

NASEO Buildings Meeting Arlington, VA September 8 -9 , 2025

**Florida's progress on improving
resiliency, energy efficiency and
affordability, both in the energy code
and in other programs**

Rob Vieira

Florida Solar Energy Center, University of Central Florida



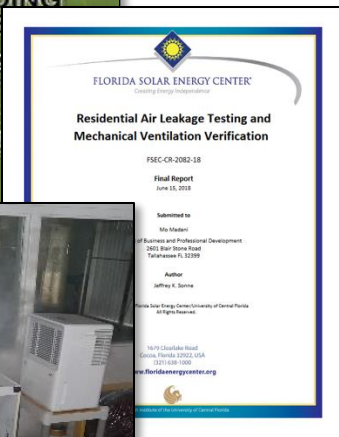
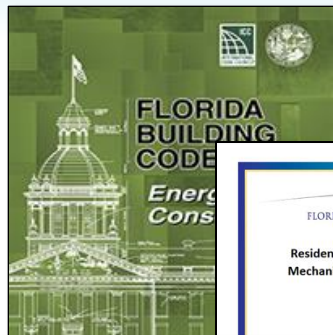
FSEC Buildings Research



Energy Code Research for Florida Building Commission

Creators of Performance Codes and Standards

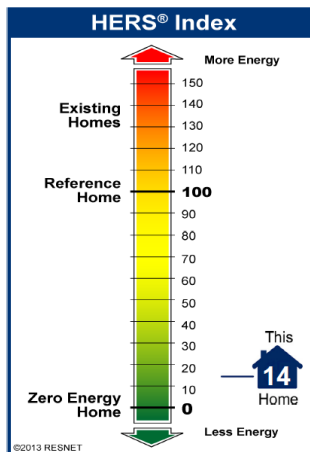
Developers of Software for Building Analysis



HERS RATING CERTIFICATE | RESNET Registration
[HOME ENERGY RATING SYSTEM] | Nationally recognized system for inspecting and rating homes

HERS INDEX SCORE | 14

ANN SAVI



EnergyGauge®
Energy and Economic Analysis Software

Annual Energy Cost
Electricity
Natural Gas
LPG
Fuel Oil
On-Site Power

Annual Energy Use
Electricity (kWh/y)
Natural Gas therms/y
LPG (gal/y)
Fuel Oil (gal/y)
On-Site Power (kWh/y)

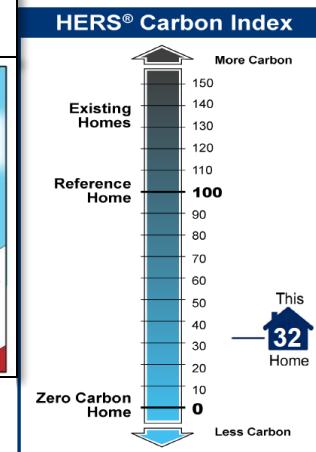
Annual Emissions
CO₂ (tons/y)
SO₂ (lb/y)
NO_x (lb/y)



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the score, the more efficient the home is.

HERS CARBON INDEX SCORE | 32



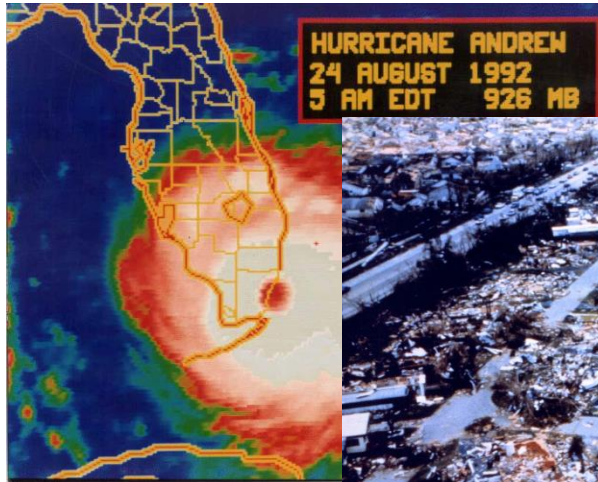
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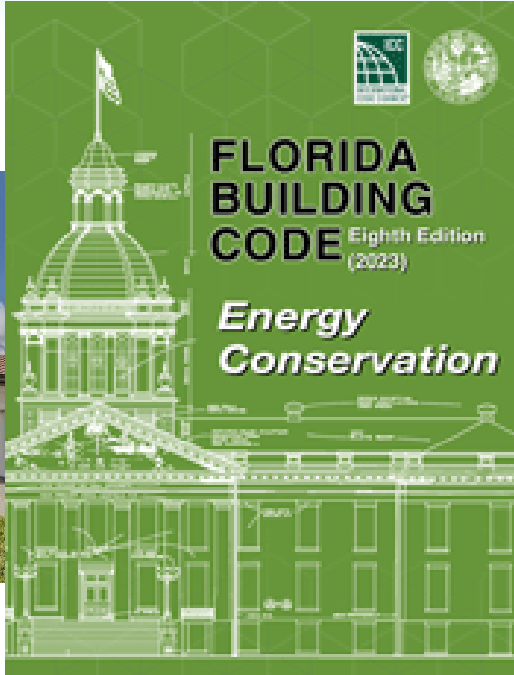


