

Net-Zero Energy Commercial Building Initiative



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Transforming the Built Environment

- Called for in the Energy Independence and Security Act of 2007
- Initiative that drives activities of DOE's Commercial Buildings Program
- Main components: public-private partnerships created to achieve and promote technology improvement and commercialization of advanced building technologies at an accelerated pace
- Goal is to enable market-ready, net-zero energy commercial buildings no later than 2025 in all climate zones

Informal associations among building owners and operators who want to reduce energy consumption

Current CBEAs:

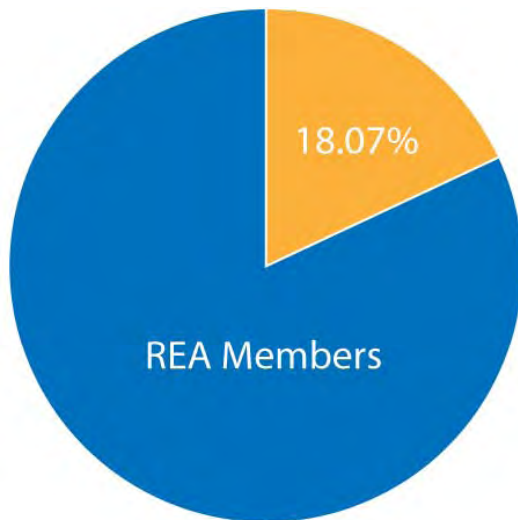
- Retailer Energy Alliance (launched February 2008)
- Commercial Real Estate Energy Alliance (launched April 2009)
- Hospital Energy Alliance (launched April 2009)

Future CBEAs:

- Higher Education Energy Alliance
- State and Local Government Energy Alliance

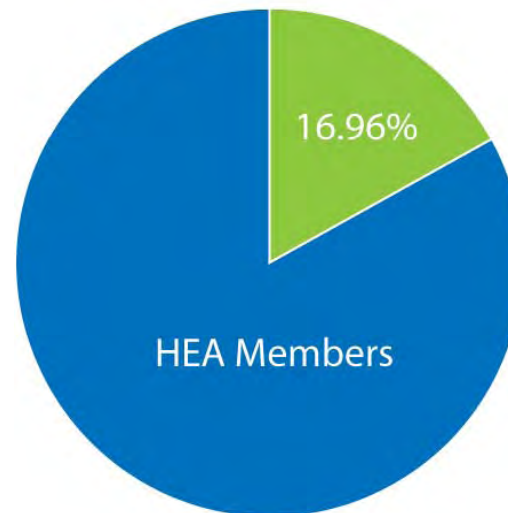
Market Share of Alliance Members

Retailer Energy Alliance



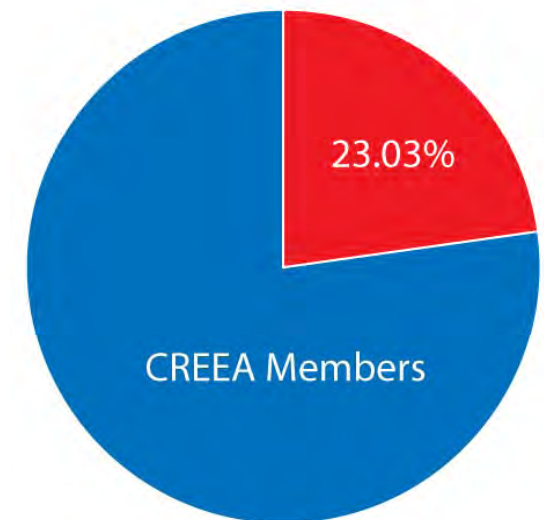
- 40 member companies
- 2.548 billion sq. ft.

Hospital Energy Alliance



- 31 member companies
- 323 million sq. ft.

Commercial Real Estate Energy Alliance



- 44 member companies
- 5.856 billion sq. ft.

- Commercial Technology Solutions
 - Commercial Lighting Solutions (www.lighting-solutions.org)
 - In development:
 - Packaged HVAC Systems Solutions
 - Supermarket Refrigeration Solutions
 - Daylighting Solutions
- Supplier Summits
 - Forge a communication path between commercial building owners and operators and suppliers
 - Summit Topics
 - HVAC
 - Lighting
 - Renewable Energy



- Technology Identification and Screening
 - Nominated, promising energy-efficient technologies are evaluated by DOE and national laboratories.
 - Speeds application of “proven” technologies in commercial buildings
 - Supports identification of suitable technologies for possible Technology Procurements
- Technology Procurements
 - *1st project*: LED Outdoor Area Lighting
 - Pending
 - Rooftop HVAC
 - Parking garage lighting

Commercial Building Partnerships

- DOE national labs teamed with 23 companies to:
 - Build **one new building at 50% less energy** than Standard 90.1
 - Retrofit a **building that uses 30% less energy** than the CBECs baseline or 30% less than the mean of their building portfolio
- Labs provide technical assistance
- Targets going forward - 50% today, 70% in 2012, ZEB in 2015



- The Recovery Act provides funding for another solicitation of Commercial Building Partnerships
- Selecting proposals from companies with detailed plans to do two of the following:
 - Construct a new building that uses 50% less energy than ASHRAE/IESNA Standard 90.1-2004;
 - Retrofit a building that uses 30% less energy than the CBECS baseline or 30% less than the mean of their building portfolio;
 - Upgrade one technology throughout their building portfolio which will result in a 40% to 50% energy reduction as compared to the mean of the portfolio
- ***Know of a potential project?***
commercialbuildings.energy.gov