Resume | Leadership

Professional Affiliations

Sustainability Alliance of Southwest Colorado
Adjunct Faculty, Lecturer at Middlebury Institute of International Studies (MIIS)

Education

M.A., Energy & Resource Group, University of California at Berkeley, CA; 1989

B.A., Environmental Studies, Trinity University; San Antonio, TX; 1987

Energy & Environmental Policy Program, University of Oslo, Norway; 1985

Selected Awards & Accomplishments

Champion of Energy Efficiency at the ACEEE 2006 Summer Study

Contact Info

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Durango, CO USA

Chris Calwell, Principal

Chris Calwell is an internationally recognized expert operating at the intersection of the technologies and policies needed to address climate change. Chris digests and synthesizes deeply technical information, extracts the meaning for a broader audience, incorporates the relevant market context, and then conveys a highly visual narrative in a manner that is understandable and actionable by business leaders, policymakers and individual consumers. His areas of technical expertise and experience include:

- energy efficient consumer electronics, appliances, lighting, and power conversion devices
- innovative approaches to utility energy efficiency policy and program design
- zero net energy homes, electric vehicles, energy storage, and renewable energy sources
- climate-related clean technology investing

Selected Experience and Projects

Adjunct Faculty, International Environmental Policy Program, Middlebury Institute for International Studies, Monterey, CA, 2016 to present
Fulbright Specialist, CSIRO, Newcastle, Australia, February to March 2019
Principal, Ecos Research, Durango, CO, March 2015 to present

Accomplishments

- **Zero Net Energy (ZNE) Homes -** Oversaw the design and construction of a state-of-the-art ZNE home in Durango, Colorado.
- **Internal and External AC-DC Power Supplies** - Developed globally accepted standardized test procedures for external and internal power supplies (with EPRI), helped to secure adoption of an ENERGY STAR specification and mandatory efficiency standards for external power supplies in California (identical standards were adopted in six other U.S. states and are now the basis of a DOE rule-making under federal standards); currently supporting development of a Tier II ENERGY STAR specification, conducted an international design competition for efficient power supplies with support from the Power Sources Manufacturers Association.
- **Lighting -** Served as lead author and presenter for state, federal and international general service lighting and reflector lamp standards efforts in California, before the US Department of Energy, and regarding proposed national standards in the U.S., Canada and the EU, identified the sizeable energy efficiency opportunity for incandescent lamps under PG&E CASE project; currently providing analysis of various incandescent lamp phase-out proposals (state, national and international), and more.

RECENT PRESENTATIONS AND PUBLICATIONS

- *Blueprint for a Better Battery*, ACEEE Summer Study on Energy Efficiency in Buildings, with Dave Houghton, August 2020
- *The Promise and Pitfalls of Residential Batteries and Vehicle to Grid Load Shifting Strategies*, presentation to Arizona Public Service, June 2020
- *An Introduction to Residential Energy Storage Systems*, presented on behalf of Sonoma Clean Power, April 2020.
- *Getting to 100% Clean Energy*, community presentations in Durango, CO, November 2019 and April 2020.
- *Residential Battery Systems: Learnings from Down Under and Our Research for ENERGY STAR*, material presented at day-long PG&E continuing education course for interested builders, architects, and solar installers, San Francisco, May 2019, October 2019, and April 2020
- *Draft ENERGY STAR Market & Industry Scoping Report: Home Battery Systems,* prepared for ICF Consulting on behalf of EPA ENERGY STAR, with Dave Houghton, April 2019