

Hawai'i Natural Energy Institute
University of Hawai'i at Manoa



Jennifer M. Potter, M.S.
Hawai'i Natural Energy Institute (HNEI)

EDUCATION

M.S. in Public Policy and Management, Carnegie Mellon University. May [REDACTED].

B.A. in International Studies and Economics, Southern Oregon University. May [REDACTED].

RESEARCH AND WORK EXPERIENCE

Hawai'i Natural Energy Institute

11/2017-Present

Assistant Specialist

Grid Integration Group

Honolulu, HI

Responsibilities and deliverables:

- Project lead on the Hawaii PV+VPP Demonstration Project in Maui which will demonstrate and assess the technology application, the prioritization of alternative use cases based on stakeholder interests and functional/economic trade-offs in VPP dispatch (e.g., customer versus utility grid benefits), and quantify the business value proposition of combined BESS+PV resources
- Technical researcher on Hawai'i's Pathways to an Open Grid project that forecasts potential DER adoption scenarios and will assess location-specific net benefits of distributed energy resources on O'ahu's distribution grid
- Researcher of distribution and transmission grid services, demand response, and distributed energy resources

Lawrence Berkeley National Laboratory (LBNL)

4/2015- Present

Senior Scientific Engineering Associate

Energy Markets and Policy Group

Berkeley, CA

Responsibilities and deliverables:

- Project lead on the economic and market potential sections of the California Demand Response Potential Study commissioned by the California Public Utilities Commission. Research included evaluating bulk power system operations and services, including contingency events, operating reserves, and ancillary services for energy system resiliency
- Researcher and data scientist for economic and market potential analytical frameworks, data collection and analyses for demand response programs, markets, and technologies
- Technical assistant to state and federal policy-makers on demand side energy management related topics, such as pilot design and implementation, time based pricing programs and ratemaking, demand response enabling technologies, and the role for demand side management in providing bulk power system services and energy resiliency
- Co-Principal Investigator, researcher and author of demand response technical papers for the Department of Energy

Sacramento Municipal Utility District (SMUD)
Enterprise Performance Data Manager
Budget and Enterprise Performance Business Unit
Sacramento, CA

9/2014- 3/2015

Responsibilities and deliverables:

Responsible for SMUD's Data Governance Strategy and an Enterprise Wide Data Analytics Initiative, which includes integration and restructuring legacy systems and establishing new processes for data management.

Tasked with defining and recommending a data governance plan which includes:

- Establishing enterprise-wide data definitions,
- Identifying strategies for data collection and retention processes,
- Creating official data-of-record warehouses for reporting,
- Identifying resource needs and organizational changes at SMUD for new roles of data steward and support staff throughout the organization, and
- Evaluating software/technology solutions that improve the flow of information throughout the organization to improve data analytics for data-driven decision making.

Sacramento Municipal Utility District
Principal Market Analyst
Resource Planning and Pricing Business Unit
Sacramento, CA

1/2014- 9/2014

Responsibilities and deliverables:

- Project manager for SMUD's SmartPricing Options pilot - continued management of pilot through final evaluation phase, project transition to operations, and reporting of results. Represented SMUD and provided testimony and presentations of pilot results, project implementation lessons learned and best practices at numerous industry conferences and regulatory hearings across the country and internationally
- Analyst for the annual forecast of electricity retail load requirements for the electric utility. This includes analysis of large data sets, database management, data hygiene, analysis and reporting for forecast of projected retail electric energy sales and load demands
- Project Manager for the 2015 electric rate process of a new residential default Time-of-Use rate. CORE team lead for rate process which coordinates between SMUD's business units and Steering Committee for future rate actions
- Data Mining Analyst:
 - Conduct and build data extractions and queries for projects, conduct analysis of customer information and program information, create models for program analysis
 - Complete statistical, financial and operational gap/risk analyses, summarize program data and metrics
 - Conduct primary and secondary research and analysis with numerous universities and research organizations

Sacramento Municipal Utility District
Project Manager II
SmartSacramento Smart Grid Business Unit
Sacramento, CA

11/2011- 7/2014

Planned, implemented, and managed SMUD's Smart Grid Consumer Behavior Study, known as the SmartPricing Options pilot, a time-variant pricing trial that examined customer acceptance and energy consumption behavior changes of residential customers that were offered and enrolled in different time-variant electricity tariffs.

