Advanced Measures for Multifamily Projects

New Buildings Institute (NBI)

NBI is redefining energy efficiency in the built environment.

Program Areas:

- Best practices in new and existing buildings
- Continuous code and policy innovation
- Zero energy leadership and market development

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Multifamily Efficiency Solutions

neea

ENERGY FOUNDATION
building a new energy future

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

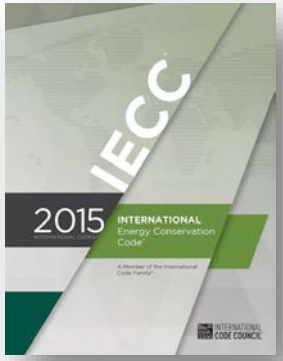
Built more like commercial

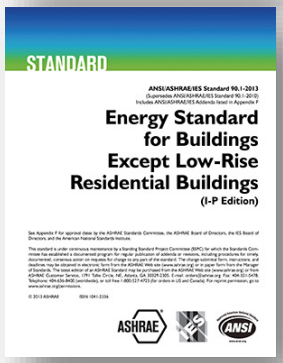
Moda Tower, Portland, OR

Built more like commercial

Used more like residential

Multifamily: A Market Divided





High-Rise Multifamily:

- 4 or more stories
- Regulated as Commercial

Low-Rise Multifamily:

- 3 or fewer stories (up to 5 in some cases in MA)
- Regulated as Residential

The Shade House Condos, Houston, TX

M Residences, Nashville,TN

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Base Code and Year	Range of Savings
IECC-2015	*15-25%*
IECC-2012	*17-30%*
90.1-2013	*20-30%*
90.1-2010	*22-34%*
90.1-2004	*26-34%*

M Residences, Nashville,TN

- High Performance Windows
- Reduced Infiltration
- Reduced Thermal Bridging
- High Performance HVAC Equipment
- High Performance Fans
- Efficient Ventilation
- Advanced HVAC Controls
- High Performance Interior Lighting
- Interior Lighting Controls
- High Performance Exterior Lighting
- High Performance Water Heating Equipment
- Hot Water Conservation
- Efficient Appliances

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Additional Measure Bundle – delivers savings up to 40% better than IECC-2015

- High Performance Thermal Envelope
- Ground Source Heat Pump
- Radiant Heating/Cooling
- High Performance Heat Pump
- Heat Recovery Ventilation
- Heat Pump Water Heater


M Residences, Nashville,TN

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Topics Critical in Multifamily

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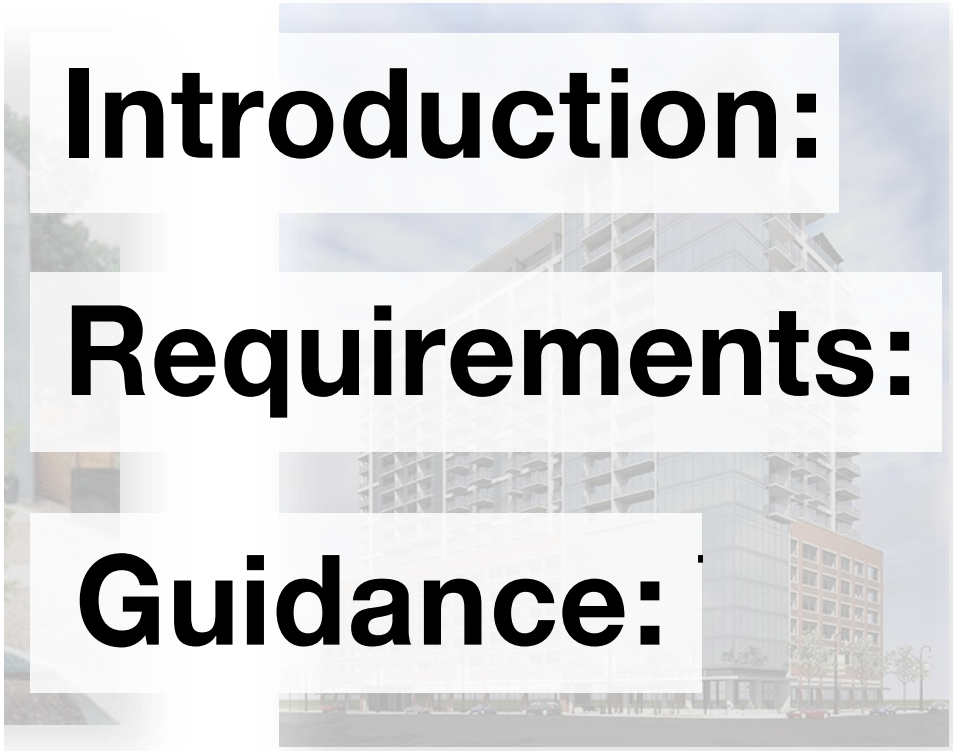
Structure of the *Multifamily Guide*

The *Multifamily Guide* is divided into three parts: this Introduction, the Requirements, and Guidance.

Introduction: The Introduction includes background information and a description of the purpose and content of the *Multifamily Guide*.

Requirements: The Requirements section includes the specific requirements for the bundle of measures that must be met in order to achieve the savings of the *Multifamily Guide*. It also includes additional energy options that can be pursued for greater savings.

Guidance: The Guidance Section includes guidance for four issues critical to the energy performance of multifamily housing: Domestic Water Heating, Site Lighting, Thermal Bridging and Ventilation. This guidance will help design teams successfully implement the requirements of the *Multifamily Guide* or any other multifamily project.



