Group, 2010-2012.

**PUBLICATIONS**

Coffman, Makena, James P. Griffin, and Paul Bernstein, "An Assessment of Greenhouse Gas Emissions-Weighted Clean Energy Standard," *Energy Policy*, Vol. 45, June 2012, pp. 122-132.

Miller, Nicholas, Devon Manz, Harjeet Johal, Sebastian Achilles, Leon Roose, and James P. Griffin, "Integrating High Levels of Wind in Island Systems: Lessons from Hawaii," *Proceedings of 2<sup>nd</sup> IEEE International Conference on Sustainable Energy Technologies*, IEEE International Conference on Sustainable Energy Technologies, Sri Lanka, 2010.

Keefe, Ryan, James P. Griffin, and John D. Graham, "The Benefits and Costs of New Fuels and Engines for Cars and Light Trucks," *Risk Analysis*, Vol. 28, No. 5, October 2008, pp. 1141-1154, Received "Paper of the Year Award" in 2008 by Society for Risk Analysis.

### **Internal Reports and Other Unpublished Work**

- Public Utilities Commission staff report, “Staff Report and Proposal in Docket No. 2014-0192,” Hawaii PUC Order No. 32737, March 2015.
- Wagner, Amy Guy, James P. Griffin, David Parsons, and Sean Mikell, “Evaluation of Hawaii’s Renewable Energy Policy and Procurement,” January 2014.
- Public Utilities Commission staff report, “Report to the 2014 Legislature on the Public Utilities Commission Review of Hawaii’s Renewable Portfolio Standards,” Report prepared pursuant to Section 269-95(5), Hawaii Revised Statutes, December 2013.
- Public Utilities Commission staff report, “Report to the 2014 Legislature on Hawaii’s Energy Efficiency Portfolio Standards,” Report prepared pursuant to Section 269-96, Hawaii Revised Statutes, December 2013.
- Manz, Devon, Harjeet Johal, Dean Arakawa, and James P. Griffin, *Oahu Wind Integration Study*, Technical report prepared for the U.S. Department of Energy Office of Electricity Delivery and Energy Reliability Under Award No. DE-FC-06NT42847, University of Hawaii-Hawaii Natural Energy Institute, Honolulu, HI, February 2011.
- Popper, Steven W., James P. Griffin, Claude Berrebi, Thomas Light, and Endy Min, *Natural Gas and Israel's Energy Future: Near-term Decisions from a Strategic Perspective*, RAND Technical Report # TR-747, RAND Corporation, Santa Monica, CA, December 2009.
- Popper, Steven W., Claude Berrebi, James P. Griffin, Thomas Light, and Endy Min, *Natural Gas and Israel's Energy Future: Near-term Decisions from a Strategic Perspective*, RAND Monograph # MG-927, RAND Corporation, Santa Monica, CA, December 2009.
- Surles, Terrence, James P. Griffin, and Devon Manz, *Development and Evaluation of Sustainable Energy Scenarios for the Island of Hawaii*, Technical report prepared for the U.S. Department of Energy Office of Electricity Delivery and Energy Reliability Under Award No. DE-FC-06NT42847, University of Hawaii-Hawaii Natural Energy Institute, Honolulu, HI, August 2009.
- Griffin, James P., *Improving Cost-Effectiveness and Mitigating Risks of Renewable Energy Requirements*, Pardee RAND Graduate School Dissertation RGSD-236, RAND Corporation, Santa Monica, CA, 2008.
- Sorensen, Paul, Martin Wachs, Endy Y. Min, Aaron Kofner, Liisa Ecola, Mark Hanson, Allison Yoh, Thomas Light, and James P. Griffin, *Moving Los Angeles: Short-Term Policy Options for Improving Transportation*, RAND Monograph MG-748, RAND Corporation, Santa Monica, CA, 2008.
- Toman, Michael, James P. Griffin, and Robert J. Lempert, *Impacts on U.S. Energy Expenditures of Increasing Renewable Energy Use*, RAND Technical Report TR-384-1, RAND Corporation, Santa Monica, CA, 2008.
- Groves, David G., James P. Griffin, and Sara Hajiamiri, *Estimating the Value of Water-Use Efficiency in the Intermountain West*, RAND Technical Report TR-504-HF, RAND Corporation, Santa Monica, CA, 2008.
- Bernstein, Mark and James P. Griffin, “*Regional Differences in the Price-Elasticity of Demand for Energy*,” RAND Technical Report TR-292-NREL, RAND Corporation, Santa Monica, CA, 2005.

