



America's Model Energy Code Webinar

March, 2016

Who we are

An aerial photograph of a volcanic landscape, showing a dark, rocky terrain with a river and a lake. The image is overlaid with a complex network of glowing white and yellow lines, resembling a global communication or data network. The lines radiate from various points across the landscape, creating a sense of interconnectedness. The background is a gradient of blue and yellow, suggesting a sky or a light effect.

ICLEI is an energetic and flexible movement, an effective sustainable and environmental agency, a dedicated membership organization which enables and guides governments in implementing local and global sustainability targets.

Let's Put America's Building Energy Code on a Glide Path of Steady Gains



THE POWER IS IN YOUR HANDS!

**America's Building Energy Policy
Determined by Local Government**

WILLIAM D. FAY
Executive Director





America's Big Unsung Secret:

Since 2008, Local Governmental
Officials Have (*almost*)
Singlehandedly Boosted the
Efficiency of America's Home &
Commercial Building Energy Code
by **38%**

Buildings Are The “Elephant In The Room” of National Energy Policy

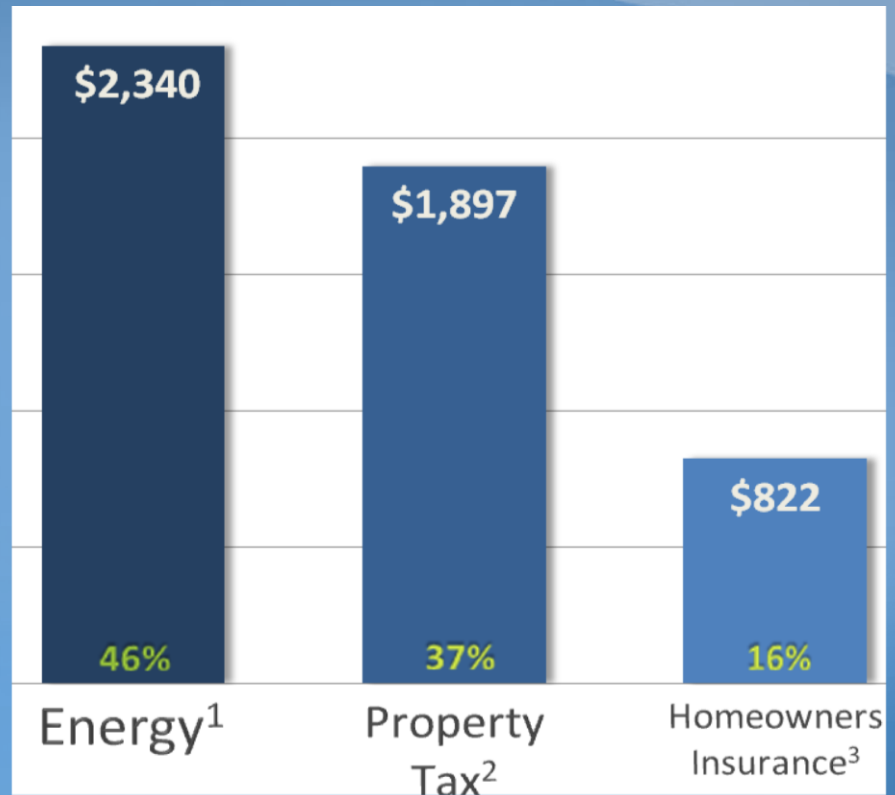
America’s Homes & Commercial Buildings use:

