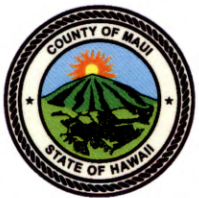


2015 International Energy Conservation Code

Maui County Council Presentation
January 29, 2019



David C. Goode, Acting Director of Public Works
Glen Ueno, DSA Administrator
Jarvis Chun, DSA Supervising Building Plans Examiner

1

Background - State Building Code

- ❖ Act 82, Session Law Hawaii, 2007 created the State Building Council.
- ❖ The purpose of the Council is to establish a state building code through timely adoption of national codes that would include the latest fire code, building codes, plumbing code, electrical, and energy conservation code.

Slide 2

CE1 Have the 4 counties code sync to help desginers and countractors
County Employee, 1/28/2019

Background - State Building Code

- ❖ Hawaii Revised Statutes (HRS), Section 107-28(a), states in part “... Each county shall amend and adopt the Hawaii state building codes and standards listed in section 107-25, as the referenced Hawaii state building codes and standards for its respective county building code ordinance, **no later than two years after the adoption of the Hawaii state building codes.**”
- ❖ HRS, Section 107-28(b), states “If a county does not amend the Hawaii state building code within the **two-year time frame**, the Hawaii state building codes shall become applicable as the **interim county building code.**”

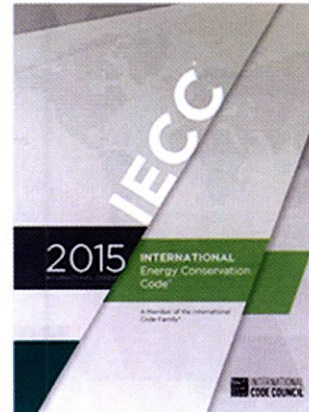
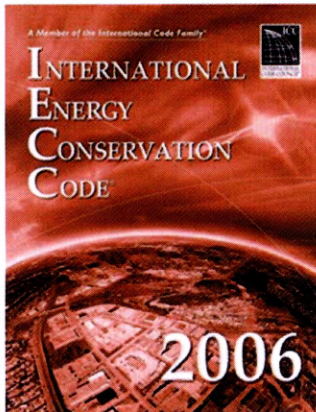
Background - State Building Code

- ❖ On March 20, 2017, Governor David Ige signed the Hawaii Administrative Rules (HAR) Chapter 3.181.1 adopting the 2015 International Energy Conservation Code with amendments which became effective March 31, 2017.

Proposed Code Adoption

Delete the **2006 IECC**
effective 12/20/2009

Adopt the **2015 IECC** with
State & County amendments



2015 IECC Provisions & Format

- ❖ The IECC is one of a collection of codes published by the International Code Council.
- ❖ The IECC contains two separate sets of provisions.
Commercial: **C** in front of the sections
Residential: **R** in front of the sections
- ❖ The Residential Provisions includes detached one- and two-family dwellings and townhouses, Group R-2, R-3, R-4 buildings three stories or less in height. (building code occupancies)

Slide 6

CE2 Residents are primarily permanent in nature.
County Employee, 1/28/2019

Significant Amendments

C102.1 & R102.1

- ❖ The code official may allow lower energy conservation standards for nonstandard type building materials, special methods of construction, and geographical location.
- ❖ Examples: single wall construction, open beam roof/ceilings, buildings that don't receive direct sunlight.



Significant Amendments

Section C402.2.3 R402

- ❖ Allows mass walls (concrete & CMU walls) 6” or greater to be exempt from the thermal envelope insulation requirements.

Section C402.5, R401.2.1, & R402.4.1.2

- ❖ Blower door testing is optional verses required.

Significant Amendments

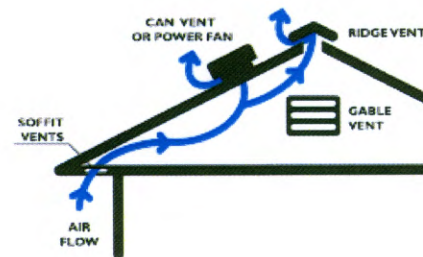
Section C407.3, C407.4, C407.4.1, C407.6, C407.6.1, C408.2, C408.2.4.1, C408.3.1

- ❖ Removes the code official from receiving or approving reports and commissioning of the building.
- ❖ The design professional, contractor, and owner working together to ensure performance goals are met.