### **Invited Conference Presentations**

- Rocheleau, Richard, John Cole, James P. Griffin, Leon Roose, “Research on Energy System Resilience at the Hawaii Natural Energy Institute,” 2017 Maui Energy Conference, Kahului, HI, March 2017.
- Griffin, James P., “Hawaii Experience with DER Integration,” 2016 National Distributed Energy Future Conference, Panel session – “Planning for DSPx: Technical Needs and Opportunities”, San Francisco, CA, November 2016.
- Griffin, James P., “Overview of Hawaii’s Grid Modernization Efforts,” 2016 IEEE Innovative Smart Grid Technologies Conference, Plenary session: A Regulatory Perspective on Grid Modernization, Minneapolis, MN, September 2016.
- Griffin, James P., “Overview of Hawaii Clean Energy Policies,” USAID/PURA/NARUC The 3<sup>rd</sup> Gambia National Forum Policy for Small Scale Renewable Energy Regulation, Banjul, The Gambia, June 2014.
- Griffin, James P., “Hawaii Feed-In Tariff Development and Electricity Reliability Programs,” USAID/PURA/NARUC The 3<sup>rd</sup> Gambia National Forum: Policy for Small Scale Renewable Energy Regulation, Banjul, The Gambia, June 2014.
- Griffin, James P., “Energy Storage: Game Changer for the Electric Utility Industry,” Western Conference of Public Utility Commissioners, Seattle, WA, June 2014.
- Griffin, James P., “Innovative Financing Solutions to Hawaii’s Clean Energy Challenges,” American Council for an Energy Efficient Economy 7<sup>th</sup> Annual Energy Efficiency Forum, Chicago, IL, Presenter on Panel Discussion on Enhancing Project Credit with On-Bill Financing and On-Bill Repayment, May 2013.
- Griffin, James P., “Maui Smart Grid Project,” Department of Energy Peer Review Meeting, San Diego, CA, June 2012.
- Griffin, James P., “Maui Smart Grid Project and Hawaii-Okinawa Initiative,” Northeast Asia Economic Forum Expert Group on Energy Cooperation, Honolulu, HI, April 2011.
- Griffin, James P., “Maui Smart Grid Project,” Department of Energy Peer Review Meeting, Denver, CO, November 2010.
- Coffman, Makena and James P. Griffin, “Assessing Hawaii’s Clean Energy Options,” Presentation at the 2010 World Congress on Zero Emissions Initiatives, Honolulu, HI, September 2010.
- Griffin, James P., “Hawaii Energy Trends and Integration of Renewable Energy in the Hawaiian Islands,” Invited presentation at the 2010 Northeast Asia Economic Forum Expert Group on Energy Cooperation, Honolulu, HI, March 2010.
- Griffin, James P., Terrence Surlis, and Larry Markel, “Maui Smart Grid Demonstration Project Status Report,” Invited presentation at the 2009 International Microgrid Symposium, San Diego, CA, September 2009.
- Lempert, Robert J. and James P. Griffin, “Managing Risks of Aggressive Policies to Technology Transitions: Case of Renewable Energy Requirements,” Presentation at the Energy Modeling Forum Workshop: Climate Change Impacts and Integrated Assessment, Snowmass, CO, August 2008.
- Graham, John D., Ryan Keefe, and James P. Griffin, “The Future of Ethanol, Hybrids, and Diesels in Cars and Light Trucks,” Presentation at the Association for Public Policy Analysis and Management Annual Conference, Washington, D.C., November 2007.

- Graham, John D., Ryan Keefe, and James P. Griffin, “Fuel Comparisons: Ethanol, Advanced Diesel, Hybrid, and Gasoline,” Presentation at the National Academy of Sciences Institute of Medicine Roundtable on Environmental Health Services, Research, and Medicine, Washington, D.C., November 2007.
- Griffin, James P., David Groves, and Sara Hajiamiri, “Valuing Benefits of Water Use Efficiency in the Intermountain West: Application of New Methods in Valuation and Uncertainty,” Presentation at the American Water Resources Association Annual Conference, Albuquerque, NM, November 2007.
- Griffin, James P. and Michael Toman, “Preliminary Cost Estimates for a 25% Renewable Electricity and Fuels Requirement,” Invited Presentation at the American Solar Energy Society (ASES) SOLAR 2007 Conference, Cleveland, OH, July 2007.
- Griffin, James P. and Michael Toman, “Preliminary Cost Estimates for a 25% Renewable Electricity and Fuels Requirement,” Invited Presentation to staff at the National Renewable Energy Laboratory (NREL), Golden, CO, March 2007.

### **Departmental Seminars**

- Griffin, James P., “Public Utilities Commission’s Role in Hawaii Energy Policy,” University of Hawaii Economic Research Organization (UHERO) Workshop on Energy and Environmental Research, Honolulu, HI, November 2016.
- Griffin, James P., “Maui’s Smart Grid Projects,” Presentation in the UH Renewable Energy and Island Sustainability (REIS) Fall Seminar Series, Honolulu, HI, September 2011.
- Griffin, James P., “Smart Grids and Maui’s Energy Future,” UH-Maui College Pau Hana Sustainability Series, Kahului, HI, June 2011.

