



Dr. Malcolm Lewis, PE
Founder/Chairman/CEO
CTG Energetics, Inc.

Dr. Lewis has been active in the design of leading-edge buildings for over 30 years as a consulting engineer specializing in Mechanical, Electrical, and Energy Systems. This started with energy-efficient buildings and solar energy systems in the 1970's, evolved to include intelligent buildings in the 1980's, and now focuses on sustainable design of green buildings. He specializes in integrating innovative technologies into the mainstream of building practice, and he accomplishes this through his professional activities in design, education, and public policy.

He has been the engineer of record for hundreds of commercial, institutional, residential and industrial buildings totaling over 20 million square feet. He is the energy engineer of several completed zero-net energy buildings, and advises clients on zero-net energy and low carbon strategies for buildings and communities. His projects have won numerous awards for energy efficiency, sustainability, and design.

Dr. Lewis has consulted on numerous international projects related to energy efficiency and sustainability, including work in Indonesia, Sri Lanka, and China.

He served on the Board of Directors of the US Green Building Council (1997-2002), is currently a member of the USGBC's LEED Steering Committee and is Chair of the LEED Technical Committee. For ASHRAE, he served on Standard 90.1 (Energy) committee and Technical Committee 2.8 (Sustainability and Energy Resources), as well as the President's Ad Hoc Committee on Sustainability; he was Technical Editor of the Users' Manual for ASHRAE Standard 189.1 (Design of High Performance Green Buildings), which was recently prepared by CTG Energetics under contract to ASHRAE.

Net-Zero Energy Buildings

As new approaches to high-performance building design are being developed, there is significant interest in the concept of "zero net energy" buildings. This lecture will provide an overview of the ways in which buildings can be designed with a zero net annual energy demand on the public electric utility grids. The essential concepts of reducing loads and integrating on-site power production will be discussed, with an emphasis on integrated design processes to achieve high performance most cost-effectively. These concepts will be explored for both single buildings and clusters of buildings in a community context.

If any students or faculty or staff would like to join us for dinner at Hoch Shanahan in the Mitchell Room after the seminar, please email Sydney Torrey early as seating is limited.