Indiana HERS Ratings:
Comparison to the State Energy Code

November 1, 2017

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Indiana HERS Data Set

Background

- MEEA received a dataset for all HERS rated homes in Indiana from RESNET (2014 – 2016)
- Dataset includes HERS score, plus all features that impact building efficiency (e.g. wall insulation level, envelope air sealing, etc.)
- MEEA conducted an analysis to determine:
  - Typical construction practices for HERS rated home
  - How rated homes compare to the energy code

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IN HERS Data set

- New Construction: Single Family (2014 – 2016)
- # of homes: 20,446
- Average size: 3200 Sq. Ft. (Conditioned)
- Average HERS Score: 66
- HERS Rated vs. new 1-family permits statewide
  - 2014: 54%
  - 2015: 56%
  - 2016: 48%

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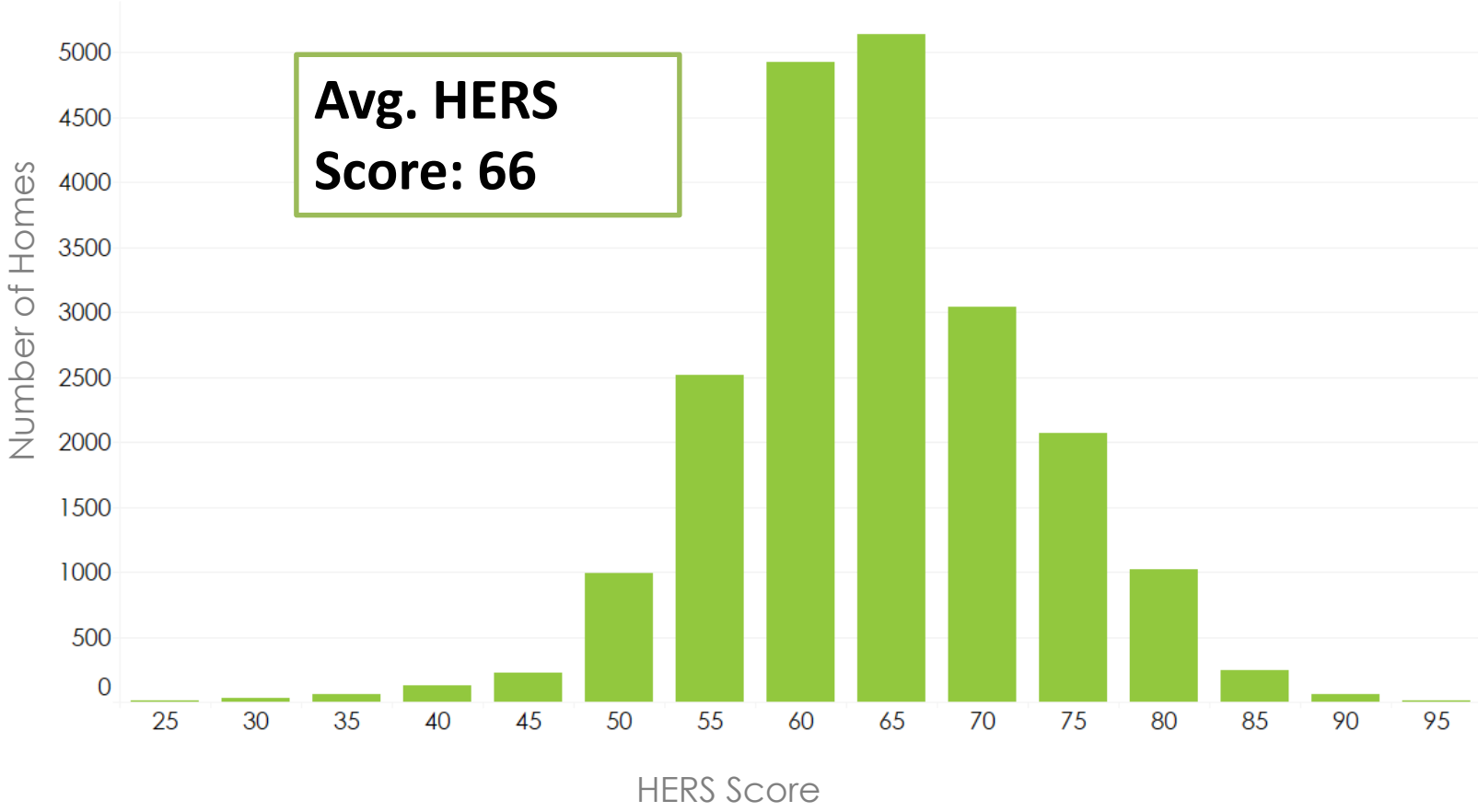
HERS Score Breakdown

All Homes



REMRate v. 14.6 or less

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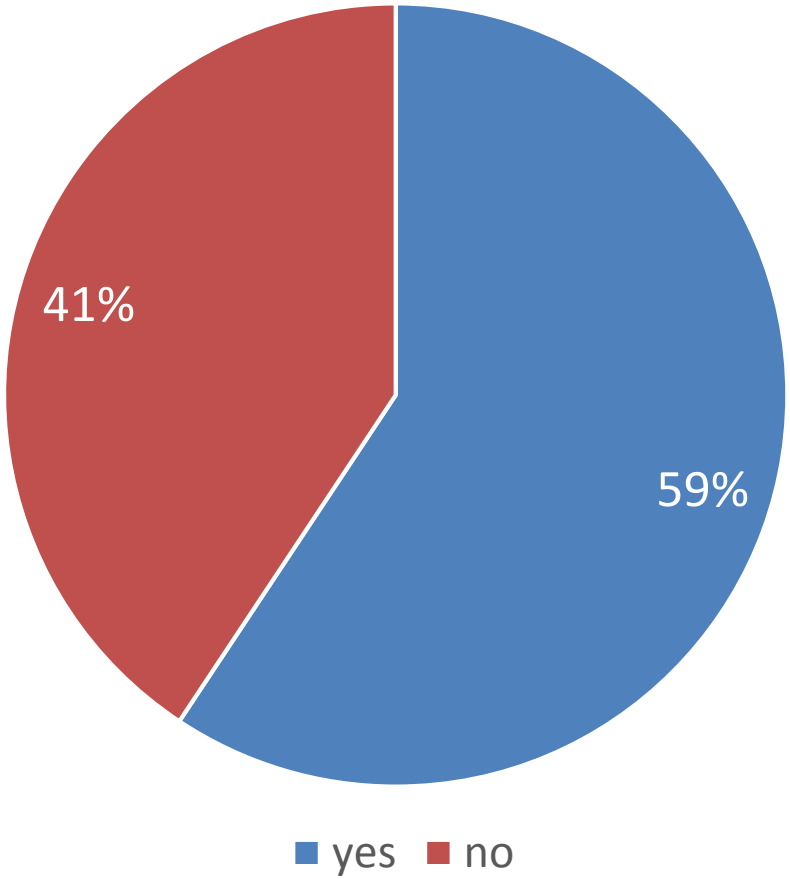
Energy Star Homes

