National Green Building Standard – ICC 700

NIST Workshop
Strategies to Get to Net Zero Energy Homes

September 15, 2011
National Green Building Standard
ICC 700

- Approved by American National Institute of Standards (ANSI) January 2009
- Provides rating system of a home’s environmental impact
- Sets four performance levels for green homes
- Government entities look to ANSI standards to set industry benchmarks
- Designed to be voluntary, above-code program

National Green Building Certification
Hallmarks of ANSI Process

- Consensus by balance of stakeholders
- Broad-based public review and comment
- Consideration of comments submitted
- Incorporation of approved changes into standard
- Right to appeal for anyone who believes due process was not respected
Lot Design

Operation & Maintenance

Indoor Air Quality

Resource Efficiency

Healthy Comfortable Durable Energy Efficient

Water Efficiency
Scope of NGBS

- Communities
- Residential Buildings
  - Single-Family & Multi-family
    - New Construction
    - Additions & Renovations & Remodel
Land Development

National Green Building Certification
Land Development

- One - Four Stars
- Point-based performance criteria
- Measures for planning, design, and construction
- Mixed-use development
- Urban, suburban, rural
- Land Points for home compliance
Single-Family

National Green Building Certification
Single-Family

Habitat for Humanity Homes

National Green Building Certification
Green Remodel MF

National Green Building Certification
Performance Levels

<table>
<thead>
<tr>
<th>Green Building Categories</th>
<th>Performance Level Points (1)(2)</th>
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<tbody>
<tr>
<td></td>
<td>BRONZE</td>
</tr>
<tr>
<td>1. Chapter 5</td>
<td>Lot Design, Preparation, and Development</td>
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<tr>
<td>2. Chapter 6</td>
<td>Resource Efficiency</td>
</tr>
<tr>
<td>3. Chapter 7</td>
<td>Energy Efficiency</td>
</tr>
<tr>
<td>4. Chapter 8</td>
<td>Water Efficiency</td>
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<tr>
<td>5. Chapter 9</td>
<td>Indoor Environmental Quality</td>
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<tr>
<td>6. Chapter 10</td>
<td>Operation, Maintenance, and Building Owner Education</td>
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<tr>
<td>7.</td>
<td>Additional Points from any category</td>
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<td>Total Points:</td>
<td>222</td>
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ToolBase.org

- **Zero Energy Homes: A Brief Primer**
  A presentation describing the components of a Zero Energy Home.

- **ZEH Impact Study**
  The Potential Impact of Zero Energy Homes demonstrates the significant long-term energy and environmental benefits of ZEH and encourages more builders to investigate the idea for their customers.

- **Seven Steps to a ZEH**
Thomas Kenney
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