The study was part of the successful SmartSacramento Smart Grid Project, a \$308 million dollar American Recovery and Reinvestment Act grant project funded by the US Department of Energy.

The SmartPricing Options pilot is considered the most accurate and insightful pricing pilot conducted in the electric industry to date as a result of the outstanding planning and implementation of three complex quasi- experimental research designs and seven different treatment groups in a dynamic pricing pilot with smart grid enabled technology.

Responsibilities and deliverables:

- Implemented SMUD's pilot which included marketing and recruitment of over 10,000 residential customers into pilot within seven months for a two-year pilot of time-based electricity rates for a sample of SMUD's residential customers
- Coordinated the work flow for over 100 SMUD staff (matrixed teams) and outside professional service experts (consultants) that have worked on the project
- Coordinated technological implementation and integration of enabling technologies and time-based rates into legacy and new IT systems
- Authored and released over six formal Request for Proposals for professional services and capital procurements
- Managed the \$13 million pilot budget for two-years, reporting weekly and monthly progress. The project closed on time and under budget
- Planned, scheduled, deployed, and managed customer care/support for approximately 4,500 Home Area Network (HAN) electricity use display units in residential homes
- Collected, managed, and reported load and customer demographic data to the DOE and Lawrence Berkeley National Laboratory
- Led the development and deployment of customer surveys
- Supervised full-time and temporary employees hired for the project that included interviewing, hiring, payroll, etc. of employees.
- Managed over \$5 million in contracts and inventory for capital goods and professional services

Sacramento Municipal Utility District
Demand Side Specialist - Energy Efficiency Program Planner\
Planning and Strategy, Customer Business Unit
Sacramento, CA

2/2011-10/2011

Responsibilities and deliverables:

- Program Planner for Consumer Electronics Program, Appliances Program, and Commercial Express Incentives Program. Responsibilities included:
 - Preparation of program forecasts
 - Coordination of utility, retailer, and industry partnerships
 - Research and validation of new energy efficiency measures
 - Program promotion at community events and through media outreach
 - Preparation of energy efficiency program data for federal and state regulatory reports

- Analyst whose responsibilities included data extractions and queries for projects, analysis of customer and program information, and development of models for program analysis
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City of Roseville- Roseville Electric
Electric Analyst II
Roseville, CA

5/2006 - 2/2011

- Pride of Roseville recipient for Outstanding Work Performance in 2009
 - Advanced Metering Infrastructure Project Manager whose tasks include business case design, project management, vendor and consultant networking, meet project deadlines, present briefings to stakeholders
 - Principal Forecaster of energy, sales, and revenue whose responsibilities include data extractions, market research, statistical modeling, preparing reports, presentations to stakeholders
 - MV-90 Operator whose responsibilities include remote interrogation of meters, load research software, interval load data editing (8760s), database maintenance, and software upgrades and installation
 - Load researcher whose duties include population sample design, re-stratification, route assignment, downloading hand-held readers using MVRS, annual publication of the customer sector studies
 - Business Analyst whose responsibilities included:
 - Evaluation legislation and compliance strategies
 - Analysis and organization of billing and statistical data into user-friendly databases
 - Development of queries and reports for regulatory reporting
 - Cost-benefit analysis for City and Utility projects
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Great Lakes Behavioral Research Institute
Intern to Allegheny County Department of Human Services
Office of Information Management
Pittsburgh, PA