All Homes



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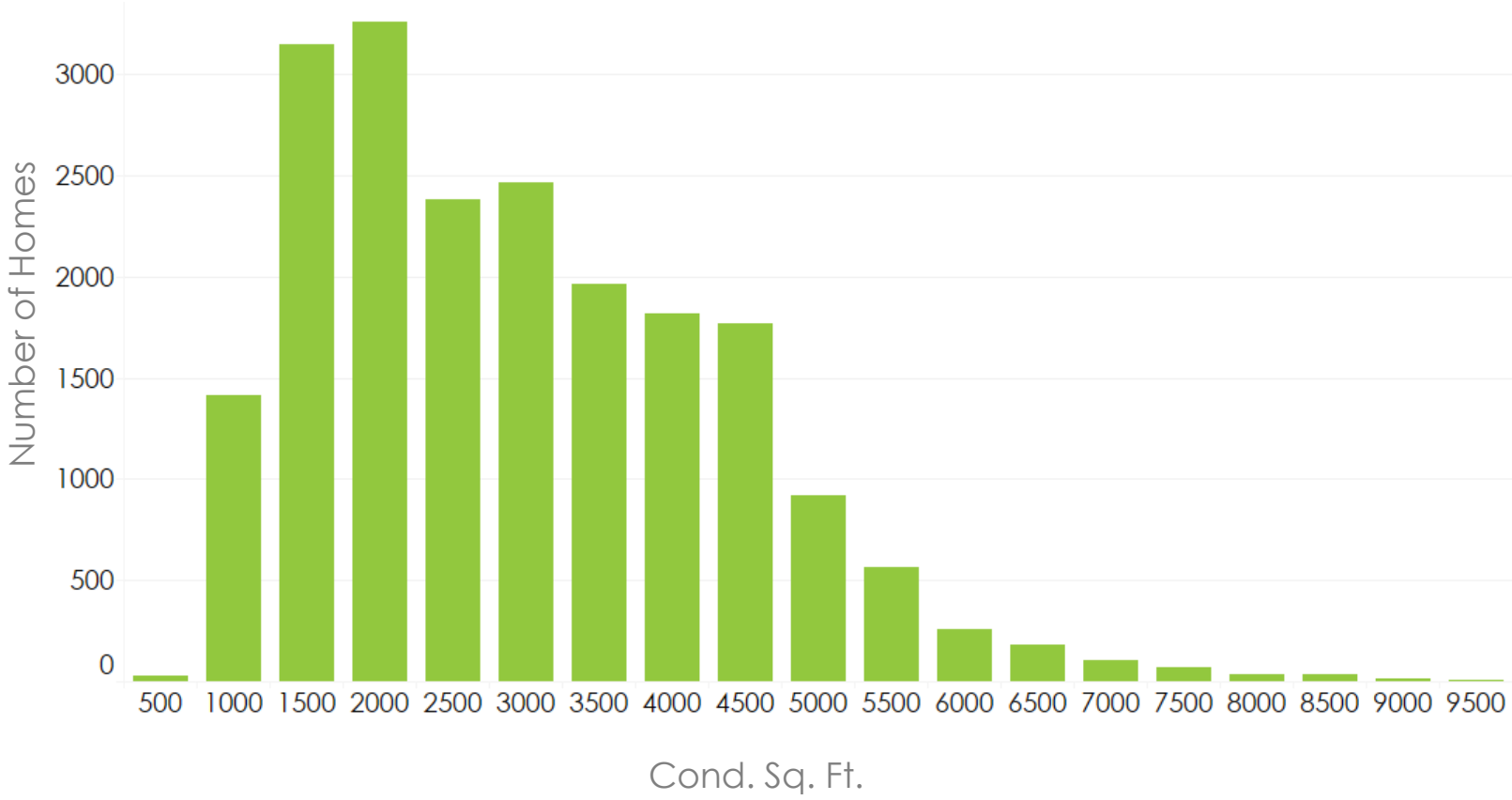
Conditioned Sq. Ft.

All Homes



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Comparing Data to Code Requirements

2009 IECC w/ Indiana Amendments (CZ 5)

- **2009 IECC**
  - Foundation Insulation: R-13
  - Wall Insulation: R-13
  - Ceiling Insulation: R-38
  - Windows: U= 0.35
  - Air Leakage: 7 ACH50 (Mandatory)
  - Duct Leakage: 8 CFM 25/100 sq. ft. (Mandatory)
  - High Efficacy Lighting: 50% (Mandatory)
  - AC Efficiency – 13 SEER
  - Furnace Efficiency – 80 AFUE

Indicates Minimum Code Req.

