

ET Summit 2019

Presented by



From Green to Grid

The Future of Residential and Multifamily Housing

Presenters:

- Ryan McFadden, Engineer, Building Electrification, Southern California Edison
 - Bryan Dove, Director, Asset Management, Mutual Housing California
 - Karl Johnson, Founder & CEO, BeyondFire

Introduction: Multifamily Trends and Resources

Cathy Higgins
Research Director
New Buildings Institute



The Shade House Condos, Houston, TX



M Residences Nashville, TN



High-Rise Multifamily:

- 4 or more stories
- Regulated as Commercial



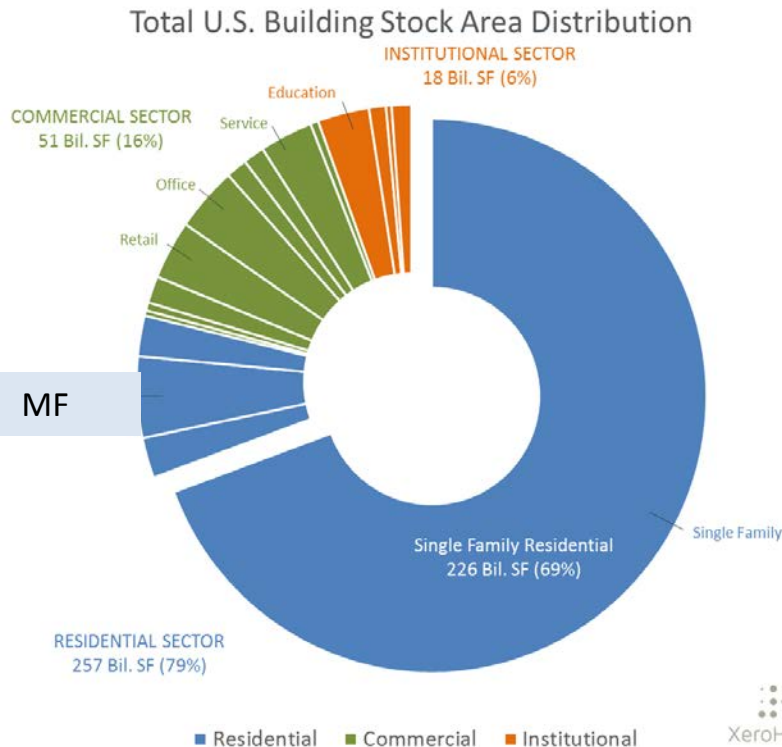
Low-Rise Multifamily:

- 3 or fewer stories
- Regulated as Residential

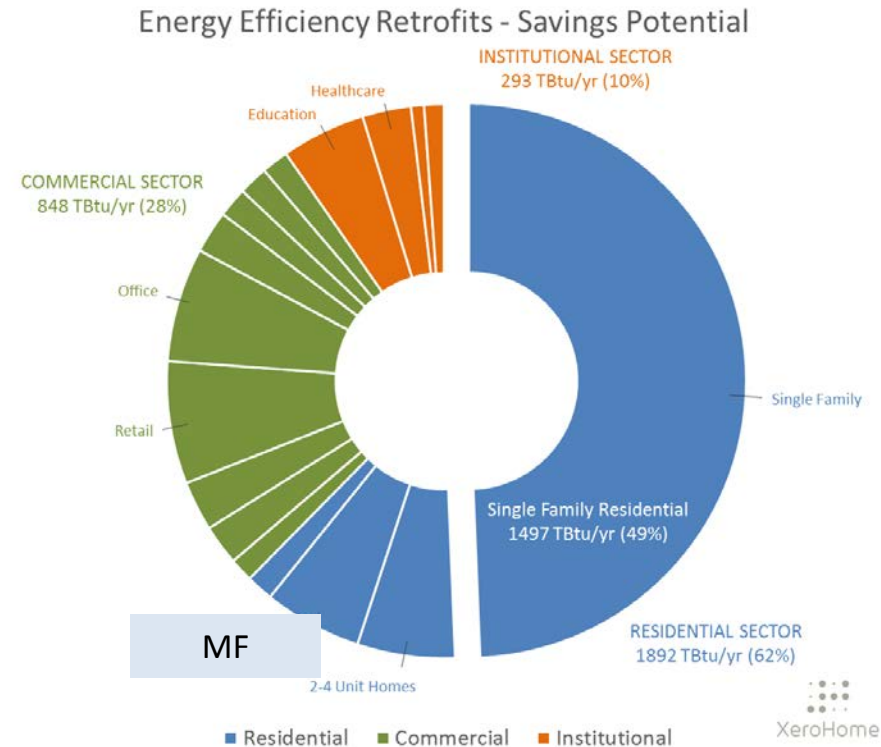
Codes and Standards Enhancement (CASE) study in process on creating a Multifamily chapter in California's Title 24

