



Resume | Leadership



Professional Affiliations

American Society of Heating,
Refrigerating, and Air-Conditioning Engineers
(ASHRAE)
Adjunct Faculty, Cal Poly State University, San Luis
Obispo CA
American Solar Energy Society (ASES)
Founding member of the Board of
Directors, Office for Resource Efficiency

Registrations / Certifications

Registered Professional Engineer: Colorado,
California, Oregon
Member National Council of Examiners for
Engineering and Surveying (NCEES)
Registered as both Mechanical and Civil P.E.

Education

Bachelor of Science in Civil Engineering with Honors,
University of California,
Berkeley
Direct Digital Controls, University of Wisconsin
HVAC/Refrigeration Technology, Front Range
Community College
TechComm 101, Society for Technical
Communication

Selected Awards & Accomplishments

Several LEED-registered projects
Awards of excellence and distinction from the Society
for Technical Communication

Contact Info

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San Luis Obispo, CA 93401 USA

David Houghton, P.E., Principal

Principal Dave Houghton brings a unique combination of efficiency research and real-world design experience to Ecos Research. Drawing on three decades of experience in the energy efficiency field, Dave's background includes building science, utility consulting and executive leadership, writing and presenting on energy-related topics, and hands-on experience in building systems engineering. Dave's work at Ecos Research includes emerging technology development and validation, lab and field testing of energy-related innovations, and efforts to make existing buildings run better, such as auditing, commissioning, and data analytics.

Selected Experience and Projects

Adjunct Faculty, Cal Poly San Luis Obispo

Lecturer for CE 475, *Civil Infrastructure and Building Systems* (4.0 WTU). Course covers mechanical and electrical systems for buildings, with a focus on energy use, utility interactions, zero-net-energy buildings, and real-world lessons from three decades of consulting and engineer-of-record experience. Topics include heating and cooling load reduction, HVAC system types, central plants, basic electrical design and calculations, lighting, and controls.

Strategic Basis for Achieving Zero Net Energy Facilities, report to San Diego Gas & Electric (as consultant to Ecova)

Principal investigator and lead author of report that analyzes the potential impacts of ZNE mandates on the utility. Organized and led research team, conducted client workshop, and was responsible for final report that summarized and detailed ZNE considerations, including categories of building types and their challenges, effects on grid operations, and action items for moving forward to address this trend.

Founder, Resource Engineering Group, Inc.

In 1997, Dave founded REG to bring efficiency, sustainability, and simplicity to building engineering. The company grew to ten engineers, registration in over a dozen states, and projects spread across North America, with a focus on engineering excellence, innovative thinking, and clear communication. Dave remains a consultant to REG, which is now owned and operated by the next generation of engineers.

Chairman, Gunnison County Planning Commission, Gunnison CO (2003-2006)

As a member of the 5-person Commission, developed and implemented policies for land use, resource extraction, affordable housing and economic development for the fifth largest county in Colorado.

Member, Board of Directors, Gunnison County Electric Assn, Gunnison CO (1999-2003)

Member of the 7-person board with executive responsibilities for operation and planning of electric distribution utility with approximately 14,000 meters and \$15M annual revenue.

Publications and Reports

- *Blueprint for a Better Battery — Residential Energy Storage Opportunities and Realities* for American Council for an Energy-Efficient Economy Summer Study on Energy Efficiency in Buildings (Aug 2020)
- *Home Battery Storage Systems — A Look into the Market, Their Energy Efficiency and Performance*, for Natural Resources Defense Council (Nov 2017)
- *ENERGY STAR Scoping Report: Electric Grid Efficiency*, Report for U.S. Environmental Protection Agency (Apr 2016)
- *ENERGY STAR Scoping Report: Home Battery Systems*, Report for U.S. Environmental Protection Agency (Apr 2016)
- *Clothing Wear and Tear of Heat Pump Versus Electric Resistance Clothes Dryers*, for Northwest Energy Efficiency Alliance (Mar 2016)