

Brent Eubanks LEED AP, E.I.T

k9s16rc02@sneakemail.com

Objective

I wish to accelerate the transition to a sustainable civilization by using my mechanical engineering and permaculture design skills to create building systems that are efficient and – ultimately – regenerative.

Education and Awards

Bachelor of Science, Mechanical Engineering	<i>California Institute of Technology (Caltech)</i>	1995
Certified Permaculture Designer	<i>Occidental Arts and Ecology Center</i>	2004
LEED® Accredited Professional	<i>U.S. Green Building Council</i>	2004
Winner, Greenbuild Design Slam	<i>Greenbuild Conference and Expo</i>	2006
Fundamentals of Engineering Exam (EIT)	<i>National Council of Examiners for Engineering & Surveying</i>	2007

Over 200 hours of continuing education, including HVAC Equipment (ME x470) and HVAC Energy Management Systems (ME x473) at UC Berkeley. Also Daylighting Principles, Control Sequence Design, Critical Control Sensors, Solar Thermal and Radiant Heating Systems, Automated Demand Response Strategies, Combined Heat and Power Systems, Sustainable Site Planning and Landscape Design, Energy Auditing, PV Advanced Technical Training, Business Plan Preparation, Finance and Accounting Principles.

Experience

Engineering Design *Taylor Engineering, Alameda, CA* **2009 – Present**

- Engineering design, energy modeling and commissioning of innovative high-efficiency building mechanical systems

Energy Efficiency Engineering *Cogent Energy, Concord, CA* **2007 – 2009**

- Managed and performed commissioning of existing and new commercial and institutional buildings and campuses
- Reviewed new building designs for energy efficiency and sustainability opportunities, and presented results to clients
- Performed field inspections and testing, analyzed trend data, identified energy conservation measures, developed and performed functional tests, estimated energy savings using custom-built spreadsheet models, wrote and presented reports to clients

Engineering Design *Stantec Consulting, San Francisco, CA* **2006 – 2007**

- Provided conceptual and analytical design support to green building projects for client architects and building owners
- Used building energy models to estimate heating/cooling loads and energy consumption of new and existing buildings
- Performed tradeoff analyses to identify most financially and environmentally beneficial energy strategies to meet specific goals
- Advised colleagues on renewable energy options for a variety of projects

Engineering & Business Development *Cooperative Community Energy, Sebastopol, CA* **2001 – 2005**

- Worked as a self-directed independent contractor for this nonprofit photovoltaic buyers' cooperative
- Designed, sold, engineered, and managed installation of large PV systems for municipal, school, and commercial applications
- Developed renewable energy and energy efficiency consulting services for developers and commercial/institutional clients
- Wrote Excel/VBA tools to predict PV performance and payback, and trained and supported sales force in use of these tools
- Sole author of proposal for Solar Sebastopol, an award-winning municipal partnership to promote in-town solar installations
- Elected to the Board of Directors in 2005

Permaculture Farming *Sebastopol & Berkeley, CA* **2003 – Present**

- Raised organic berries, apples, and rabbits for local sale as co-proprietor of Kokopelli Farm in Sebastopol
- Restored fallow land and cultivated extensive gardens of annuals, perennials and herbs for personal use, and to observe firsthand the interaction of natural processes within a living system
- Continuing to raise chickens, rabbits, and annual and perennial crops in backyard urban farm in Berkeley

Mechanical Design and Project Management **1995 – 2001**

Designed mechanical products including assembly tooling, test fixtures, and high voltage electrical connectors for several different companies. Responsibilities included establishing project specifications, developing test procedures, and streamlining manufacturing processes. A highlight was two years with the Rotary Rocket Company in Mojave, CA, developing high-pressure rocket engine combustors for this (now defunct) VC-funded space launch startup. I was responsible for engineering development, validating the design with thermal and structural experts, vendor selection, and coordinating prototype hardware fabrication on an extremely tight development schedule. Driven by a growing awareness that we are destroying the basis of our own prosperity, I reprioritized my career in 2001 to focus on sustainability.

Relevant Skills and Abilities

- Possess broad and deep knowledge of renewable energy, green building, and environmentally sound technologies and practices
- Highly skilled at problem definition and creatively incorporating ecological principles and systems into a holistic design solution
- Excellent written and verbal communication skills; able to concisely summarize and explain costs and benefits of different options
- Passionate and articulate in making the case for the necessity and value of sustainable design
- Able to learn new skills, grasp new situations, and understand dynamics of unfamiliar systems very rapidly
- Self-motivated and very organized; can wear many hats
- Adept with eQuest, RadTherm, IES Virtual Environment, SketchUp, Pro/Engineer, AutoCAD, Excel/VBA programming, MS Office