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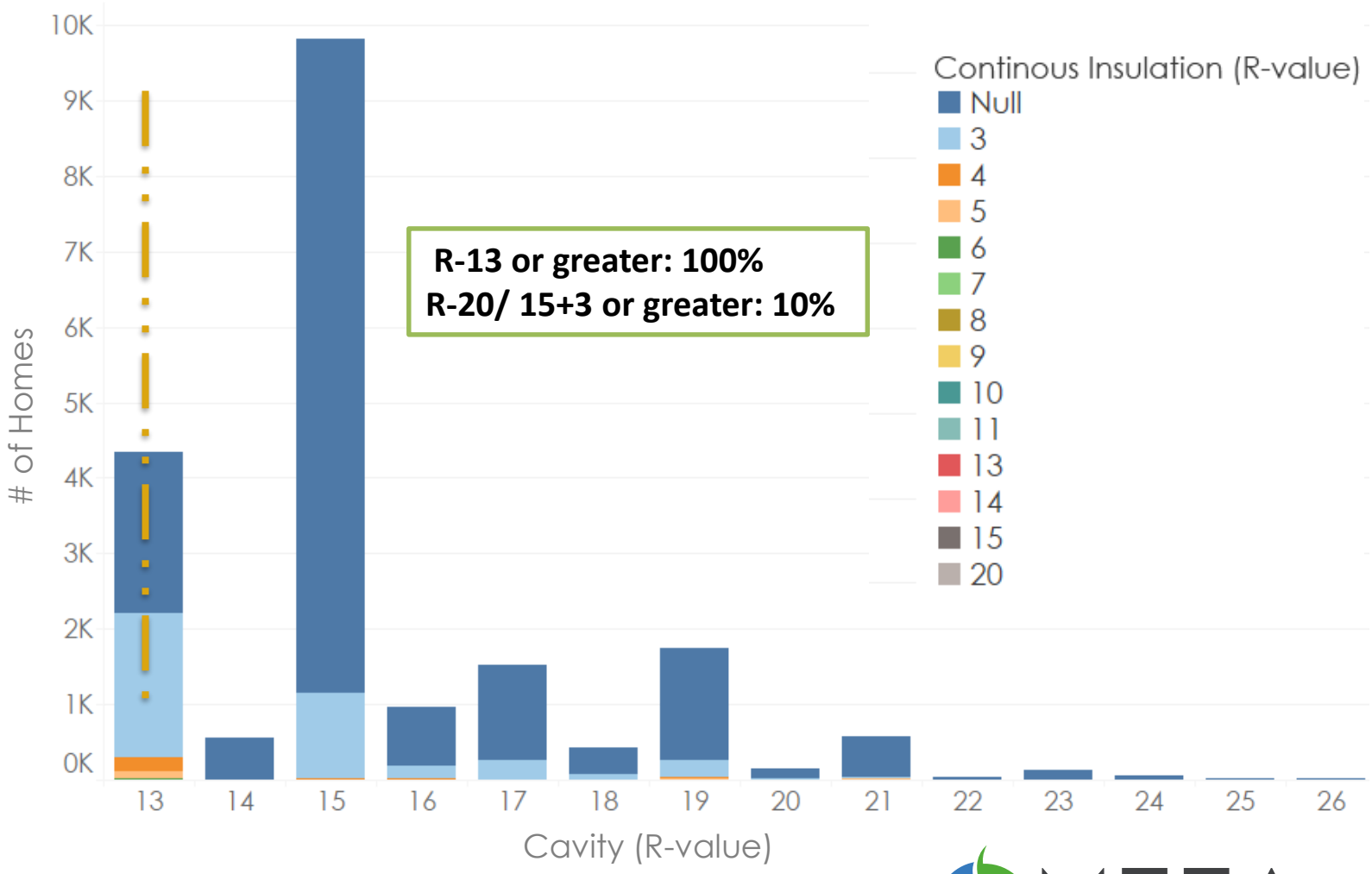
Above Grade Wall Insulation (R-Value)

Prescriptive Code Requirement



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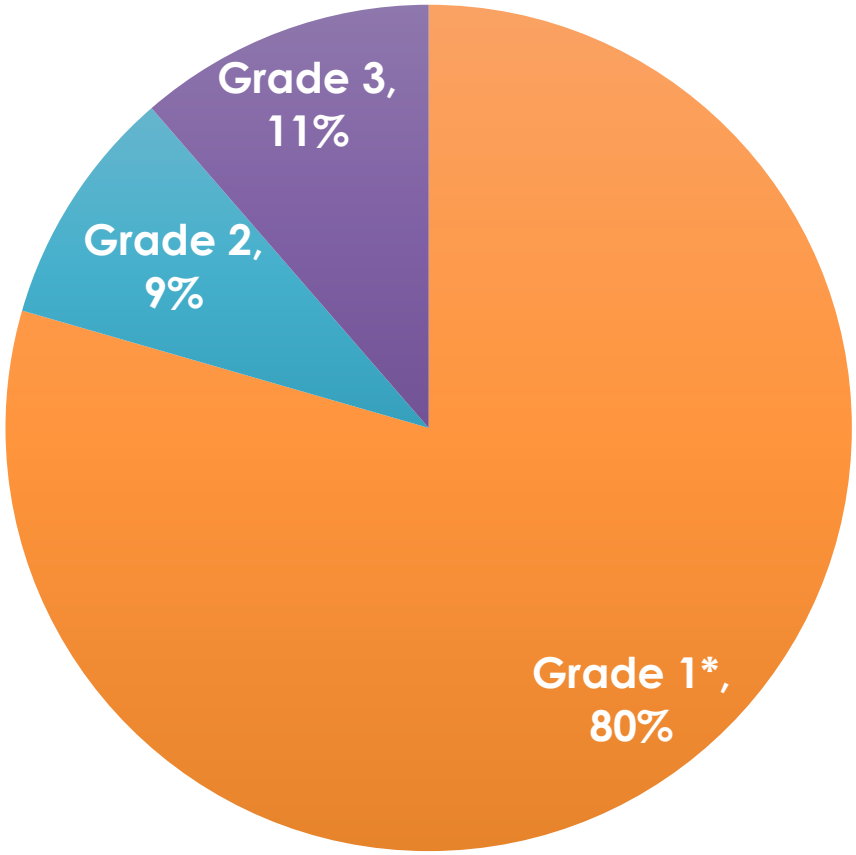
Insulation Quality

