



Zero Energy Commercial Buildings Consortium

**Voluntary Programs, Green Building Initiatives,
Incentives, Finance and Appraisal
Working Group**

April 8, 2010



Welcome

- Overview of Agenda
- Co-Chair Introductions
 - *Uwe Brandes, Urban Land Institute*
 - *Gregg Ander, Southern California Edison*
 - *Scott Muldavin, Green Building Finance Consortium*



Commercial Interest and Antitrust Guidelines

- Members are not to use meetings or informal conversations of this forum to fix prices or otherwise lessen competition
- Members are not to use this forum as a way to further personal business interests through marketing, soliciting, or client prospecting
- Communications through e-mail and the online file-sharing site should stay on topic.
- For full statement see [Working Group Charter](#) online



Zero Energy Commercial Buildings Consortium

Background



Why Target Commercial Buildings

- Buildings account for 40% of energy use and GHG emissions in the U.S.
- Commercial sector makes up half that total
- \$450B invested in commercial building construction and renovation in 2006



What Is A “Zero Energy” Building?

- A high-performance building that is designed, constructed, and operated:
 - to greatly reduce energy use (i.e. ~80%) through integrated technologies
 - meet remaining energy needs from renewable sources
 - be economically viable

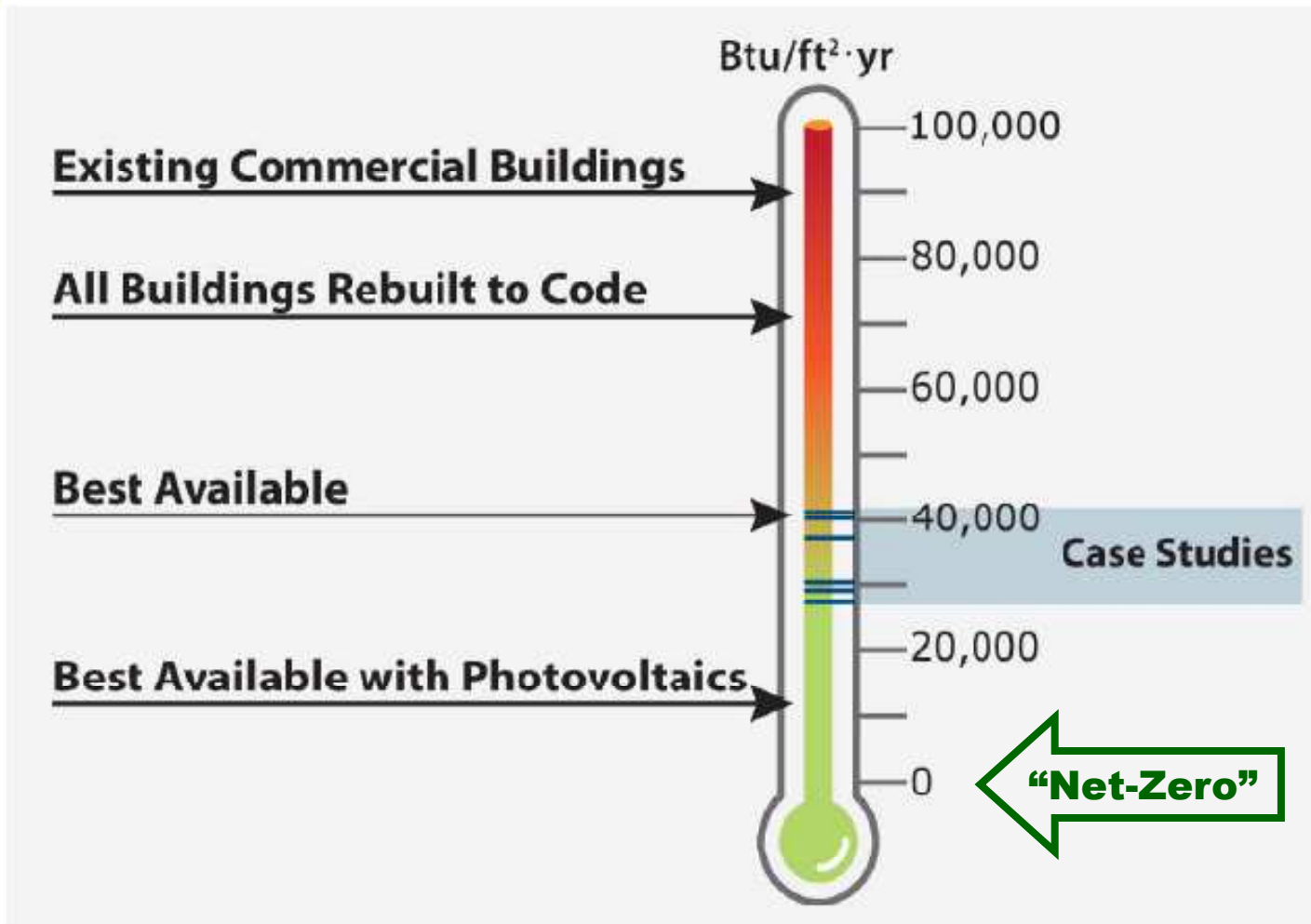


Federal “Zero Energy” Initiative

- Authorized in Energy Independence and Security Act (EISA) §421-423 in 2007
- Milestones are:
 - ZE New commercial buildings by 2030
 - ZE for 50% of all commercial buildings by 2040
 - ZE for all commercial buildings by 2050