Resiliency and Codes: Often Reactionary

- Hurricane Andrew 1992 –the most costly U.S. hurricane to date at that point



Florida Building Code

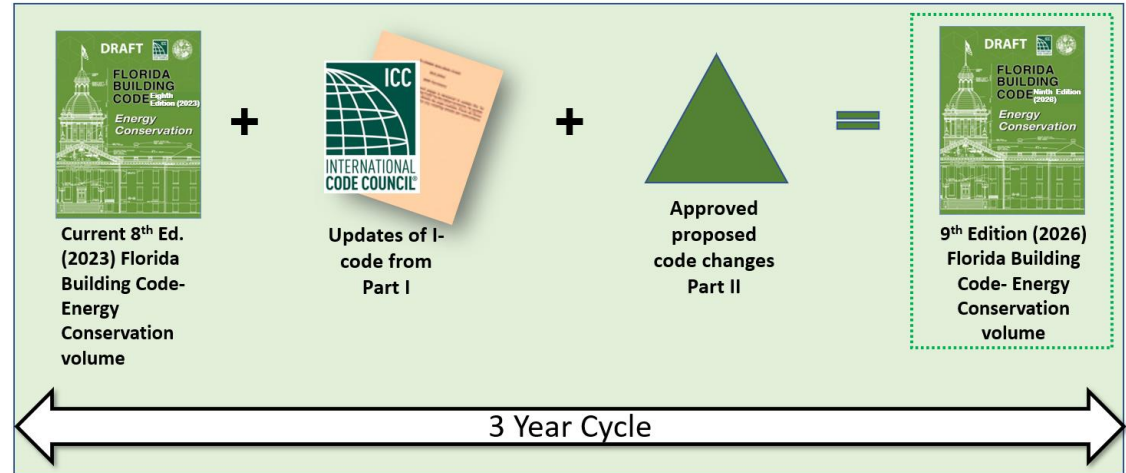


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Florida Building Code – Energy Conservation (FBC-EC) Code Adoption Process

- 3 year code cycle
- Existing Florida code as basis
- 2 code development paths:

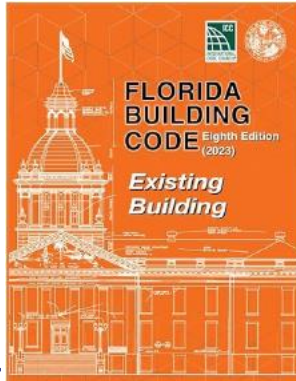


1. Review of model code in effect (IECC) for administrative changes
2. Proposed stringency modifications to foundation code (FBC-EC volume in effect)

- Three 45-day public comment periods throughout process

Surfside Condo Collapse – 2021: 98 deaths

- Mandatory evaluations now at 30 years
- Outcry of costly repairs forcing income limited residents out of homes
- Who wins, safety or condo owners?



Resiliency Starts at Larger than the Building Level



Florida started regulating water retention and detention areas decades ago. Builders now use them as selling features.

More Programs than Building Code are Needed for Robust Resiliency and Recovery



**MY SAFE FLORIDA HOME PROGRAM
IS NOW ACCEPTING APPLICATIONS FOR**

- Group 1, 2 & 3 Grant Applicants
- First-time FREE Wind-Mitigation Inspections

(Remember the program is a two-step application process)

MY SAFE FLORIDA HOME VIDEOS



**LET'S MAKE
YOUR HOME
STRONGER**

VISIT
My Safe FL Home

LEARN MORE

Mitigation Upgrades that Can Reduce Insurance Costs

REBUILD FLORIDA

WAS YOUR HOME DAMAGED BY HURRICANE IAN?

[FIND ASSISTANCE OPTIONS HERE](#)



Florida Green Home
Certification Standard

REFERENCE GUIDE V13



FLORIDA GREEN BUILDING COALITION

Threats to Building Structures/Health

- Rain
- Floods, including sea level rise
- Fires
- Extreme Heat
- Extreme Cold
- Lightning



Photo By Liz Roll - This image is from the FEMA Photo Library (obsolete as of 2019).

- High Winds
- Termites
- Earthquakes
- Pipe Leaks
- Mold
- Droughts (threats to food supply) health)



Photo By Infrogmation of New Orleans



Defining Resiliency –Terms Used

- Surviving
- Recovering
- Sustaining
- Maintaining
- Fortifying
- Redundancy



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After the Event –if Power is Out

- Choices
 - Stay/go elsewhere temporarily where there is power
 - With solar at home –power choices
 - Daytime only small/moderate loads
 - Full dedicated battery backup
 - EV battery
 - No solar – use EV or fueled generator

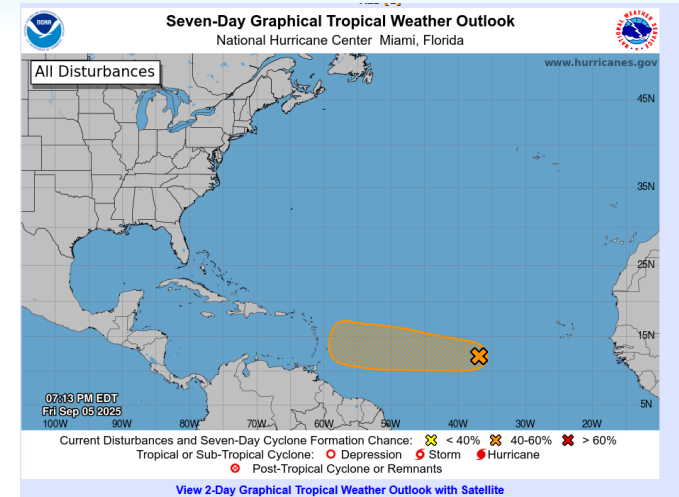


Photo by [Moritz Fuchs](#) on [Unsplash](#)

Thank You

Summary:

- Resiliency is bigger than building
- Often real action happens after catastrophe
- Resiliency has many facets and includes research and maintenance
- More Programs than Building Code are needed for robust resiliency and recovery
- Backup power – there are alternatives to generators and expensive dedicated battery packs



Sept. 6, 2025