Installations Rated with a Value of 1,2,3



* Grade 1 is a mandatory requirement

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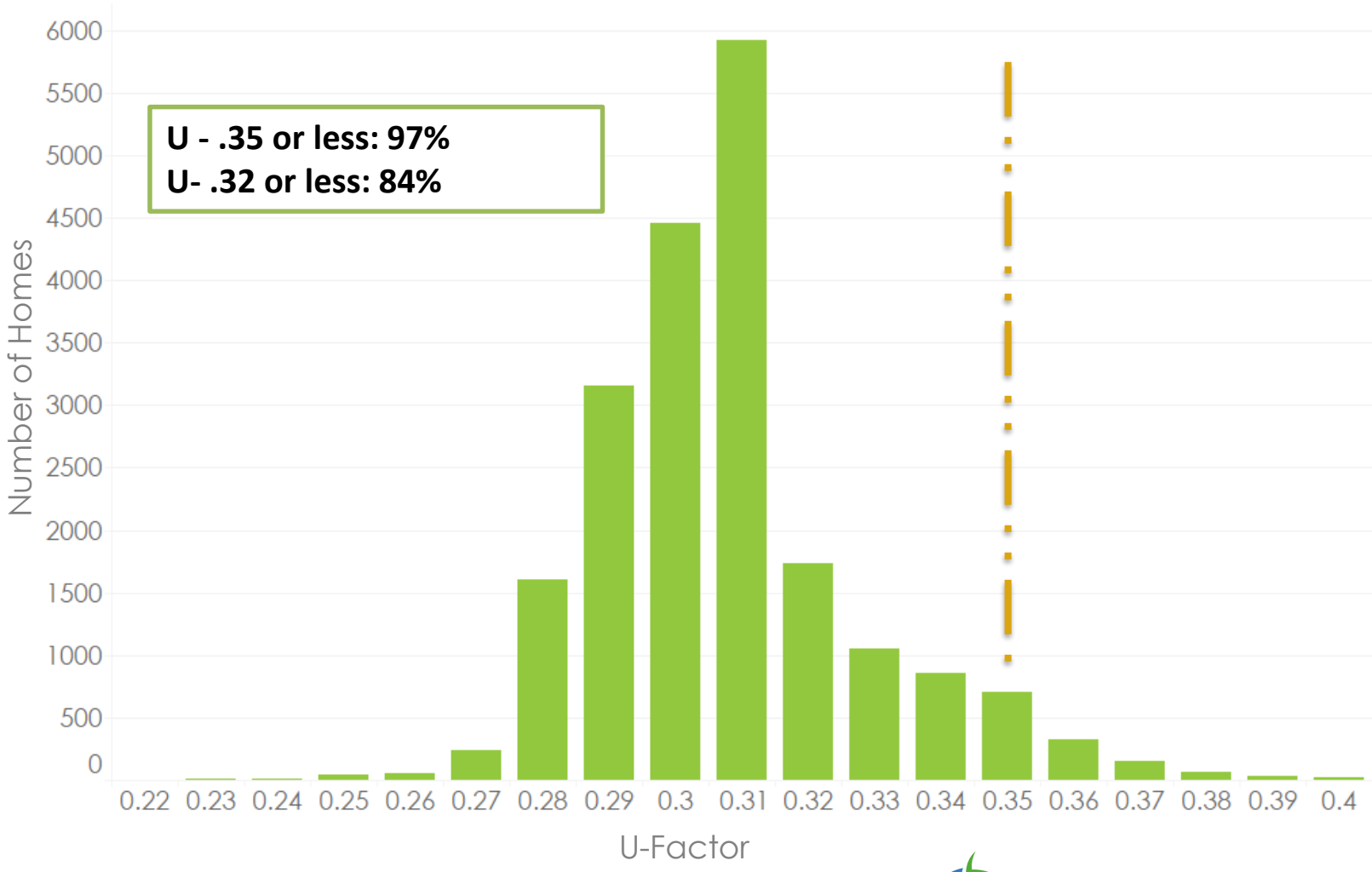
Window Efficiency (U-Factor)

Prescriptive Code Requirement



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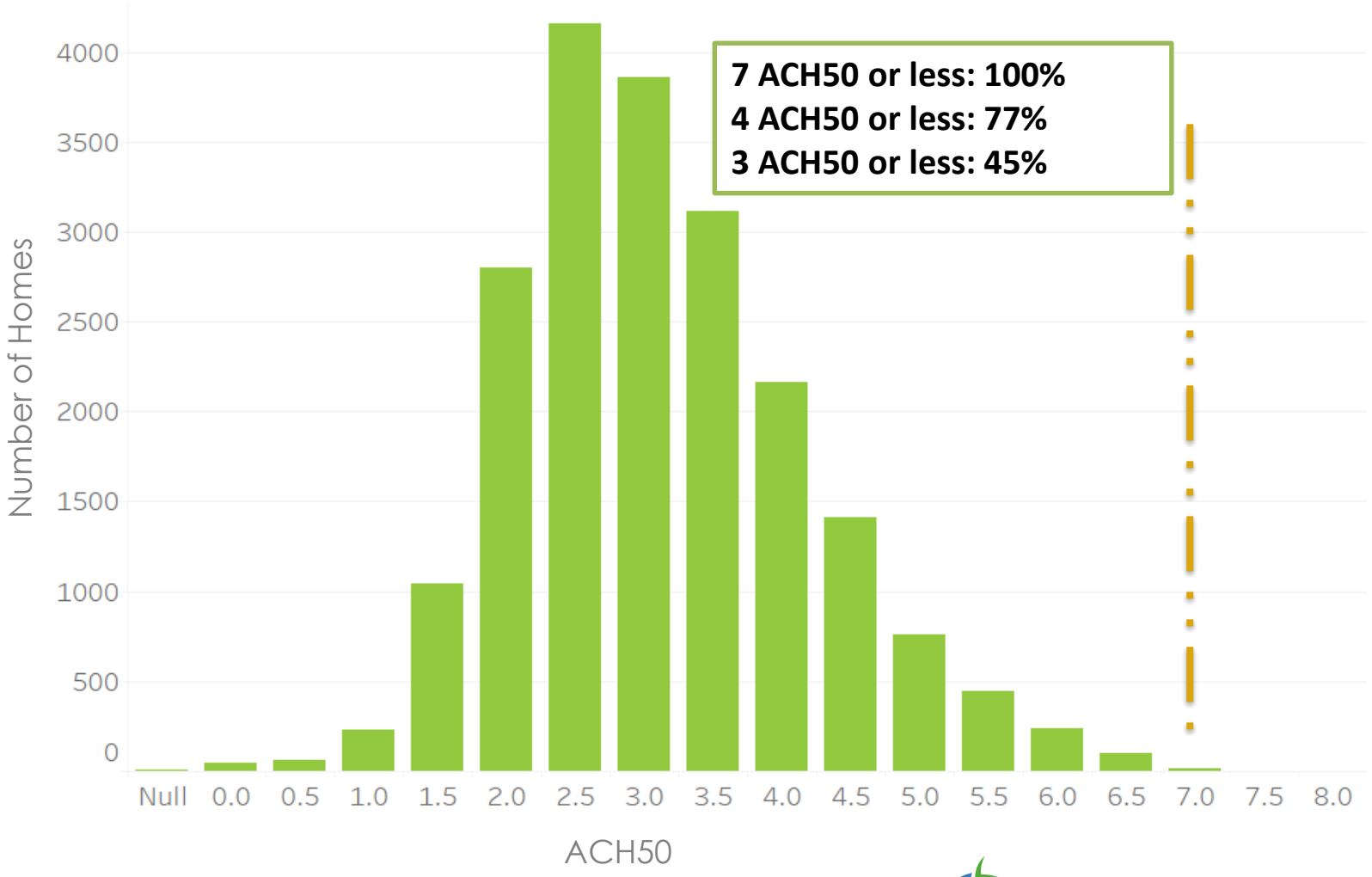
Air Leakage (ACH50)