### **Other Invited Presentations**

- Griffin, James P., “Smart Grid Demonstrations in the Test Bed,” Asia Pacific Clean Energy Summit, Honolulu, HI, Panel Discussion on Smart Grid Projects in Hawaii, August 2012.
- Griffin, James P., “Update on RDSI and SEGIS-AC Smart Grid Demonstration Projects on Maui,” Japan-U.S. Maui Smart Grid Project Meeting, National Renewable Energy Laboratory, Golden, CO, January 2012.
- Griffin, James P., “Overview of Smart Grid Demonstration Projects on Maui,” Kona Town Hall Meeting, Kailua-Kona, HI, November 2011.
- Griffin, James P., “Overview of Smart Grid Demonstration Projects on Maui,” Maui Economic Development Board (MEDB) Board of Directors Meeting, Kihei, HI, November 2011.
- Griffin, James P., “DOE-Funded Demonstration Projects on Maui,” Asia Pacific Business Roundtable at Asia Pacific Economic Cooperation (APEC) Summit Meetings, Honolulu, HI, November 2011.
- Griffin, James P., “Maui Smart Grid Project” Panel presentation at the Asia Pacific Clean Energy Summit, Honolulu, HI, September 2011.
- Griffin, James P., “Oahu Wind Integration Study,” Presentation to the Public Utility Commission’s Reliability Standards Working Group, Honolulu, HI, September 2011.

- Griffin, James P., “Lessons Learned in Hawaii’s Renewable Energy Integration Studies,” Council of State Government- Western Region Energy and Public Lands Committee, Honolulu, HI, August 2011.
- Griffin, James P., “Lessons Learned in Hawaii’s Renewable Energy Integration Studies,” Northeast Asia Economic Forum Young Leaders Conference, Honolulu, HI, August 2011.
- Griffin, James P., “Maui Smart Grid Project,” Hawaii Clean Energy Initiative Plenary Meeting, Honolulu, HI, April 2011.
- Griffin, James P., “Oahu Wind Integration Study,” Hawaiian Electric Company-Department of Defense Executive Committee Meeting, Honolulu, HI, March 2011.
- Griffin, James P., “Maui Smart Grid Project,” NEDO Meeting for Solicitation to Japanese Industry on Hawaii-Okinawa Initiative Smart Grid Project, Tokyo, Japan, February 2011.
- Griffin, James P., “Maui Smart Grid Project,” Japanese Ministry of Economy, Trade, and Industry (METI) Industry Trade Group visit to Maui, Kahului, HI, January 2011.
- Griffin, James P., “Maui Smart Grid Project, Visiting Executives from Northeast China Electric Power Corporation, Honolulu, HI, November 2010.
- Griffin, James P., “Maui Smart Grid Project,” NEDO Hawaii-Okinawa Initiative Smart Grid Project Scoping Tour, Honolulu, HI, October 2010.
- Griffin, James P., “HNEI’s Grid Integration Analysis and Maui Smart Grid Project,” Presentation to the Hawaii-Okinawa Initiative Task Force, Honolulu, HI, September 2010.
- Griffin, James P. and Terrence Surles, “Overview of Maui Smart Grid Demonstration Project,” Presentation to HCEI Working Group on Electricity, Honolulu, HI, April 2009.
- Griffin, James P. and Terrence Surles, “Update on Big Island Roadmapping Study and Scenario Analysis,” Presentation to HCEI Working Group on Electricity, Honolulu, HI, April 2009.

### **GRANTS AWARDED**

Date - Proposal submitted October 2012 (awarded in November 2012)

Funding Agency – National Association of Regulatory Commissioners

Amount proposed - \$80,000

Title – Review of Hawaii’s Renewable Energy Procurement Policies

Date - Proposal submitted June 2011 (awarded in September 2011)

Funding Agency – U.S. Department of Energy

Amount proposed - \$6.9 million (\$6.1 awarded)

Title – Development and Demonstration of Smart Grid Inverters for High-Penetration PV Applications

**HONORS/AWARDS**

Society for Risk Analysis, Paper of the Year Award, 2008.

RAND Corporation, Team Player Award, 2008.

Anne and James Rothenberg Dissertation Award, Pardee RAND Graduate School, 2004.

National Science Foundation (NSF) Integrated Graduate Education and Research Traineeship (IGERT), University of California at Santa Barbara, 2002.

Doris Duke Foundation Conservation Fellowship, Duke University, 1999.

Graves Prize in Political Economy, Williams College, 1997.

Scholar-Athlete Award, Williams College, 1996, 1997.