Commercial Building Energy Alliances: Making the Business Case for Energy Efficiency

Investing in energy efficiency can dramatically reduce operating costs for commercial buildings. Through the U.S. Department of Energy's (DOE) Commercial Building Energy Alliances (CBEAs), building owners and operators are working with the national laboratories to identify, document, and replicate attractive energy-efficiency strategies.

In today's challenging economy, businesses are looking for cost-saving measures to improve energy efficiency in their commercial facilities. A large number of businesses find that energy is their second- or third-largest—and most controllable—operating cost, giving them compelling reason to take action.

New and emerging practices and technologies can be used to construct commercial buildings that use 25 to 50 percent less energy than their traditional counterparts, often with highly attractive returns on investment. Similar technologies can save 10 to 20 percent of energy use in existing commercial buildings. That is why DOE—and members of the CBEAs—maintain a dual focus on reducing energy consumption in both new construction and existing building stock.

The benefits of efficiency don't stop with cost reduction. Energy-efficiency investments can improve equipment reliability, reduce outages, improve disaster mitigation capabilities, and create more comfortable, productive, and healthy environments for employees and customers. They are also an expeditious and cost-effective strategy for meeting carbon-reduction goals.

Despite the benefits, many building owners, operators, and tenants are frustrated by the lack of rigorous business-case data to guide intelligent decisions about efficiency investments. Frequently asked questions include:

- How do we set appropriate energy-performance goals for our facilities?
- How much will a particular strategy cost us to implement?
- What will be the actual ROI versus the modeled savings?
- Who else has done it and with what results?
- How do we evaluate competing technology options?

Developing the answers—and strengthening the business case for energy efficiency—is the driving purpose of DOE's CBEAs.

By the Numbers

Increasing the efficiency of existing and new commercial buildings is among the most effective and economically sound strategies to reduce national energy consumption and carbon emissions.

- **5.3 MILLION:** Number of commercial buildings nationwide
- **18.5 QUADRILLION:** British thermal units (Btu) consumed by these buildings annually
- **19 PERCENT:** Proportion of the United States' energy-related carbon dioxide emissions attributed to the commercial building sector
- **30 PERCENT:** Amount of cost-effective savings attainable through energy-efficient retrofits within the business models of most companies
- **$16.8 BILLION:** How much money the American Recovery and Reinvestment Act (Recovery Act) of 2009 set aside for energy efficiency and renewable energy

Many loans, grants, and tax credits are available to businesses that reduce their carbon footprint by investing in technologies to improve energy efficiency. To achieve these improvements, CBEA members have access to the newest tools and equipment before they are widely available in the marketplace.

Commercial Building Energy Alliances

CBEAs are informal industry-led associations of building owners and operators who work with DOE and the national laboratories to speed the development and adoption of energy-efficient, green building technologies. These alliances are a core element of DOE's Commercial Building Initiative (CBI), which was launched in August 2008 to meet the charge of the Energy Independence and Security Act of 2007. To date, DOE has created three CBEAs within specific commercial building sectors: the Retailer Energy Alliance, Commercial Real Estate Energy Alliance, and Hospital Energy Alliance.

Benefits of Alliance Membership

CBEA members are positioned to drive significant changes in the commercial buildings industry. Alliance members are often the first in the nation to field test and demonstrate DOE-sponsored research and analysis and help to define areas of future research and development.

Members benefit from such activities as:

- **Supplier Summits**—Alliance members, in conjunction with DOE, host supplier summits where owners and operators of new and existing buildings consult with suppliers about their most pressing energy-efficiency needs. These summits attract a large number of suppliers who, while there, learn more about DOE's initiatives, the barriers to purchasing energy-efficiency equipment (e.g., short warranties, inconclusive evidence on product performance and life cycle, and upfront cost differentials), and the market need for energy-efficient technologies. Supplier summits have focused on building envelope components; heating, ventilation, and air conditioning (HVAC); lighting and controls; and renewable energy.
- **Technology Identification and Screening**—DOE and national laboratories evaluate promising energy-efficient technologies that are often nominated by alliance members. This process speeds the application of proven technologies in commercial buildings and supports identification of suitable technologies for possible technology specifications.
- **Technology Specifications**—Under this process, alliance members communicate their performance expectations to suppliers, resulting in the ability to purchase equipment that is more efficient and better suited to the ir facilities than traditional technology.

For more information about the Commercial Building Energy Alliances and how organizations can join the alliances, visit commercialbuildings.energy.gov/alliances.

A Strong Energy Portfolio for a Strong America

Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.

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Commercial Building Initiative

September 2010

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