Mandatory Code Requirement



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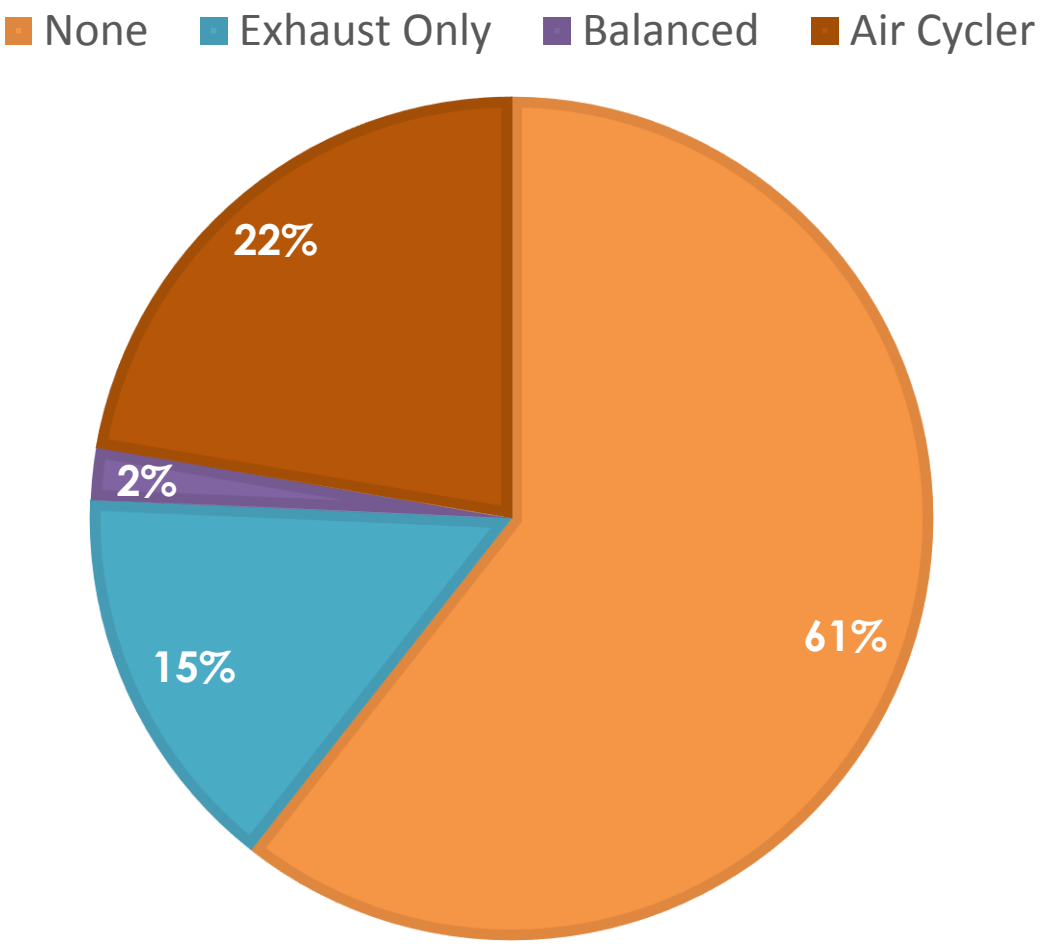
Ventilation Type



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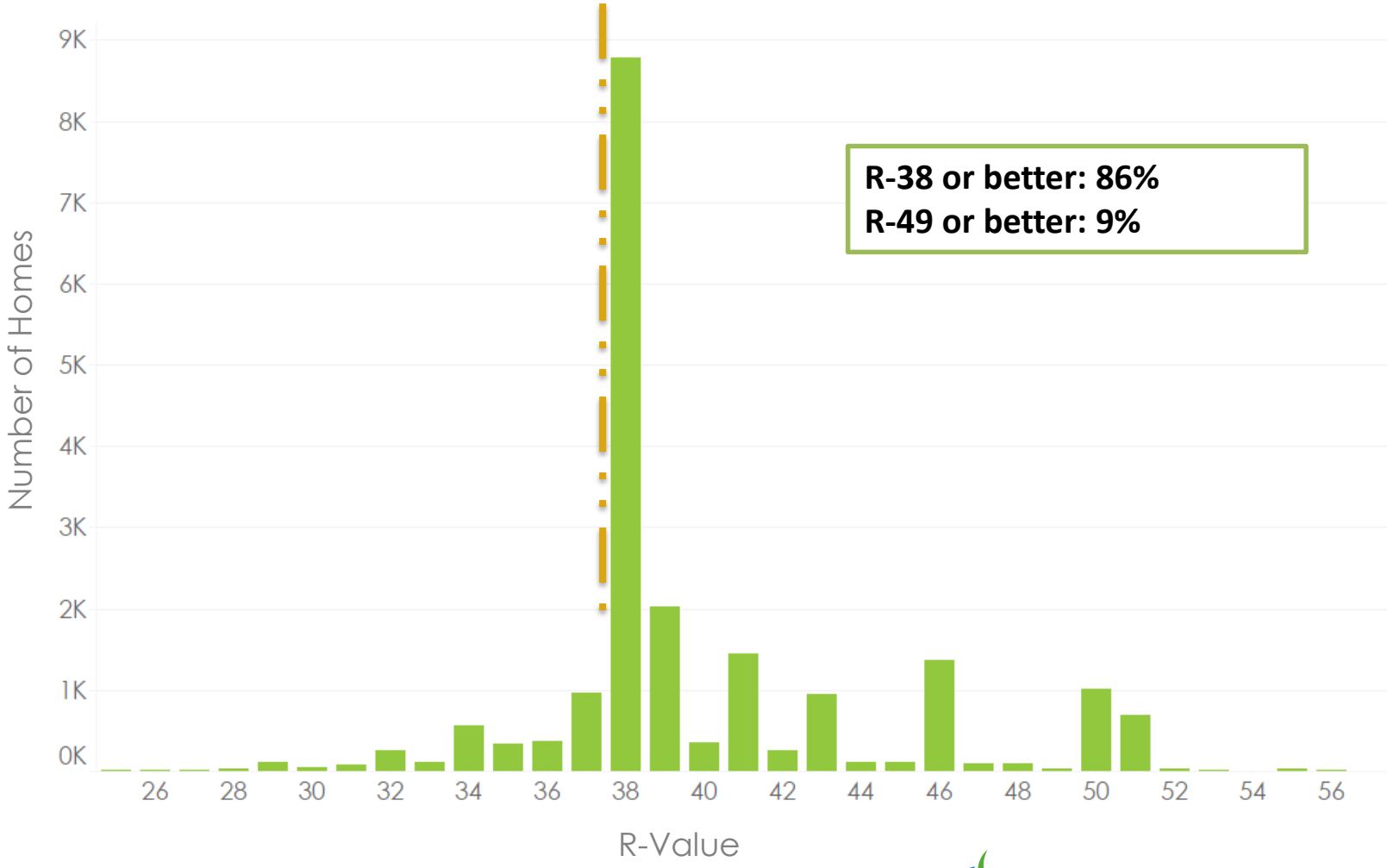
Ceiling Insulation (R-Value)

