

Mark B. Glick

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Education

Master of Science, Public Management and Policy; Carnegie-Mellon University, 1986

Bachelor of Arts, Mathematics; Lamar University, 1983

Professional Experience

1/17/23 to Present

Chief Energy Officer

Hawai'i State Energy Office

Appointed by Governor Josh Green, pursuant to HRS §196-72 to provide renewable energy, energy efficiency, energy resiliency, and clean transportation project deployment facilitation to assist private sector project completion and engage the private sector to help lead efforts to achieve Hawai'i's clean energy initiative renewable energy and clean transportation goals, among other duties.

12/16/16 to 1/16/23

Specialist on Energy Policy & Innovation

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

Tenured faculty, leads HNEI's energy policy practice, develops and manages programs focused on design and optimization of energy transition policy and innovation-based economic growth in Hawai'i and the Asia Pacific region. Formed an international consortium to build and operate a \$4.1 million advanced microgrid and served as Regional Partner of the national Energy Transition Initiative Partnership Program. On leave of absence as of 1/17/23 to accept gubernatorial appointment to serve as the State's Chief Energy Officer.

10/14/11 to 12/15/16

Administrator, Hawai'i State Energy Office

Department of Business, Economic Development, and Tourism

Selected highlights of the five-year tenure leading Hawai'i's clean energy transition: 1) Managed \$32 million in projects and expenditures under the American Recovery and Investment Act (ARRA); 2) Established the \$150 million GEMS green bank and served as Vice Chair of the Hawai'i Green Infrastructure Agency overseeing GEMS; and 3) Directed more than \$2 million in technical assistance to State agencies and businesses that contributed to Hawai'i leading the nation for five consecutive years in the per capita value of energy savings performance contracts.

7/23/10 to 10/14/11

Energy Project Manager and Senior Advisor

Hawai'i State Energy Office, DBEDT

Managed \$9.59 million in American Recovery and Reinvestment Act-funded projects to increase the number of renewable energy and energy efficiency installations in Hawai'i and created the GreenSun Hawai'i low-interest loan program with broad participation by Hawai'i financial institutions and credit unions.

8/16/05 to 3/15/10

Director of Economic Development

Office of Hawaiian Affairs (OHA), Honolulu, Hawai'i

Developed and managed business development, financial, grant, and training & technical assistance programs to improve the lives of native Hawaiians. Primary accomplishments included restructuring the \$28 million Native Hawaiian Revolving Loan Fund program, overseeing the formation of the Hawai'i Procurement Technical Assistance Center, and managing the Consumer Micro Loan and the Consumer Based Economic Development (CBED) Grant programs.

7/21/03 to 8/16/05

Director, Office of Board Services, OHA

Provided oversight to ensure fulfillment of the policies and actions of the Board of Trustees. Managed agency facilities on all Hawaiian islands and managed contracts for capital grants. Responsible for publishing the Native Hawaiian Data Book.

May 1996 to July 2003

President, GANA INC., Austin, TX

Co-founded and led a business systems integration and consulting firm dedicated to establishing alternative fuel transportation, including pioneering efforts in the marine environment. Served the U.S. Department of Energy, the Gas Research Institute, Keyspan Energy Delivery, Pacific Gas & Electric and the New York City Department of Transportation on development and deployment of clean fuel and emissions reduction projects in Boston, San Francisco and New York City. Assisted in passage of California SB-428 creating the San Francisco Bay Water Transit Authority and was a partner with CALSTART, PG&E, and the Gas Research Institute in the planning, design and pre-deployment of the proposed \$2 billion natural gas powered passenger ferry system for the San Francisco Bay area.

March 1994 to May 1996

President, Global Environmental Technologies, Inc., Austin, TX

Served as chief executive of a firm that assembled fuel stations dispensing natural gas vehicular fuel. Negotiated international letters of credit & project financing for major projects. Built and delivered what was at the time the world's three largest containerized CNG refueling stations under contract to the country of Bangladesh.

January 1991 to March 1994

President, 4E Technologies, Inc., Austin, TX and Los Angeles, CA

Co-founded and served as managing partner of a 12-person consulting firm dedicated to cost-effective environmental solutions for air, water and soil. Created the "Texas Commitment" for the Governor of Texas, a successful strategy to maintain operations of a General Motors vehicle assembly plant. Conceived and coordinated the formation of EcoTrans Industries, Inc., an \$8 million joint venture with Southern California Gas Company and PAS Inc. to design, build and sell the first vehicles ever certified by EPA to the Inherently Low Emission Vehicle standard.

October 1987 to January 1991

Executive Assistant to the Commissioner, Texas General Land Office, Austin, TX

Served as senior Advisor to the Texas Land Commissioner, an appointed position to a statewide elected official responsible for managing more than 20 million acres of state-owned lands and waters. Formed consortium of 10 electric and gas utilities and raised \$1.1 million to build CNG GMC Sierra pickup trucks in the first commercial natural gas vehicle rollout by a major auto manufacturer.

June 1977 to August 1984

Assistant Operator, Port Arthur Refinery, Gulf Oil Corporation; Port Arthur, TX

Served as Assistant Operator/Operator of HCU941 hydrocracker unit that employed hydrogen and a platinum catalyst at 1,600 psi and 500-600 degree Celsius heat to produce jet fuel and high octane gasoline at Gulf Oil's largest refinery.