U.S. Residential (Blue Section):

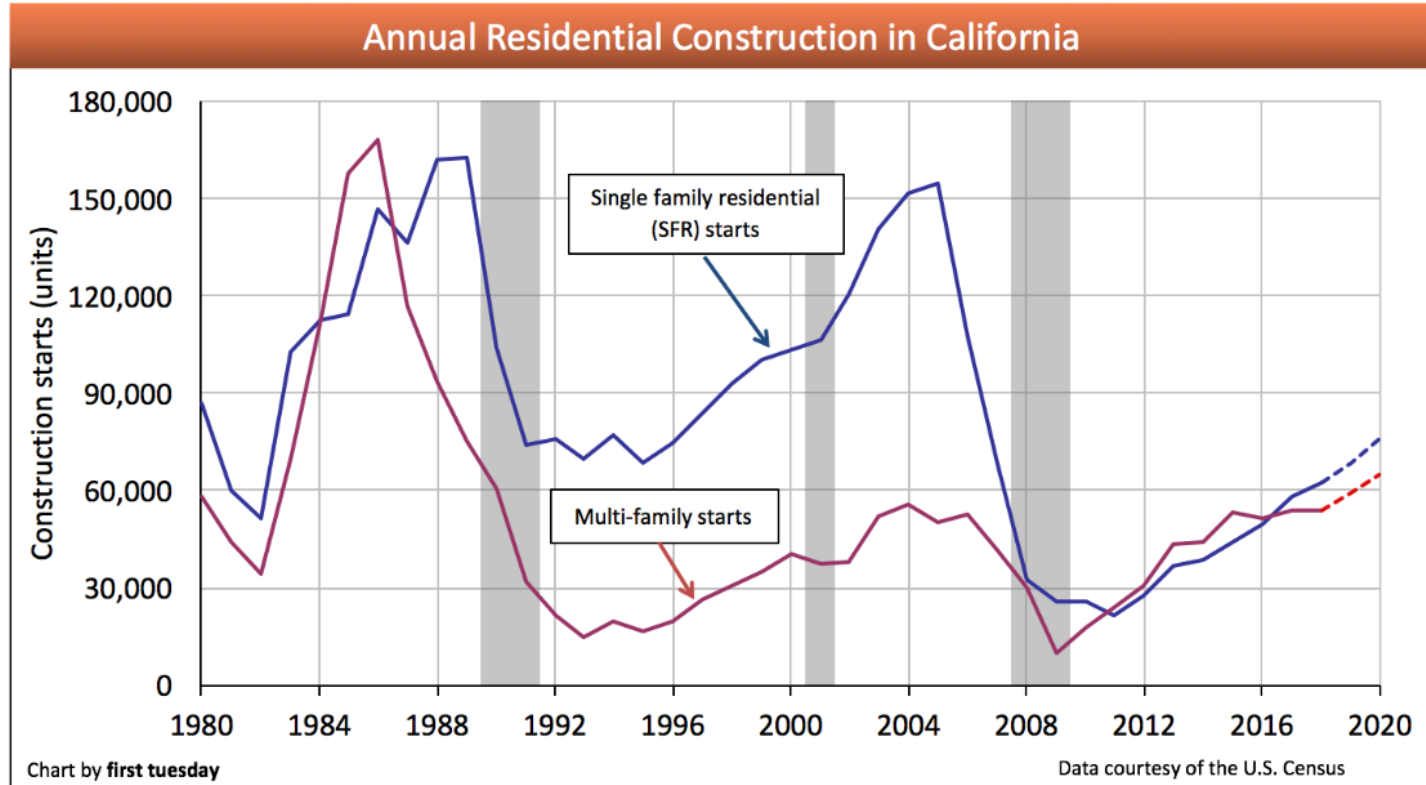
79% of Building Stock Area



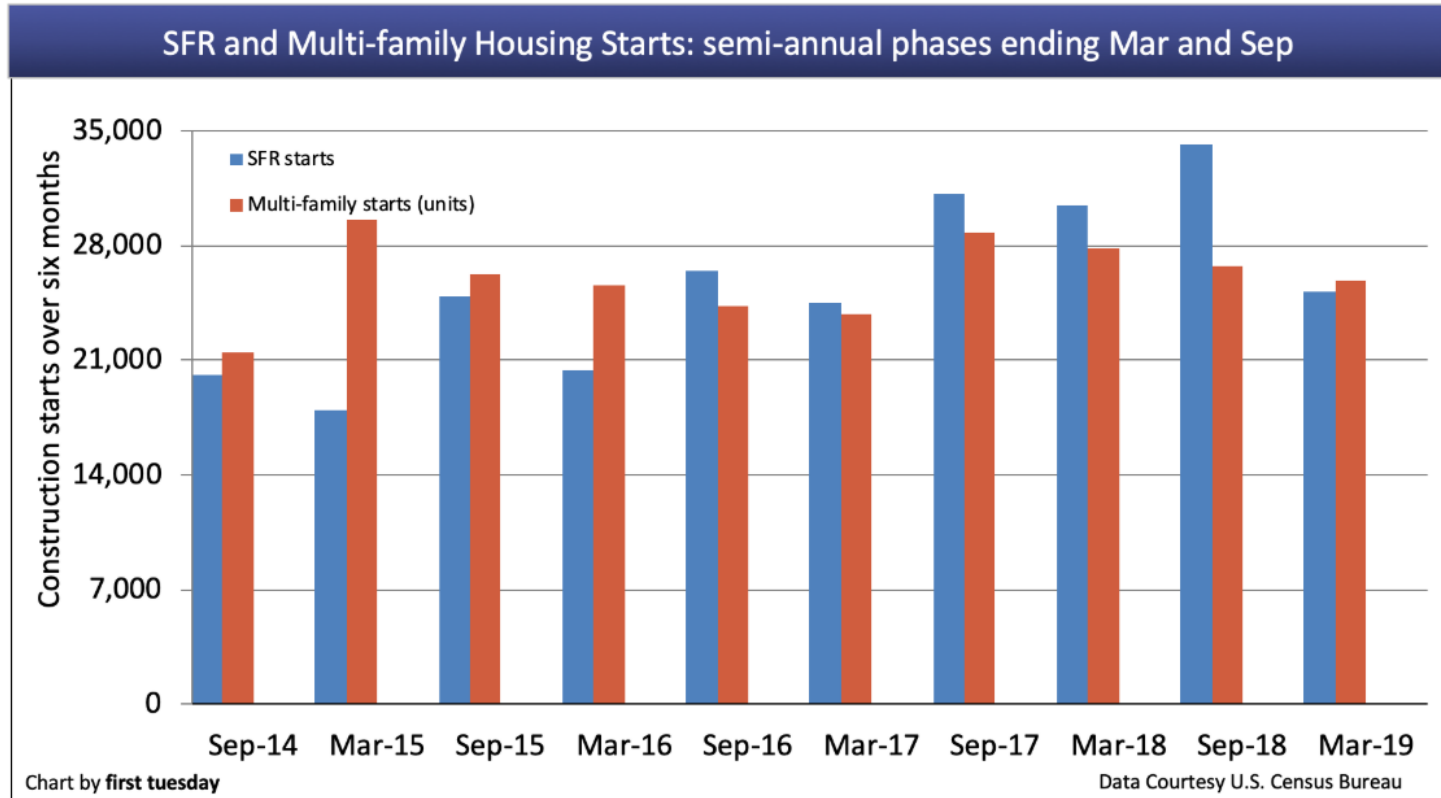
62% of Retrofit Savings Potential



Know the CA Trends: need remains



Know the CA Trends: -17% SFR, -7% MF over 2018



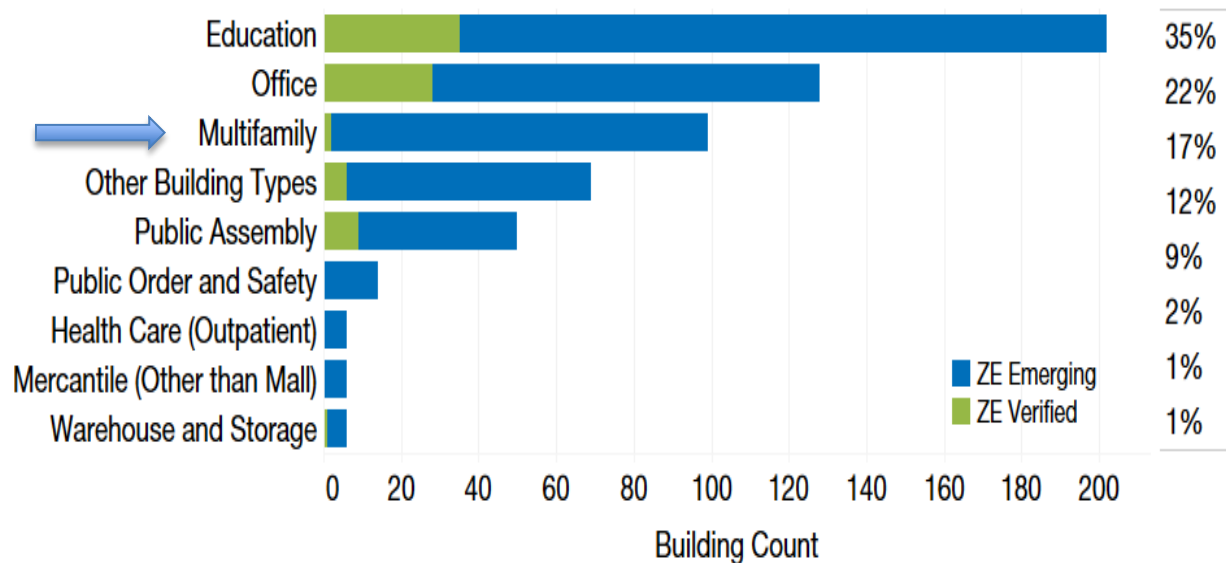
Affordability and Energy Trends

- 50% of renters are “rent burdened” and renters grew 19% from 2005-2016
- Affordable Fannie Mae-financed units dropped 60% nationally in 2010 to 2016
- Vacancy rates remain below 5% despite construction boom - little market incentive to improve energy efficiency
- Utility costs are still a key affordability and energy-equity issue



Trends in MF *Getting to Zero Energy*

Building Type Breakdown



47 of 100
Multifamily Zero
Energy Buildings
are in CA

Scaling Zero Energy in California

Developers of Zero Energy

Neighborhoods

- Meritage City Square
Irvine, CA
- Meritage Sierra Crest
Fontana, CA
- De-Young Properties Envision
Clovis, CA
- Mutual Housing
Spring Lake, CA

Cities with Zero Energy Multifamily Projects

Arcata	Guadalupe	Paso Robles
Atascadero	Hesperia	Placerville
Calistoga	Hollister	Sacramento
Carlsbad	Lancaster	San Diego
Carson	Live Oak	San Francisco
Castroville	Los Angeles	Santa Maria
Cloverdale	Mountain View	Selma
Davis	Oakland	Sonoma
Desert Hot Springs	Ontario	Wasco
Dixon	Oxnard	Watsonville
Eureka	Palm Desert	Williams
Fort Bragg	Pasadena	Winnetka
Fortuna		Woodland

