



National Accounts

National Accounts Teams Tackle Unprecedented Energy Savings

National Accounts Companies

- Bank of America
- Best Buy
- CB Richard Ellis
- Forest City Enterprises
- Hilton Hotels Corporation
- Hines
- InterContinental Hotels Group
- JCPenney
- John Deere
- Kohl's
- Macy's
- The Opus Group
- PNC Financial Services
- ProLogis
- Regency Centers
- Ryan Companies U.S.
- Simon Property Group
- SUPERVALU
- Target
- Tishman Speyer
- Toyota
- The Westfield Group
- Whole Foods Market

Teams of companies from the private sector, working with the Department of Energy's national laboratories, will conduct cost-shared research, development, and deployment and construct or retrofit buildings that achieve significant, unprecedented energy savings.

As part of its effort to advance the development of market-ready, cost-neutral, net-zero energy commercial buildings,¹ the U.S. Department of Energy (DOE) is fostering collaborations between its national laboratories and the private sector that will result in significant, unprecedented energy savings. These National Accounts teams are a critical component of the Net-Zero Energy Commercial Building Initiative (CBI) that aims to achieve marketable net-zero energy commercial buildings by 2025.

Two of DOE's national labs, the National Renewable Energy Laboratory (NREL) and the Pacific Northwest National Laboratory (PNNL), are working with 23 National Accounts Companies (NACs)—nine retailers, thirteen real estate management companies, and one distribution facility provider—to create, test, and validate design concepts that will move the industry toward net-zero energy commercial buildings. Each NAC has agreed to construct a new building that uses 50 percent less energy than ASHRAE/IESNA Standard 90.1-2004 and retrofit a building to achieve 30 percent energy savings.

A fundamental premise behind the National Accounts is that reducing energy consumption, and therefore lowering operating expenses, makes good business sense. However, to make a full and compelling business case for participation, energy-saving design and performance verification protocols must integrate smoothly into building and renovation processes. Toward that end, PNNL and NREL will actively solicit feedback from participants about the impacts of these practices. They will then integrate the findings into their reports and other documentation.

The National Accounts, created in the same target markets as the Commercial Building Energy Alliances

¹ Net-zero energy commercial buildings are grid-integrated buildings capable of generating as much energy as they consume through advanced efficiency technologies and on-site generation systems such as solar power and geothermal energy.



The assistance NREL researchers provided to the owners of the BigHorn Home Improvement Center in Silverthorne, Colorado, substantially reduced energy usage and costs. For more information, go to www.nrel.gov/docs/fy05osti/34930.pdf.

(CBEAs), will work closely with the CBEAs, sharing information and identifying promising technologies for field testing. CBEAs are informal associations created among building owners and operators who want to reduce energy consumption. CBEAs have been launched in the Retailer, Commercial Real Estate, and Hospital sectors. Members of the National Accounts companies are automatically members of their respective CBEA.

Cost-Sharing

The National Accounts teams operate as a public/private cost-sharing program. DOE expects to contribute \$15 million in the form of technical expertise throughout the 3- to 5-year projects.

Under the arrangement, NACs will cost share 20 percent of the total value of the project in the form of company resources. They will track their participatory expenses and report this information to the national labs. (Note: Capital expenditures for buildings cannot be included.)

How NACs Benefit

Each NAC receives state-of-the-art assistance from the national labs that may include:

- Energy modeling and strategy optimization
- Integrated design processes that incorporate energy efficiency and renewables
- Guidance procuring materials and equipment and assembling design teams
- Energy performance verification of completed projects and documentation of lessons learned
- Low-energy building designs that can be replicated across company portfolios
- Detailed documentation, including business case studies, of the process and results

NACs will continue to benefit from reduced operating expenses after construction is complete. This bottom-line savings will come not only from significant reductions in building energy costs but also from implementation of best practices that can improve equipment reliability, reduce outages, and improve disaster mitigation capabilities.

Evaluation Criteria

Acceptance of building and renovation projects will be based upon the following criteria:

- The building is primarily a retail, warehouse, or office facility.
- Based on preliminary modeling, there is a reasonable expectation that the project will reach the NAC's energy efficiency targets.
- The owners are committed to sharing their data and experiences as they progress toward the targets.
- The project, while typical of the building stock, is not identical to other National Accounts projects.
- The project uses design strategies and energy efficiency measures that are replicable in other commercial buildings from both a technology and business case point of view.

National Accounts Teams: Getting the Job Done

Pre-Design Planning

The national labs work with each NAC to identify potential new construction and renovation projects by benchmarking existing building energy use, analyzing building portfolios, and determining the best energy efficiency strategies for each operating climate. Their objective is to find energy-efficient solutions that meet the NAC's business needs, constraints, and objectives.

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Design

NREL and PNNL assist the NACs in the development of designs for new construction and renovation projects. The labs provide integrated design expertise to ensure that all building components and systems work together to save energy and reduce environmental impact. They also provide detailed energy and cost analyses to confirm that the proposed designs meet both energy-savings targets and cost requirements.

Performance Verification

During the construction process, the national labs and NACs work together to ensure that the energy efficiency measures are installed and functioning correctly. When the building is operating as designed, the labs will measure its energy consumption and determine how its performance compares with the target energy goals.

Reporting

PNNL and NREL prepare case studies, detailed research reports, and an overall assessment that addresses the specific business case for making energy efficiency building improvements. Without disclosing proprietary business information, these pre-approved reports are shared within the NAC's respective industries.

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.



**Commercial Building
National Accounts**



Energy Efficiency &
Renewable Energy