Selected Publications

Mark B. Glick, Eileen Peppard, and Wendy Meguro. "Analysis of Methodology for Scaling Up Building Retrofits: Is There a Role for Virtual Audits?" *Energies*, MDPI, September 17, 2021.

4 Rae-Kyun Kim, Mark B. Glick, Keith R. Olson, and Yun-Su Kim. "MILP-PSO Combined Optimization Algorithm for an Islanded Microgrid Scheduling with Detailed Battery ESS Efficiency Model and Policy Considerations," *Energies*, MDPI, April 13, 2020

Taedong Lee, Mark B. Glick, Jae-Hyup Lee, "Island Energy Transition: Assessing Hawai'i's Multi-level, Policy-driven Approach," *Renewable & Sustainable Energy Reviews*, February 2020

Jae-Won Chang, Gyu-Sub Lee, Hyeon-Jin Moon, Mark B. Glick, Seung-Il Moon "Coordinated Frequency and State-of-Charge Control with Multi-Battery Energy Storage Systems and Diesel Generators in an Isolated Microgrid," *Energies* MDPI 2019, 12(9), 1614

Kotub Uddin, Matthieu Dubarry, Mark B. Glick. "Reconciling Ostensibly Contradictory Studies on Lithium-ion Battery Degradation Due to Vehicle-to-Grid Operation." *Energy Policy*, February 2018

Jenny Heeter, Bethany Speer, Mark B. Glick, "International Best Practices for Implementing and Designing Renewable Portfolio Standard (RPS) Policies," April 16, 2019, *Journal: Web*. @article{osti_1507986, doi:10.2172/1507986. [https:// www.osti.gov/biblio/1507986](https://www.osti.gov/biblio/1507986)

Lori Bird, Bethany Speer, Jenny Heeter, NREL: Mark Glick, Hawai'i Natural Energy Institute. "Preliminary Design of RPS for Vietnam." USAID Vietnam Low Emission Energy Program (V-LEEP), October 2018 Glick, Mark B. Chapter in the book, *Smart Grid Law & Policy (Part 2, Chapter 4)* published by Seoul National University, October 2017

Glick, Mark B.; "*Supporting Hawai'i's Clean Energy Transformation.*" Chapter II of *Perspectives on the Development of Energy and Mineral Resources – Hawai'i, Mongolia and Germany*; Dick Pratt, Editor Mongolia Press. 2016

Farrell, Alex, Mark B. Glick. *Natural Gas as a Transportation Fuel: Energy and Environmental Benefits in Urban Ferry Service*, presented at the Transportation Research Board 2000 Annual Meeting and published in *Transportation Research Records*, 2000

Testimony

U.S. Congress

7/14/15 - Testified as Hawai'i State Energy Administrator before the U.S. Senate Energy and Natural Resources Committee in a hearing on islanded energy systems: energy and infrastructure challenges and opportunities in Alaska, Hawai'i and the U.S. Territories about Hawai'i's energy transformation policies, strategies, and programs. 2/12/14 - Testified as Hawai'i State Energy Administrator before the U.S. Senate Energy Subcommittee hearing on

“Lessons from State Efficiency and Renewable Programs” about suggested actions the federal government could take to support job creation and innovation at the state and local level based on the Hawai‘i experience.

Hawai‘i Legislature (2023) and (2003 – 2016) – Testified before the Hawai‘i Legislature on more than 200 legislative proposals (list available upon request) relating to energy, economic development and the environment as Chief Energy Officer & Administrator of the Hawai‘i State Energy Office, the Office of Hawaiian Affairs, and Sierra Club Hawai‘i Chapter.

Professional & Civic Affiliations

- Board of Directors, Hawai‘i Green Infrastructure Authority (2023 – present; and 2014-2016 (Vice Chair))
- Board of Directors, Washington Place Foundation (2011 – present)
- The National Association of State Energy Official Board of Directors; (2012-2016); Vice Chair (2016); Affiliate Member (2016 – 2022); and Member (2023 – present).
- Vice President, Board of Directors, Malama Learning Center (2020 - present)
- Chair, Hawai‘i Energy Policy Forum (2021-2023), Member (2005-2016)
- Strategic Advisory Board Member, Energy (Elemental) Excelsior (2012-2016)
- Vice President, Board of Directors, Friends of Honouliuli (2008-2015)
- Senior Associate, Urban Harbors Institute, University of Massachusetts Boston (1999-2012)
- Chairman of the Executive Committee, Sierra Club Hawai‘i Chapter (2008-2011)
- Native Hawaiian Revolving Loan Fund Board member (2007-2010)
- Hawai‘i Community Based Economic Development Advisory Council member (2005-2010) • Board of Directors, Secretary, KAHEA: The Hawaiian-Environmental Alliance (2002-2010) • Committee Member, US Coast Guard Alternative Fuels Project Committee (1996-1997)
- Member, Natural Gas Advisory Committee, Texas Air Control Board (1993-1994)
- Member, Federal Fleet Conversion Task Force Working Group on Federal, State and Local Programs and Regulations (1993)
- Member, Natural Gas/Electric Utility Dialogue Group (Coordinated by CONSAD Research Corp. and the US Environmental Protection Agency – 1989-1991)
- Member, Gas Research Institute NGV Technology Project Advisory Group (1989-1991)
- Founding Member, Clean Air Texas (established by the Texas Land Commissioner in 1988)
- Member, Natural Gas Policy Group (Coordinated by the World Resources Institute – 1988)