Prescriptive Code Requirement



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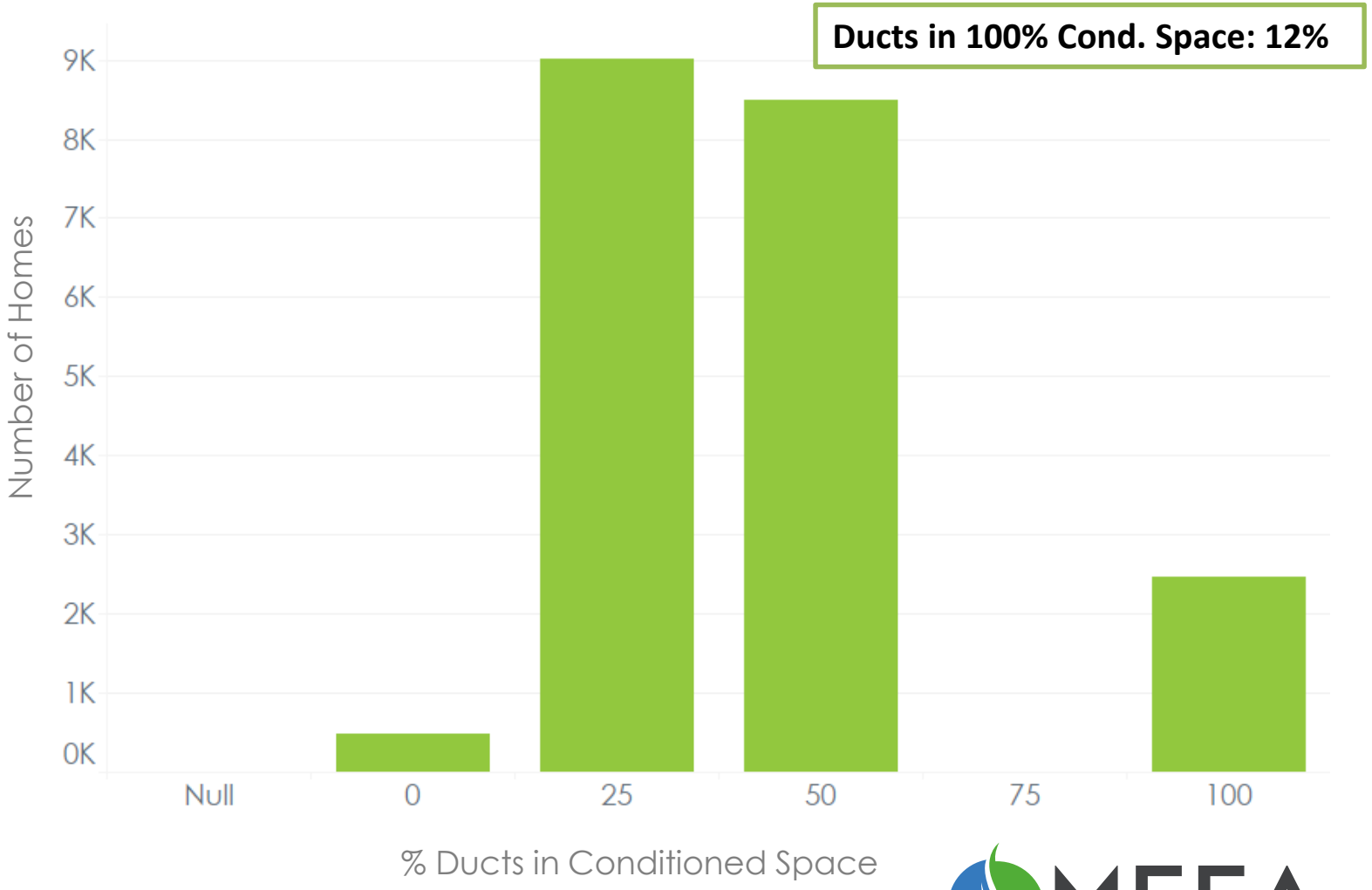
Ducts in Conditioned Space

Prescriptive Code Requirement



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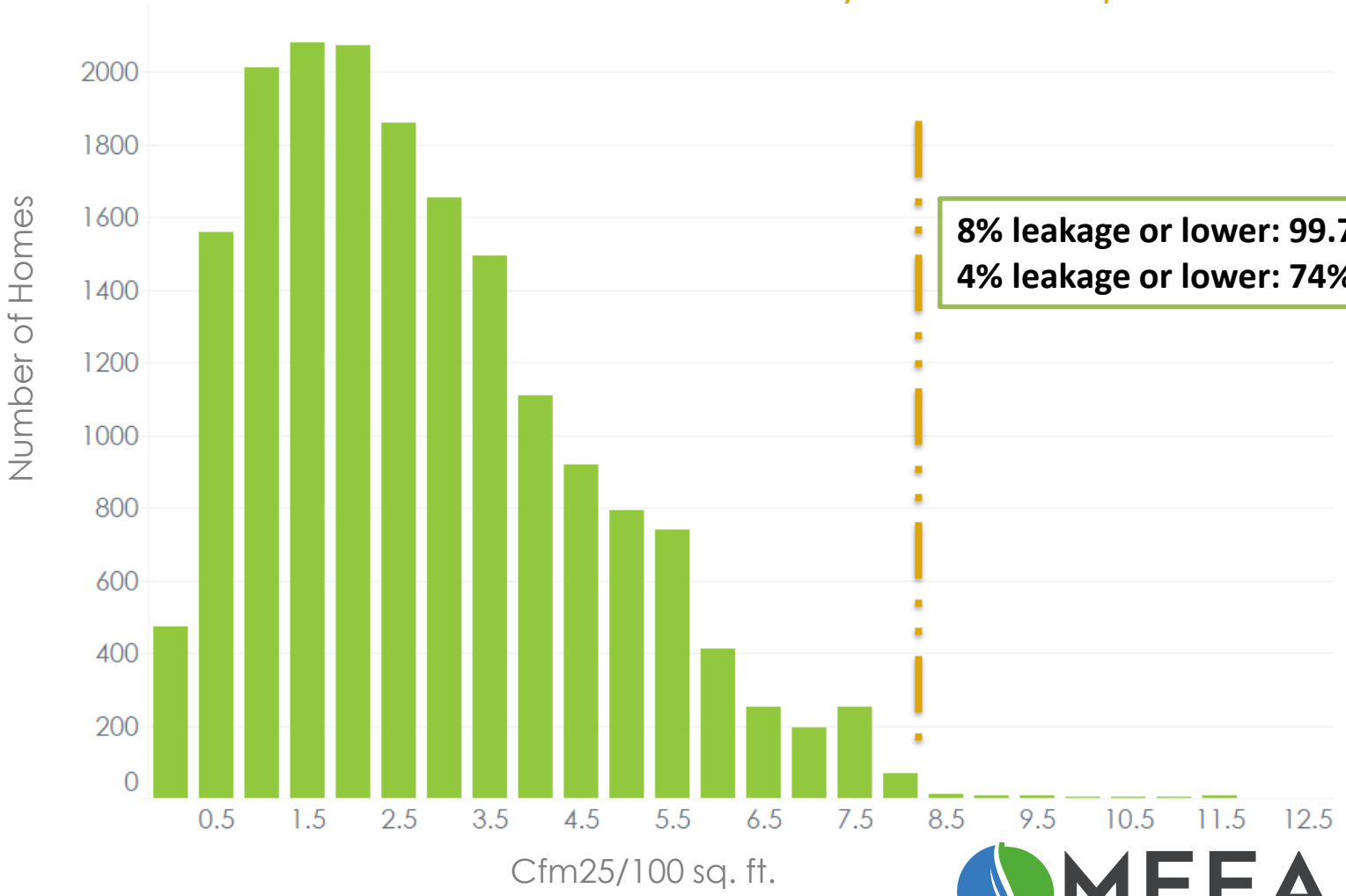
Duct Leakage to Outside – Unconditioned Space*