All Electric Trends – CA Universities



UC Santa Cruz Student Housing West

750,000 sf, 3,000 beds, ALL Electric

HED Architects, Interface Engineering

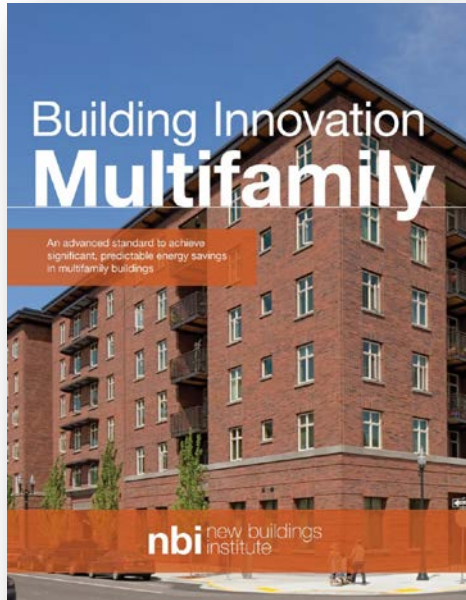


UC Riverside Dundee Residence Hall

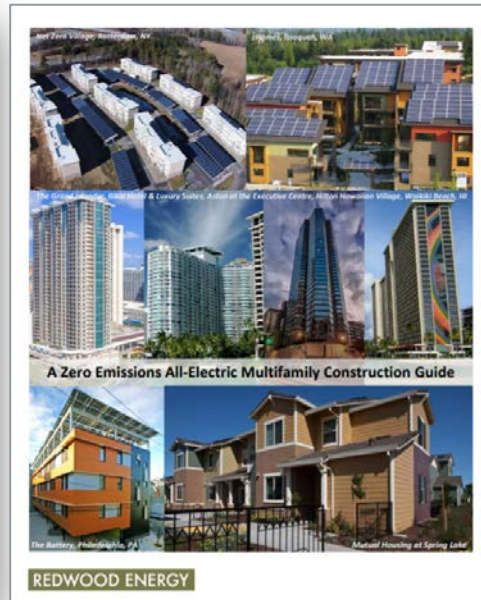
Includes all-Electric heating & cooling

SCB Architects, Interface Engineering

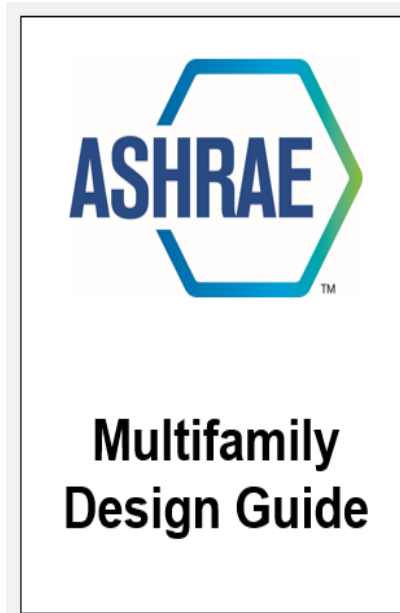
Multifamily Guidance Resources



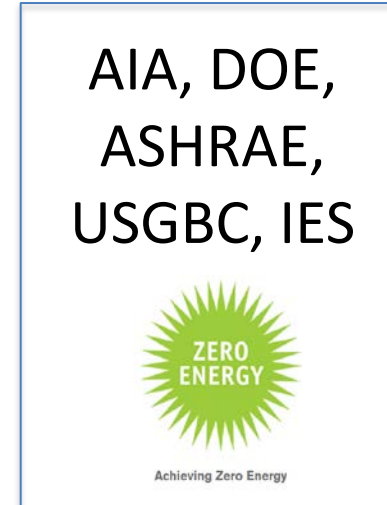
NBI MF Guide
Available Now



Redwood Energy
All-Electric MF Guide
Available Now



Due Q1 2020



Advanced Energy
Design Guide -
Development start
in Q3 2019

Thank you!

Cathy Higgins

Research Director

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