- ✓ 42% of all energy
- ✓ 54% of natural gas
- ✓ 71% of electricity

... And they account for 39% of US manmade GHGs



**AFTER MORTGAGE,
PRINCIPAL &
INTEREST,
ENERGY IS THE
HIGHEST COST OF
HOME OWNERSHIP**

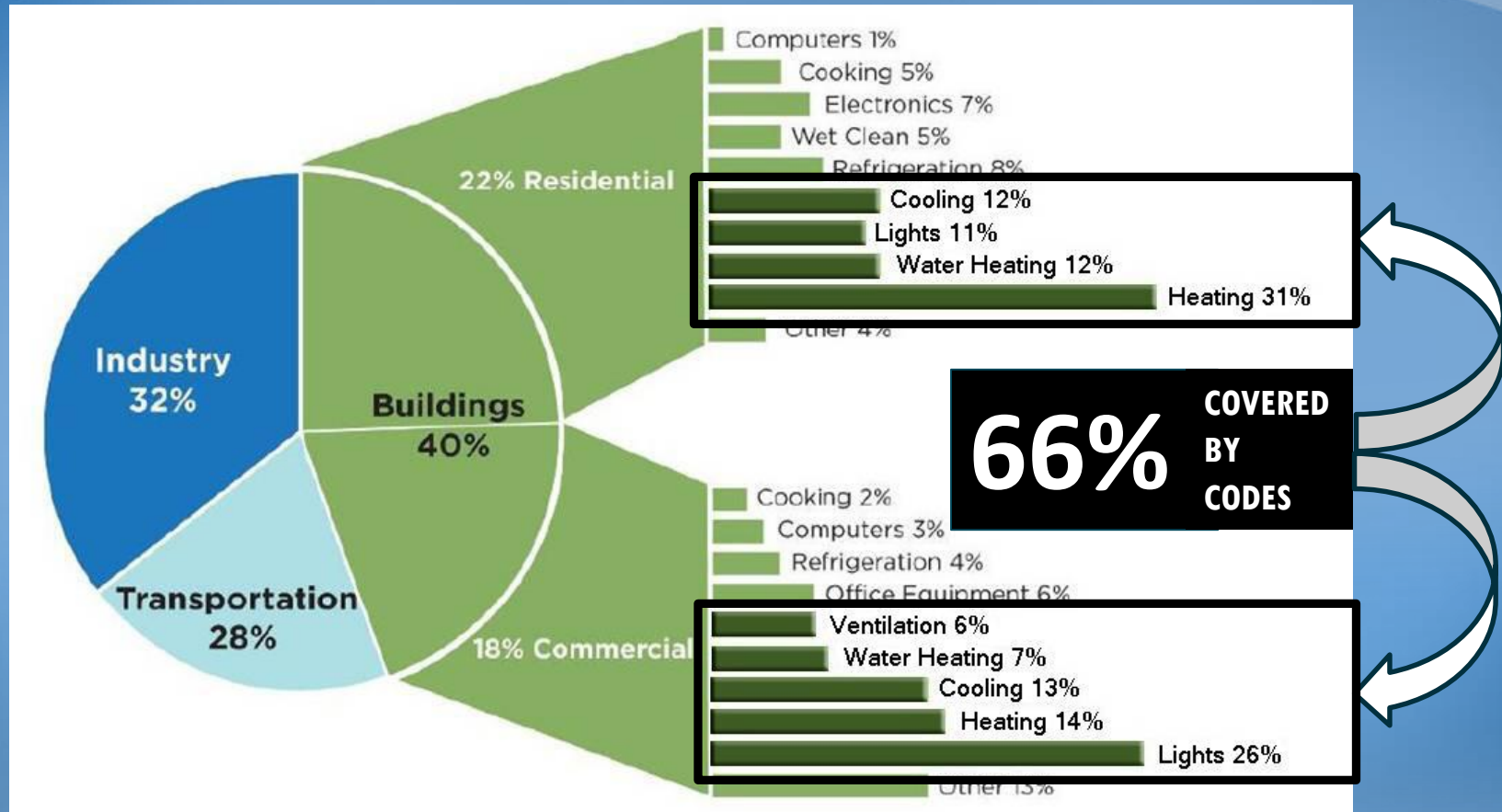


**Average U.S. Homeowner Costs
2007-2008**

Buildings Last 70, 80, Even 100 Years

- Failing to address building energy efficiency will hinder sound national energy efficiency goals for 4-5 generations.
- “Build It Right the First Time” – Efficiency retrofits far more costly than the same improvements at initial construction.
- At today’s energy costs, an average home’s energy bills will total \$170,000!!!

Codes Are Essential To Reducing Wasted Energy From Buildings



Codes Are Tedious, Technical . . . Boring



Are You Bored Yet?

2008: Mayors Join Campaign for Dynamic IECC Efficiency Gains

Unanimously Adopt Resolutions: 2008, 2010, 2013

- Endorse “30% Solution” & “Builder Flex”
- Oppose Rollbacks and Trade-Offs that Weaken the Stringency of Gains
- Encourage Municipal Support for All Eligible Code Officials to
 - Attend code hearings and
 - Vote in favor of continued efficiency gains for America’s model energy code, the IECC.



THE UNITED STATES CONFERENCE OF MAYORS

The Voice of America’s Mayors in Washington, DC

Codes Stabilize Grids; Delay the Need For New Power Plants

The 2011 Prediction:

Continued savings of the magnitude of recent efficiency gains in building energy codes and appliance standards

“will completely offset the anticipated growth in demand in the residential, commercial, and industrial sectors combined, eliminating the need for additional power plants to serve these sectors through 2025.”