Where Are We Today?



Source: P. Torcellini, NREL



Zero Energy Commercial Buildings Consortium

Objectives & Deliverables



ZECBC Objectives

- On October 1, 2009, DOE awarded a contract to ZECBC to achieve a ***path to zero energy*** commercial buildings by:
 - identifying emerging technologies
 - addressing strategies to overcome market barriers
 - facilitating public/private collaboration



ZECBC Deliverables

- Next Generation Technologies Report
 - Advance technologies that are not ready or economical today but critical for achieving zero energy
- Analysis of Cost & Non-Cost Barriers Report
 - Assess policies and programs including characteristics and strategies of successful programs



Working Group Report Format

- Proposed report will be 8-10 pages listing critical issues and recommendations:
 - Define the Topic Area
 - Assess the State of the Art
 - Identify Gaps and Barriers
 - Recommendations for Action



Working Group Milestones

Zero Energy Commercial Buildings Consortium Working Groups	2010											
	1	2	3	4	5	6	7	8	9	10	11	12
Working Group Scoping	█	█	█									
Group calls with all chairs		█			█			█			█	
Working Group Calls			█			█			█			█
Working Group Meetings												
Contributing content and input			█	█	█	█	█	█	█	█	█	█
Drafting of Next Generation Technology Report									█			
Final Draft of Next Generation Technology Report												█
Drafting of Analysis of Cost and Non-Cost Barriers Report									█			
Final Draft of Analysis of Cost and Non-Cost Barriers Report												█
Promoting the Consortium	█	█	█	█	█	█	█	█	█	█	█	█
Providing input on consortium agenda								█	█	█	█	█