Multifamily Guide Customization Example

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Multifamily Guide Customization by ComEd

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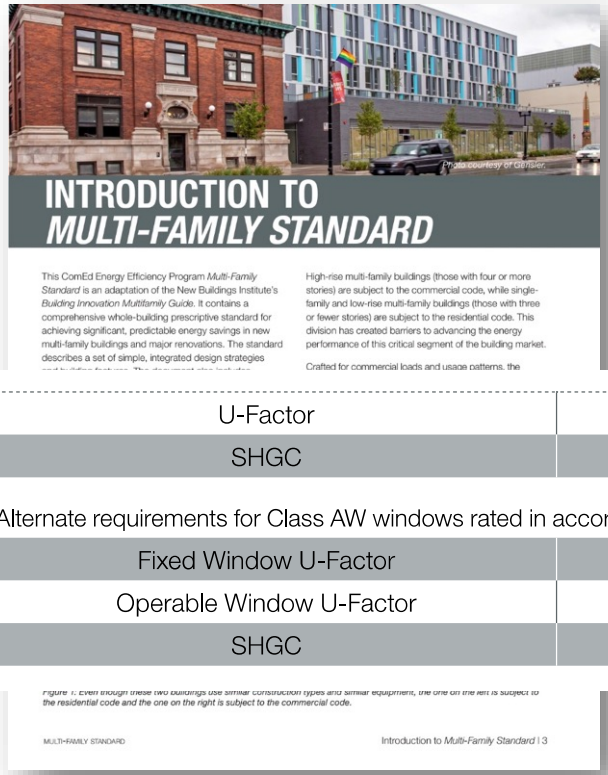

U-Factor	U-0.27
SHGC	0.35

Alternate requirements for Class AW windows rated in accordance with AAMA/WDMA/CSA 101/I.S.2/A440:

Fixed Window U-Factor	U-0.36
Operable Window U-Factor	U-0.43
SHGC	0.35

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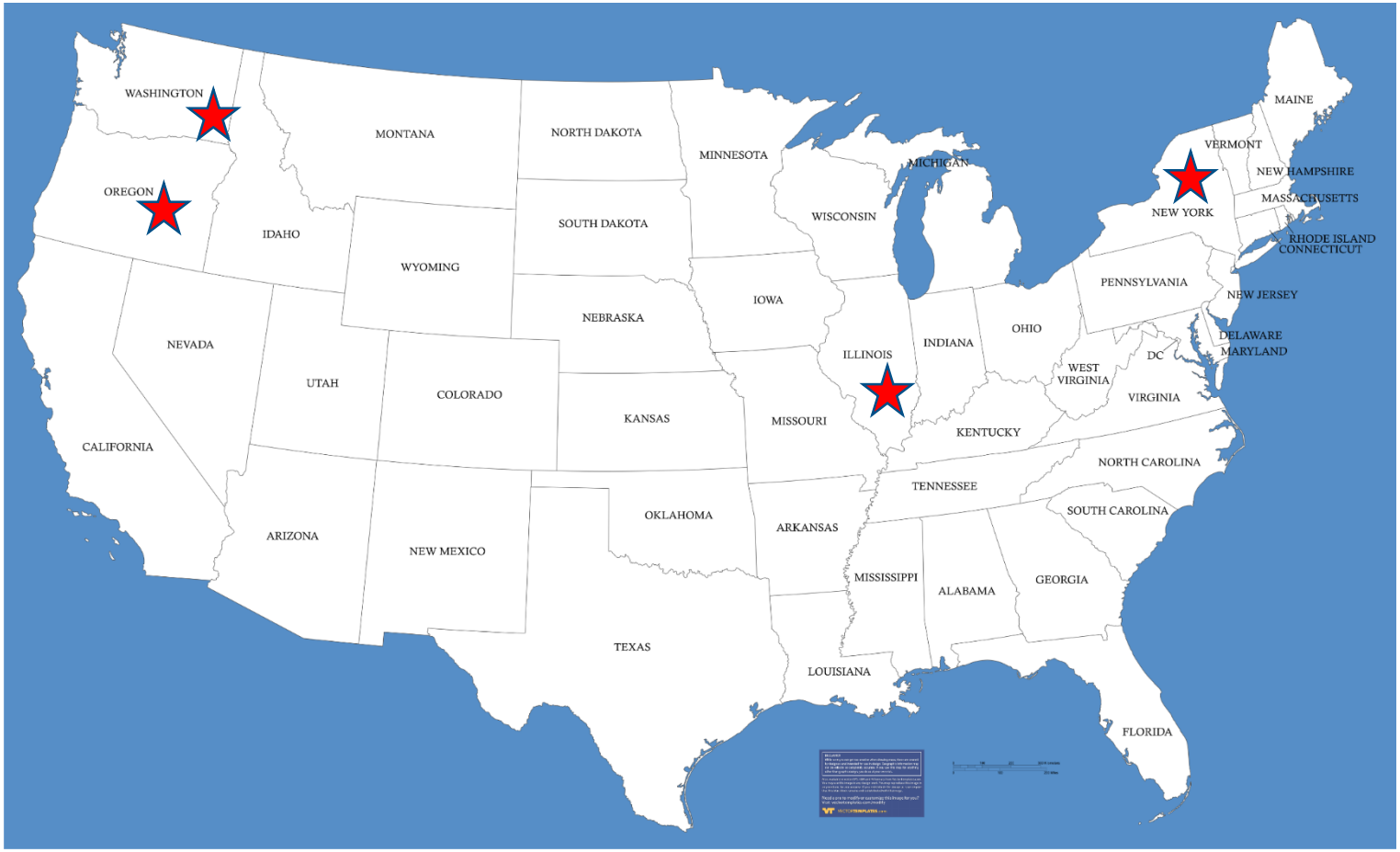

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For More Information:

newbuildings.org/product/multifamily-guide/

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