Welcome!

ZEDx Zero energy direction

A room full of experts, exchange and enthusiasm

Cathy Higgins, NBI Research Director

This session:

Presentations
Polling
Pop Ups
Perspectives

#gtz2016forum
New Buildings Institute © 2016

Getting to Zero 2012
Getting to Zero 2014
Getting to Zero 2016
Getting to Zero 2018
Getting to Zero 2020

Got to Zero 2050

Paths to Zero

People
Policy
Projects
Products
Practices
### U.S. Market Share
*(where to start on the path to ZNE)*

<table>
<thead>
<tr>
<th>EUI</th>
<th>End Use</th>
<th>Floorspace (sf)</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Rank</td>
</tr>
<tr>
<td>1</td>
<td>79 Office</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>33 Warehouse / Storage</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>70 Education</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>91 Mercantile (Retail)</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>113 Lodging</td>
<td>5</td>
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*Non-mall based on 2012 CBECS released in 2015*

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**Our Planet**

**Gen2030**

*Image showing a child on a bike with a sign saying I AM BUILDING #100.*
Solutions here today
what part will you play in solving the greatest challenge of our time?

Pop Up
George Simmons
Polling: Your Perspective

Phones out – in silent
This is anonymous
Text app open

Leslie Shao Ming Sun Field Station
Woodside, CA

Richardsville School, Bowling Green, KY

IDeAS Building, San Jose, CA

IAMU Office Building, Ankeny, IA

ZEDx Speakers

Slide photos from Chris Pyke
The 2016 List of ZNE Buildings!

Number of ZNE Projects

- 394 Total
  - 2016: 53
  - 2014: 127
  - 2012: 39

- 213 Total
  - 2016: 279
  - 2014: 127
  - 2012: 39

- 99 Total
  - 2016: 62
  - 2014: 53
  - 2012: 39

The Name Game

- Zero Energy Buildings
- Zero Carbon Buildings
- Zero Electric Buildings
- Nearly Zero Energy Buildings
- Zero Net Energy
- Net Zero Energy
- Living Buildings
- Zero Net Ready Buildings
- Ultra-low Energy Buildings
The 2016 ZNE List

Ultra-low Energy Buildings Zero Net Energy
- Verified
- Emerging

- EUI in Site & Source & zEPI

Growth in ZNE Buildings

Growth of ZNE and Ultra-Low Energy Buildings

[Graph showing growth over years with categories: ZNE Verified, ZNE Emerging, Ultra-Low Energy]
Where are ZNE Projects?

ZNE Buildings in Every Climate Zone
ZNE Buildings on the Eastern Seaboard

ZNE are usually 20 EUI or less!!
ZNE – Now Available in Your Size

Building Size by ZNE Status

- 0 - 5k sf
- 5k - 10k sf
- 10k - 25k sf
- 25k - 50k sf
- 50k - 100k sf
- Over 100k sf

ZNE – Now Available in Your Size

Large ZNE and Ultralow Energy Building Growth

- 25k - 50k sf
- 50k - 100k sf
- Over 100k sf

100k + sf
Who is Aiming for ZNE?

ZNE Building Ownership Type

- Private - Non-profit: 9%
- Public - Federal: 5%
- Public - State: 10%
- Public - City: 12%
- Private - Multifamily: 12%
- Public - County: 22%

30% Private for Profit

+12 %

ZNE and Ultra-Low Energy Building Types

- Public Assembly: 7%
- Multifamily: 11%
- Other: 21%
- Office: 23%

38% Education

Names and Numbers

Some of the Firms here with Buildings on the ZNE List

- AP+I Design
- Capital Engineering Consultants
- Castle Wells Company
- Davis Energy Group
- DLR Group
- EHDD
- Green Hammer
- HOK Architects
- Integral Group
- Maclay Architects
- ME Group
- Mithun
- Morgan Creek Developers
- Optima Engineering
- PAE Consulting Engineers
- Point Energy Innovations
- RNL Design
- TD Bank
- United Therapeutics
- JC Venter Institute
- WRNS Studio
- WSP Parsons Brinkerhoff

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Pop Up
Brad Liljequist

CASE STUDY JAMS

Slide photos from Chris Pyke
Questions & Perspectives