5/2005-8/2005

- Conducted research for program evaluation of Continuum of Care (CoC) providers in Allegheny County
- Created assessment templates from Homeless Management Information System (HMIS) resulting in provider evaluation tool and a hard-copy of assessment for County use
- Developed feasible client-based outcomes, indicators, and data elements from HMIS application for program evaluation
- Created implementation plan for CoC system and provider program evaluation
- Developed provider survey on HMIS application to assess end-user needs for training
- Created municipality profiles for Allegheny County website

REPORTS

- Potter, Jennifer, Elizabeth Stuart, and Peter Cappers. "Barriers and Opportunities to Broader Adoption of Integrated Demand Side Management at Electric Utilities: A Scoping Study" LBNL-2001110, February 2018
- Potter, Jennifer and Peter Cappers. "Demand Response Advanced Controls Framework and Assessment of Enabling Technology Costs Project" LBNL-2001044, August 2017
- McLeod, Doug, Jennifer Potter, Christine Holland. "Assessment of an Initial Structure for Hawaii Electricity Reliability Administrator" Prepared for the County of Maui, Energy Commissioner. August 2017

- Potter, Jennifer, Jeff Deason, Lisa Schwartz. “Adopting Energy-Efficient Technologies for Street Lighting: Overcoming Challenges for Utilities” Prepared for the Better Buildings, DOE. 2017
- Alstone, Peter, Jennifer Potter, Mary Ann Piette, Peter Schwartz, Michael A. Berger, Laurel N. Dunn, Sarah J. Smith, Michael D. Sohn, Arian Aghajanzadeh, Sofia Stensson, Julia Szinai. “2025 California Demand Response Potential Study Final Report Charting California’s Demand Response Future” Prepared for the California Public Utilities Commission, March 2017
- Alstone, Peter, Jennifer Potter, Mary Ann Piette, Peter Schwartz, Michael A. Berger, Laurel N. Dunn, Sarah J. Smith, Michael D. Sohn, Arian Aghajanzadeh, Sofia Stensson, Julia Szinai. “2015 California Demand Response Potential Study Phase I Report Update and DR Futures Model User Manual Charting California’s Demand Response Future” California Public Utilities Commission, August 2016
- Alstone, Peter, Jennifer Potter, Mary Ann Piette, Peter Schwartz, Michael A. Berger, Laurel N. Dunn, Sarah J. Smith, Michael D. Sohn, Arian Aghajanzadeh, Sofia Stensson, Julia Szinai. “2015 California Demand Response Potential Study Interim Report Charting California’s Demand Response Future” Prepared for the California Public Utilities Commission, April 2016
- Cappers, Peter, Jason MacDonald, Janie Page, Jennifer Potter, Emma Stewart. “Future Opportunities and Challenges with Using Demand Response as a Resource in Distribution System Operations and Planning” LBNL-1003951. Lawrence Berkeley National Laboratory, January 2016
- Potter, Jennifer, Stephen George, Lupe Jimenez. “SmartPricing Options Final Evaluation Report” Sacramento Municipal Utility District. Prepared for the Department of Energy. September 2014
- Potter, Jennifer, Stephen George, Lupe Jimenez. “SmartPricing Options Interim Evaluation Report” Sacramento Municipal Utility District. Prepared for the Department of Energy. September 2013