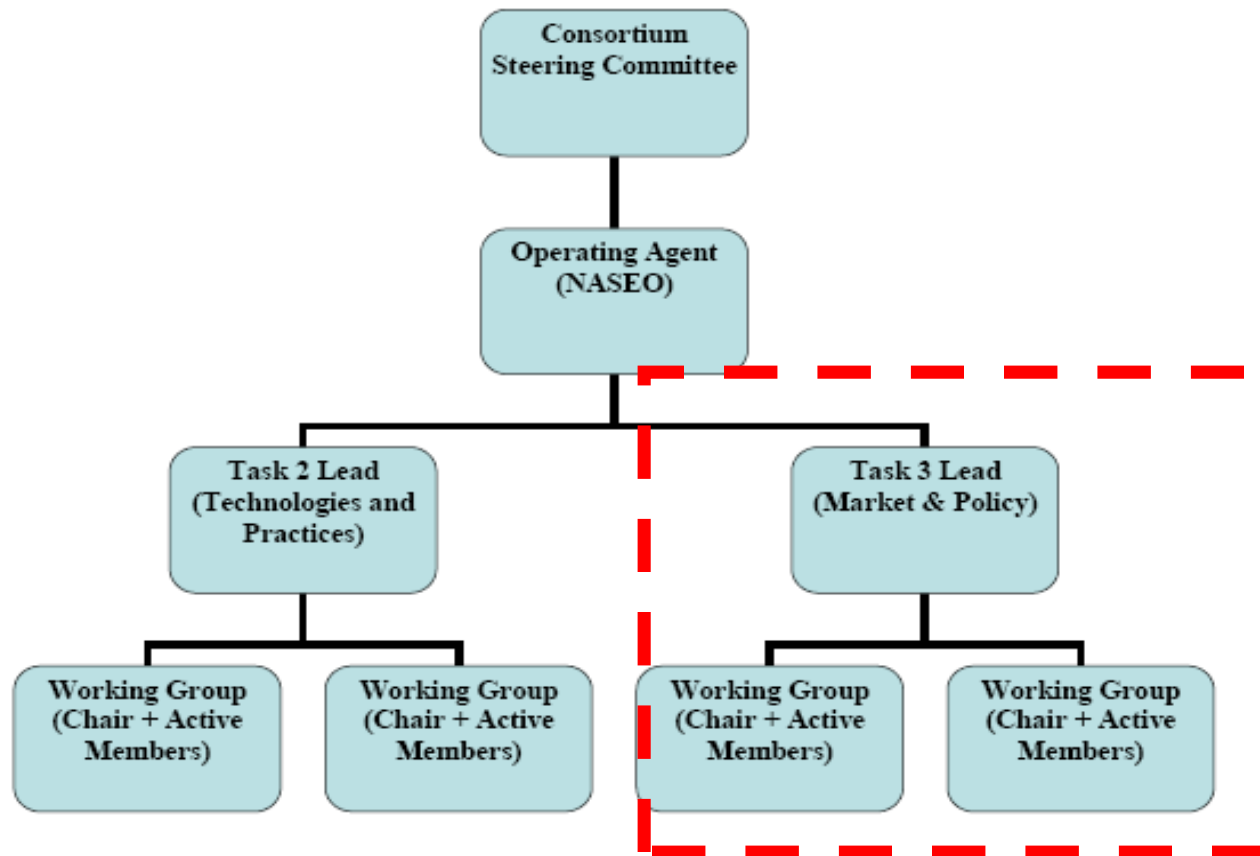


Zero Energy Commercial Buildings Consortium

Organization Structure



ZECBC Organization Chart





Working Groups

Technologies & Practices

- Building Envelope
- Mechanical Systems and Controls
- Lighting/Daylighting and Controls
- Process, IT, and Misc. Equipment
- Grid and Micro-Grid Integration

Market & Policy

- Codes and Standards
- Integrated Design and Building Delivery
- Benchmarking and Performance Assurance
- ***Voluntary Programs, Green Bldg Initiatives, Incentives, Financing and Appraisal***
- Owner/Tenant Issues
- Workforce Development



Member Commitment

- Participate on Webinars and possible meetings and follow-up telephone calls
- Provide input as specified by Co-Chairs on calls and through correspondence
- Review documents and draft reports



Zero Energy Commercial Buildings Consortium

Working Group Scope



Voluntary Programs, Green Building Initiatives, Incentives

- Utility, state, and local voluntary programs
- Incentives such as rebates, loan guarantees, tax credits, subsidies, etc.
- Green building initiatives and rating systems such as LEED



Financing and Appraisal

- Appropriate recognition of the “**value**” of Green Building Investment
- Focus on **cash flow, underwriting and value measurement**
- Focus on **risk assessment**—downside and upside
- Equal emphasis on **new and existing buildings**
- Green Building investment from a **fiduciary** perspective



Questions/Suggestions



- Purpose
- Deliverables
- Organization
- Rules
- Scope
- Other



Next Steps

- Email for members' review and comment a rough draft that:
 - Identifies exemplary “state of the art” efforts and key activities currently underway
 - Lists key barriers and gaps
- Establish a protocol for collecting and sharing information
- Schedule next Webinar



For More Information...

- Contact Kate Marks (kmarks@naseo.org) for more information.
- Contact Diana Lin (dlin@ase.org) for more information on membership.
- Visit us at www.zeroenergycbc.org