



## OVERVIEW & OBJECTIVES

### BACKGROUND (use links below for more info)

**Brief Version:** The [Zero Net Energy Commercial Buildings Initiative \(CBI\)](#) was launched by DOE in August 2008 to “develop and disseminate technologies, practices, and policies for establishment of zero net energy commercial buildings.” Major milestones are achieving zero net energy buildings in:

- New commercial buildings by 2030;
- Fifty percent of all commercial building stock by 2040; and
- All commercial buildings by 2050.

October 2009, DOE awarded a contract to the [Zero Energy Commercial Buildings Consortium \(ZECBC\)](#) – facilitated by NASEO and ASE - to coordinate private and public sector involvement with DOE in technology and market assessments and other activities to help DOE accomplish the goals of CBI.

#### **Statement of Need:**

- Imperative to reduce energy use in commercial building sector – mandated by law, and
- Challenges and barriers to doing so (fragmented sector, split incentives, lack of awareness and expertise, high perceived risk in risk-averse sector, etc.).

The ZECBC was conceived as a way to bring diverse stakeholders together to facilitate concerted industry action to develop solutions to those barriers, share knowledge, and make connections.

- The ZECBC has 3 years to map out what it takes to get from here to net zero by 2050.
- In the first year, the ZECBC will take an overall look at what gaps exist and what the agenda should be (and possibly go into some recent developments and short-term opportunities).
- In years 2 and 3, the ZECBC will dig into some of those areas identified in year 1.
- The objectives of the reports are to make recommendations to DOE and also to create value and recommendations for the ZECBC members (manufacturers, developers, designers, owners, states, utilities, associations, policy reps, etc.).

### ORGANIZATION AND OUTCOMES

There are two Task areas with a total of 11 workgroups:

#### **1) Technologies and Practices – Brad Hollomon Lead**

1. [Building Envelope](#)
2. [Mechanical Systems, Plumbing, and Controls](#)
3. [Lighting/Daylighting and Controls](#)
4. [Process, IT, and Miscellaneous Equipment](#)
5. [Combined Heat and Power \(CHP\), Multi-Building Systems, and Grid Integration](#)

#### **2) Market and Policy – Dave Hewitt Lead**

6. [Codes and Standards](#)
7. [Integrated Design and Building Delivery](#)

8. [Benchmarking and Performance Assurance](#)
9. [Voluntary Programs, Financing and Appraisal](#)
10. [Owner/Tenant Issues](#)
11. [Workforce Development](#)

There will be two Primary Reports aligned with the task areas. **Report objectives:**

1. **Technology Task Group: Next Generation Technologies Report**
  - Advance technologies that are not ready or economical today but are nonetheless needed to achieve zero energy buildings
  - Characterize gaps between technical feasibility and market achievability of selected technologies
  - Devise and recommend ways to bridge these gaps through:
    - Technology improvements through R&D priorities and other focused innovation mechanisms
    - Accelerated adoption and propagation of the technologies through enhanced institutional policies and programs
2. **Market and Policy Task Group: Analysis of Cost and Non-cost Barriers Report** (our Task)
  - Identify and characterize market barriers;
  - Assess policies and programs to date and identify characteristics and strategies of successful programs; and
  - Make recommendations on what promising solutions and approaches may warrant additional resources or complementary policies.

**1-Year Scope and Report Objectives**

- What are the barriers (cost and non-cost)?
- What are some promising pilots to watch, expand, or replicate? What more needs to be considered?
- What policies exist or should exist at the state/local government level consider to address barriers?

**Conclusions and Recommendations**

- What are the greatest needs and opportunities (may vary by region)?
- What are some recommendations?
- What are areas that need further exploration by the CBC in years 2 and 3?

**3-Year Scope**

- What is the cost reduction potential for the technologies identified in Task 2? What are the non-cost barriers to technology introduction and widespread adoption, including transaction costs?
- What government policies and other solutions exist to successfully overcome these barriers? What additional types of government policies, solutions might help to overcome these barriers?

## SCOPE: OWNERS AND TENANTS WORKING GROUP

The Owners and Tenants Working Group will address split incentives in commercial real estate by exploring alternative leasing provisions and streamlining development and permitting provisions. The group will explore opportunities to develop the “business case” for net zero energy. The group will identify achievable short and long term goals that can move the market toward net zero energy

The group may choose to discuss these or other concepts as outlined in the first meeting:

- Energy efficiency in leases
  - enhanced flexibility
  - tolerance to allow for varying building conditions
- Green construction and building operation
- Triage procedures to prioritize opportunities in energy efficiency
- Engagement of tenants and building users
  - communications, education and engagement of tenants and occupants
- Renewable energy opportunities (on site or market purchased)
- Opportunities and obstacles to net zero communities

## MEMBER ROLES AND PROCESS

### 1. Expectations for Members

- a. *Participate on calls and meetings*
- b. *Provide input as specified by WG chairs on calls and through correspondence*
- c. *Draft documents*
- d. *Each call we will try to identify a few key issues to delve into, and solicit volunteers to draft short sections (2-4 paragraphs) on that topic to start with*
- e. *Review documents and draft reports*

### 2. Calls

- a. *Will be at least 3-4 calls for the whole group, with potential for additional subgroup calls*
- b. *Calls may not be the most effective way to do work due to the size of the groups. Instead, the online file-sharing platform will provide a virtual space to facilitate correspondence.*

### 3. Online Platform

- a. *Link and login info to be provided*
- b. *Members can comment on documents and reports and respond to other posted comments*
- c. *Members can post resources or documents they think other people should see*
- d. *There is also a calendar which will show all the call and meeting date and times*

**OWNERS & TENANTS WORKING GROUP SCHEDULE**



| Zero Energy Commercial Buildings Consortium<br>Tasks & Working Groups | 2010     |          |          |          |          |          |          |             |             |          |          |             |
|---|----------|----------|----------|----------|----------|----------|----------|-------------|-------------|----------|----------|-------------|
|   | 1        | 2        | 3        | 4        | 5        | 6        | 7        | 8           | 9           | 10       | 11       | 12          |
| Working Group Scoping   | Activity | Activity | Activity |          |          |          |          |             |             |          |          |             |
| Group calls with all chairs   |          | Activity |          |          | Activity |          |          | Activity    |             |          | Activity |             |
| Working Group Calls   |          |          | Activity |          |          | Activity |          |             | Activity    |          |          | Activity    |
| Reviewing content and input   |          |          | Activity | Activity | Activity | Activity | Activity | Activity    | Activity    | Activity | Activity | Activity    |
| Checking-in with other report   |          |          |          |          | Activity |          | Activity |             | Activity    |          | Activity | Activity    |
| Working Group Chapter due   |          |          |          |          |          |          |          | Deliverable |             |          |          |             |
| Drafting of Next Generation Technology Report                         |          |          |          |          |          |          |          |             | Deliverable |          |          |             |
| Final Draft of Next Generation Technology Report                      |          |          |          |          |          |          |          |             |             |          |          | Deliverable |
| Drafting of Analysis of Cost and Non-Cost Barriers Report             |          |          |          |          |          |          |          |             | Deliverable |          |          |             |
| Final Draft of Analysis of Cost and Non-Cost Barriers Report          |          |          |          |          |          |          |          |             |             |          |          | Deliverable |