



Erik Kolderup PE, LEED AP, BEMP

Mr. Kolderup provides technical consulting services, focusing on the sustainable, energy efficient design and construction of commercial and institutional buildings. He identifies and evaluates design alternatives to optimize the integrated performance of a building's systems. He employs computer simulation tools and other analysis methods to assist building designers in planning, designing, and specifying high performance systems. His experience covers envelope, lighting, daylighting, natural ventilation, and HVAC systems. His special interest is developing integrated design strategies for natural ventilation and daylighting. He is also a consulting faculty member at Stanford University teaching a class on energy efficient building design.

Mr. Kolderup is based in San Francisco, California and has provided sustainability and energy consulting services since 1990, when he joined Eley Associates as an energy engineer. He became an owner in 1994 and served as vice president until the firm's merger with Architectural Energy Corporation in 2004. After three years as Associate Principal, sharing management of AEC's San Francisco office, Mr. Kolderup started Kolderup Consulting in 2007.

Professional Experience

Kolderup Consulting, Principal, 2007 – present

Stanford University, Lecturer, Civil and Environmental Engineering, 2008 – present
CEE 156/256 Building Systems

Architectural Energy Corporation, Associate Principal, 2004 – 2007

Eley Associates, Vice President, 1994 – 2004

Eley Associates, Senior Engineer, 1990 – 1994

Education

Stanford University, MS Industrial Engineering, 1990

Stanford University, MS Electrical Engineering, 1986

Stanford University, BS Electrical Engineering, 1985

Registration

California Electrical Engineer, #E14826

LEED Accredited Professional

ASHRAE Building Energy Modeling Professional

Affiliations

Board of Directors, Vice President, International Building Performance Simulation Association (IBPSA-USA)

ASHRAE Golden Gate Chapter, President 2015-2016

ASHRAE Standard 209P, Voting Member

ASHRAE TC4.7 Energy Calculations, Handbook Subcommittee Chair, Voting Member

US Green Building Council, Member

Design Consulting Experience

Mr. Kolderup's experience includes life-cycle cost analysis, LEED energy calculations, energy code compliance, and utility incentive calculations. He has provided design consulting services for hundreds of buildings, including:

- Optisolar Inc, PV Manufacturing Facility, 1,000,000 ft², Sacramento, CA
- Cal Poly San Luis Obispo, Poly Canyon Village Dormitories, 822,000 ft²
- CalSTRS Headquarters Office Building, 400,000 ft², West Sacramento, CA
- East Contra Costa County Courthouse, 70,000 ft², Pittsburgh, CA
- Ebay Building 17 Office Building, 190,000 ft², San Jose, CA
- Lincoln High School Bungalow Replacement Building, 18,000 ft², San Francisco, CA
- Mills Peninsula Hospital, 360,000 ft², Burlingame, CA
- San Francisco International Airport West Field Cargo Building, 88,000 ft², San Francisco, CA
- Oakland Airport Terminal 2 Extension, Oakland, CA
- Georgina Blach Middle School, Los Altos, CA
- "Casa Nueva" Santa Barbara County Office Building, Santa Barbara, CA
- SFPUC Emergency Operations Center, 15,000 ft², San Francisco, CA
- Grass Valley Animal Shelter, 7,000 ft², Grass Valley, CA
- Sustainable Design Standards, San Francisco Unified School District

Training Experience

Mr. Kolderup has extensive experience developing and presenting training for building industry professionals and public agency employees on topics including energy efficient design, energy code compliance, simulation software usage, LEED energy calculations, and commissioning. His training programs include:

- Stanford University – Lecturer, Civil & Environmental Engineering 156/256 *Building Systems*, Spring 2008-2012, Winter 2013-2015.
- Kuwait Energy Modeling Training – Lawrence Berkeley National Lab & Kuwait Ministry of Energy and Water. 2016.
- Building Energy Modeling Workshops – International Building Performance Simulation Association. 2010 – 2016.
- Hawaii Energy Code Training, 2012 – State of Hawaii
- High Performance School Design – Collaborative for High Performance Schools (CHPS)
- Exceeding Title 24 for Offices, Schools, Laboratories, and Retail Buildings – PG&E
- VisualDOE energy simulation software and LEED energy performance calculations – Eley Associates and Architectural Energy Corporation
- Commissioning for Small Buildings, California Department of General Services – California Energy Commission

Energy Standards Project Experience

Mr. Kolderup has provided a wide range of energy code development and support services since 1990 for the States of California, Hawaii and New Mexico and has supported the development of ASHRAE Standard 90.1

- Energy Code Compliance Study. State of Hawaii. 1998 & 2015
- Title 24 Nonresidential ACM procedures for select HVAC equipment in EnergyPlus, LBNL. 2014
- Hawaii Energy Code Training and Technical Support. State of Hawaii. 2012
- Contributor to ASHRAE Standard 90.1-2010 User's Manual. 2010
- Training. Title 24-2008 Mechanical Compliance. PG&E. 2009-2010
- Training. Exceeding Title 24 for Offices, Schools, Laboratories, and Retail Buildings – PG&E. 2004
- Hawaii Model Energy Code, development, training, compliance manual and compliance software. State of Hawaii. 1990-2004
- Hawaii Model Energy Code Application Manual. State of Hawaii. 1993
- Title 24 Codes and Standards Enhancement Studies. PG&E
- ASHRAE Standard 90.1-1999 fenestration standard development

Select Publications

Hawaii Commercial Building Guidelines for Energy Efficiency. State of Hawaii. 360 pages. 2004
e-News, monthly newsletter for Energy Design Resources. 2006-2007.

Hawaii High Performance Schools Guideline. State of Hawaii. 83 pages. March 31, 2005.

Best Practices Manual, Volume 2 Design. HVAC chapter. Collaborative for High Performance Schools. 2002 and 2006.

Best Practices Manual, Volume 5 Maintenance and Operations. HVAC chapter. Collaborative for High Performance Schools. 2004.

Advanced Variable Air Volume System Design Guide. California Energy Commission. 228 pages. 2002.

Hawaii Homeowner's Guide to Comfort, Efficiency and Value. State of Hawaii. 40 pages. 2002.

High Performance Hawaii Classroom Prototypes. State of Hawaii. 8 pages. 2005

Reference Specifications for Energy and Resource Efficiency. California Energy Commission. 2000.

Hawaii Model Energy Code Application Manual. State of Hawaii. 300 pages. 1993.

Advanced Building Reference Guide. New Buildings Institute. 312 pages. 2005