Mandatory Code Requirement



* Only showing homes w/ ducts in unconditioned space

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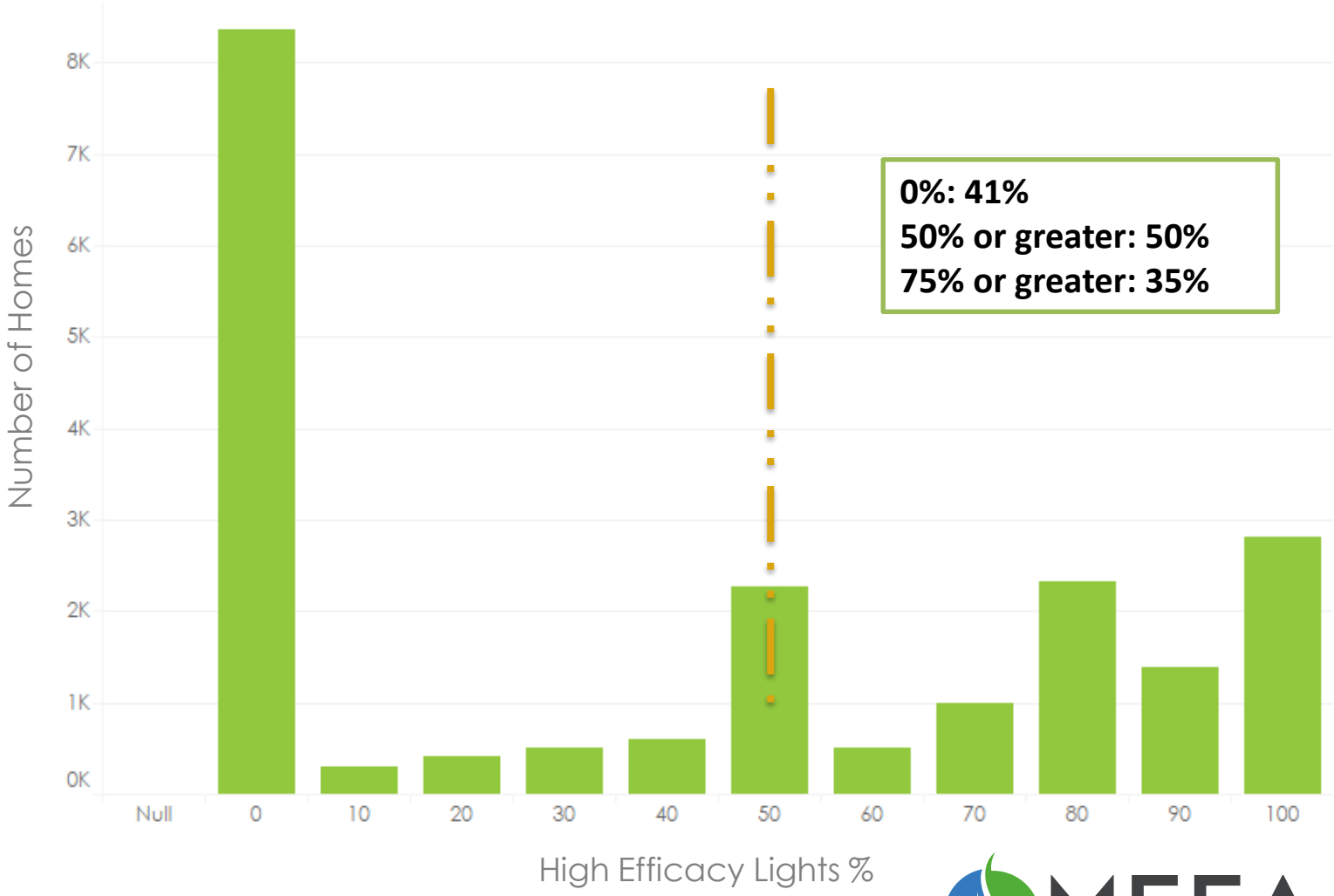
High Efficacy Lighting (%)

