Net-Zero Energy Commercial Building Initiative

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**Transforming the Built Environment**

- 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.
Key Alliance Activities

• 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
Key Alliance Activities (cont’d)

- **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