Significant Amendments

Section C503.3.1 & R503.1.1 Existing Buildings

- ❖ For existing buildings, roof replacement of an uninsulated roof shall be provide one upgrade.
 - Energy star compliant roof
 - Radiant barrier
 - Attic ventilation



Significant Amendments

Section R301 & R401.2.1

- ❖ New **Tropical Zone** climate zone. Provides a new residential compliance method.
- ❖ The code recognizes this climate zone is different in climate, construction techniques, and energy costs.
- ❖ Previously Hawaii was grouped with the southern U.S.

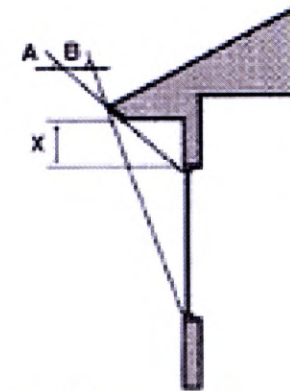
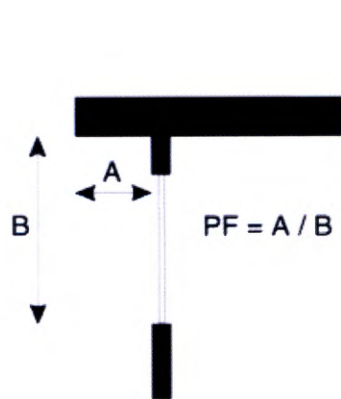
Specific conditions:

- ❖ Exterior walls are not required to be insulated.
- ❖ Not more than one-half of the dwelling unit is conditioned.
- ❖ Requires a ventilation area of 14% of the floor area.
- ❖ Ceiling fan rough-in in bedrooms and larger rooms.

Significant Amendments

Section R401.2.1 (Continued)

- ❖ Solar Heat Gain Coefficient (SHGC) for glazing is based on a projection factor. (roof eave shading)



Overhang Projection Factor
The projection factor is the overhang projection divided by the distance between the bottom of the window and the bottom of the overhang.

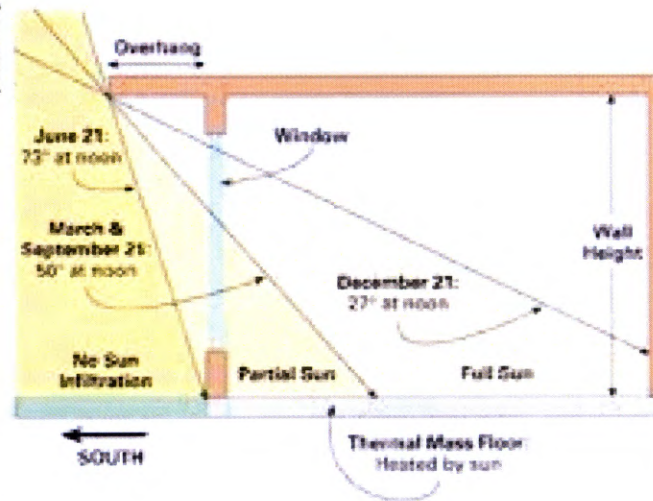


Image Courtesy of www.solar-4u.com

IMPORTANT STAKEHOLDERS

Maui American Institute of Architects (AIA)

Construction Industry of Maui (CIM)

Hawaii State Energy Office, DBEDT

Hawaii Energy

Blue Planet Foundation (Via Doug McLeod, DKK Properties, LLC)

Frederick Redell, Maui County Energy Commissioner

**Hawaii Laborers & Employers Cooperation and
Education Trust Fund** (Peter Lee)

Masonry Institute of Hawaii (Gino Soquena, Director)

Summary

The intent of many of the proposed county amendments is to provide the design professional added flexibility and lower construction costs.

MAHALO

Department of Public Works

Development Services Administration