SELECTED PRESENTATIONS

- Presentation: “Barriers and Opportunities to Broader Adoption of Integrated Demand Side Management at Electric Utilities” LBNL and US DOE, March 2018
- Presentation: “Do Zero Net Energy and Grid Harmonization Strategies Make Sense for Hawaii?”, EUCI Hawaii Power Summit, November 2017
- Presentation: “Integrated Demand Side Management: Opportunities and Barriers for Advancements”, 36th Peak Load Management Association Conference, Cambridge, MA. November 2017
- Presentation: “Demand Response Advanced Controls: Assessment of Enabling Technology Costs”, 36th Peak Load Management Association Conference, Cambridge, MA. November 2017
- Presentation: “Demand Response Advanced Controls Framework and Assessment of Enabling Technology Costs Project” LBNL September 12, 2017
- Presentation: “Integrated Demand Side Management: Effective Strategies for Engaging Customers” Hawaii VERGE Conference June 2017
- Technical Assistance Webinar Presentation to Massachusetts Department of Energy Resources (DOER) Peak Demand Reduction Subcommittee, “Applying the results from the 2025 CA Demand Response Potential Study to Massachusetts” May 2017
- Presentation: Retail DR Markets, Department of Energy & Lawrence Berkeley National Lab Monthly EM&V Webinar Series April 2017
- Presentation: Public Workshop of New DR Frameworks, California Public Utilities Commission April 2017

- Presentation: DR Enabling Technologies and Open Standards, Northeast Asia Economic Forum, Hawaii State Office of Energy April 2017
- Panelist “California’s Demand Response Potential Study, Phase 2 Results” Peak Load Management Alliance Webinar January 26, 2017
- Public Workshop on California’s Demand Response Potential Study. California Public Utilities Commission November 2016
- Presentation Chinese State Grid Delegation “California’s Demand Response Potential Study” Shanghai and Nanjing, China October 2016
- Presentation “Women in Demand Management: The Business for Distributed Energy Resources” PLMA Webinar October 20, 2016
- Presentation “2015 CA DR Potential Study Results” Northwest DR Symposium, SmartGrid NW Seattle, WA September 28, 2016
- Presentation “Beyond Capacity: CA DR Potential Study” & “Consumer Technologies Panelist” National Town Meeting on Demand Response and Smart Grid Washington DC July 2016
- Panelist “What’s Next in DR: Innovative Research- CA Demand Response Potential Study” Peak Load Management Alliance Spring Conference San Francisco April 2016
- Presentation “Studying the Smarter Consumer” Electric Power Research Institute and US DOE Charlotte, NC October 24, 2014
- Presentation “SMUD’s Pricing Study” California Energy Commission Demand Analysis Working Group San Francisco October 7, 2014
- Presentation “What Do Customers Really Think About Time-Based Pricing? –Lessons from SMUD’s Smart Pricing Options Pilot” National Town Meeting on Demand Response & Smart Grid, Washington DC May 21, 2014
- Presentation “Implementation in USA - Smart Sacramento, Sacramento Municipal Utility District” 4th Smart Communications & Technology Forum Warsaw, Poland September 18, 2014
- Presentation “Smart Meter Enabled Dynamic Pricing and Research: SMUD’s SmartPricing Options Pilot” UCLA’s Smart Grid Energy Research Center Demand Response Forum, Los Angeles January 9, 2014
- Presentation “Looking Ahead: The Customer Engagement Platform” CEE Industry Partners, September 18, 2013
- Panelist “More than Smart: Making the Grid More Transparent, Dynamic, and Resilient” Office of Governor Jerry Brown, Palo Alto, September 10, 2013
- Presentation “Connected Technologies and Behavioral Approaches in Efficiency Programs” Behavior, Energy & Climate Change Conference, Sacramento, November 14, 2012

AWARDS

- Southern Oregon University Outstanding Female Graduate in International Studies June 2003
- American Association of University Women Outstanding Graduate in International Studies and Political Science, Southern Oregon University June 2003
- Phi Alpha Theta- National History Honors Society January 2003
- Carnegie Mellon University- Graduate with Distinction June 2006
- Fellow, United States Presidential Management Fellowship Program June, 2006
- Pride of Roseville Award Recipient for Outstanding Work Performance, City of Roseville, Roseville Electric May 2009
- Sacramento Municipal Utility District’s Outstanding Work Performance September 2014
- Lawrence Berkeley National Laboratory Spot Recognition Award for Excellence June 2016