Mandatory Code Requirement



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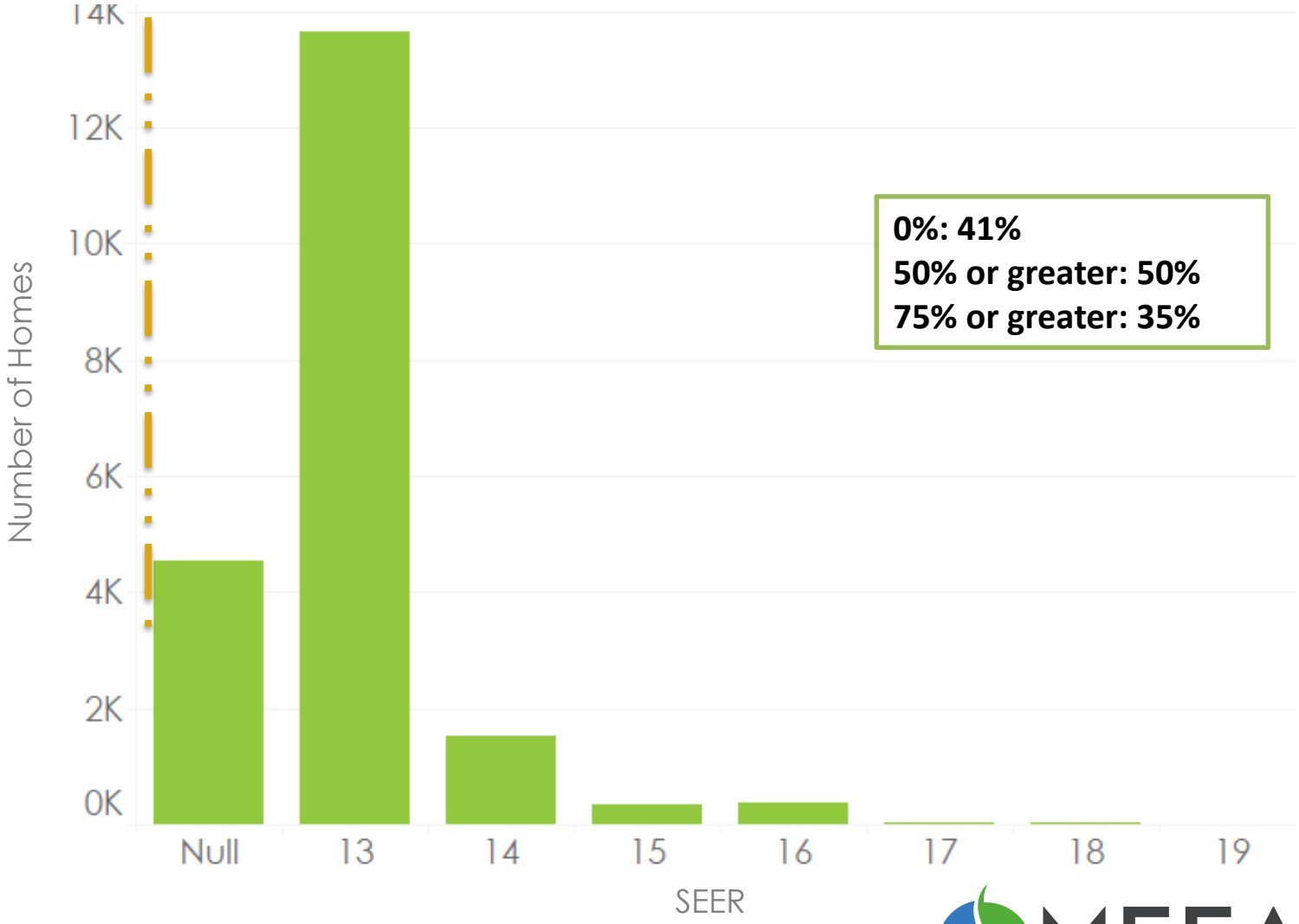
AC Efficiency (SEER)

Meet Federal Minimum



0%: 41%
50% or greater: 50%
75% or greater: 35%

Null = Heat Pump

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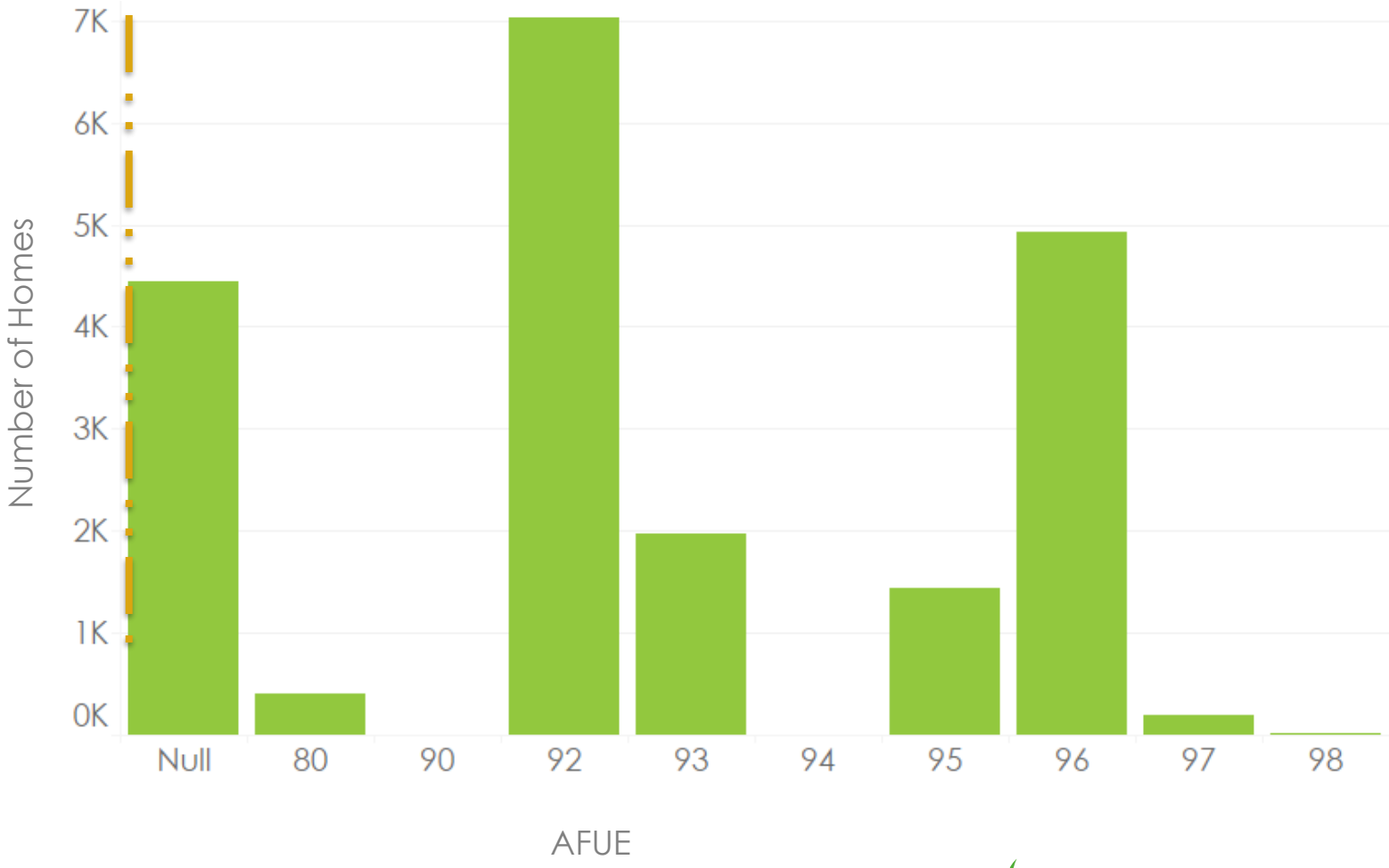
Furnace Efficiency (AFUE)

Meet Federal Minimum



Null = Heat Pump

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