Institute for Electric Efficiency White Paper May 2011

The 2016 Evidence:

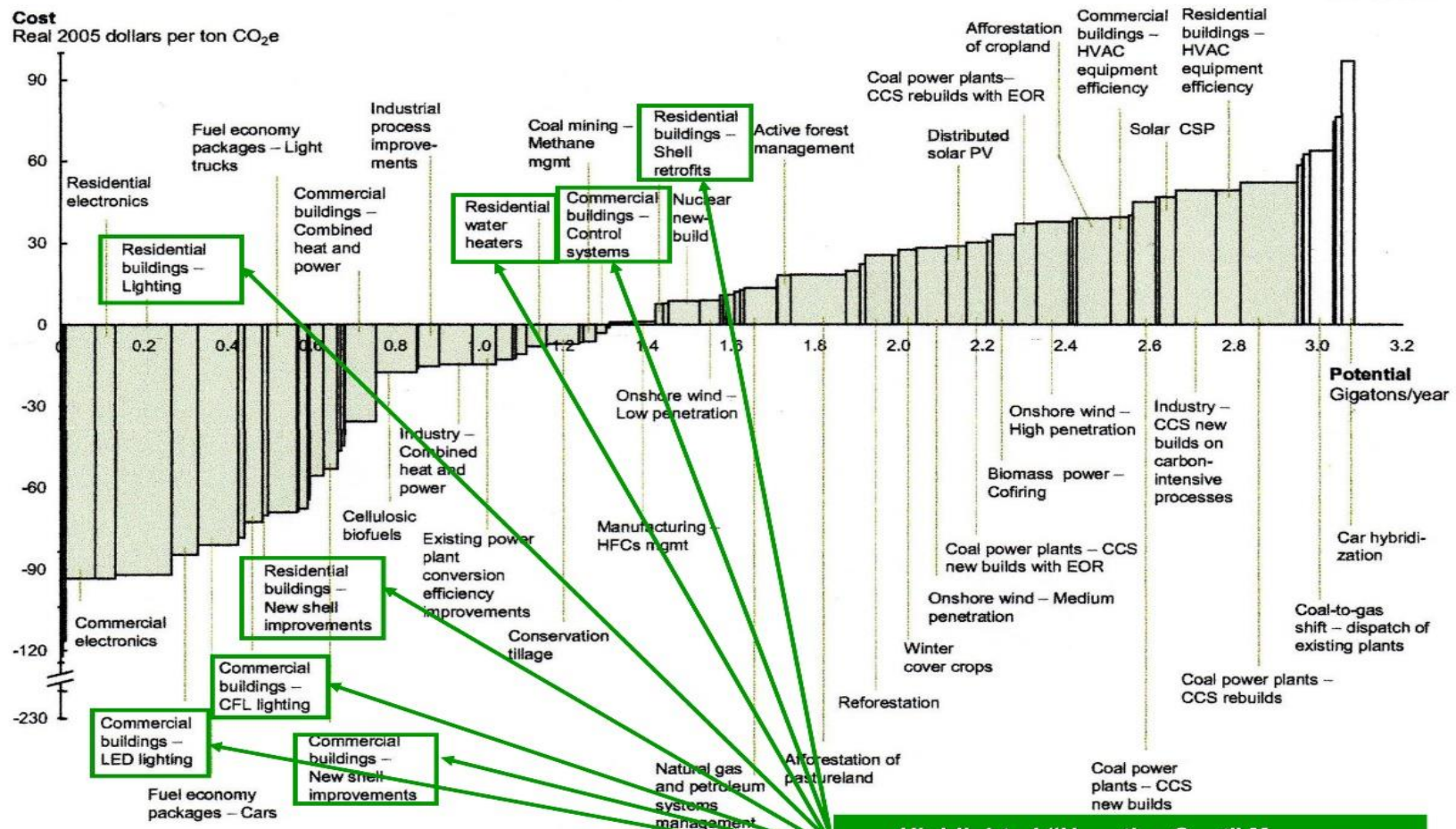
“Improvements in energy efficiency for buildings & appliances appear to have broken the traditional connection between electricity demand & economic growth.”

Duke Energy CEO Lynn Good, 1/6/2014 Financial Times interview



Codes Are The Most Cost Effective Means of Reducing GHGs

U.S. MID-RANGE ABATEMENT CURVE – 2030



Source: McKinsey analysis

Highlighted "Negative Cost" Measures Addressed by Building Energy Codes

Codes Put Thousands in Homeowner Wallets

DOE study uses a life-cycle approach, balancing first costs against longer-term energy savings over typical 30-year mortgage – but savings continue for decades more

IECC Climate Zone	30-Year Life-Cycle Savings (\$US)		
	IECC 2009 vs. 2006	IECC 2012 vs. 2009	IECC 2012 vs. 2006
1	\$2,877	\$5,347	\$8,256
2	\$2,443	\$2,280	\$4,763
3	\$1,944	\$3,613	\$5,621
4	\$2,259	\$5,320	\$7,625
5	\$2,466	\$6,717	\$9,189
6	\$3,094	\$8,183	\$11,307
7	\$3,622	\$9,502	\$13,166
8	\$9,147	\$23,900	\$33,105

Your Window of Opportunity



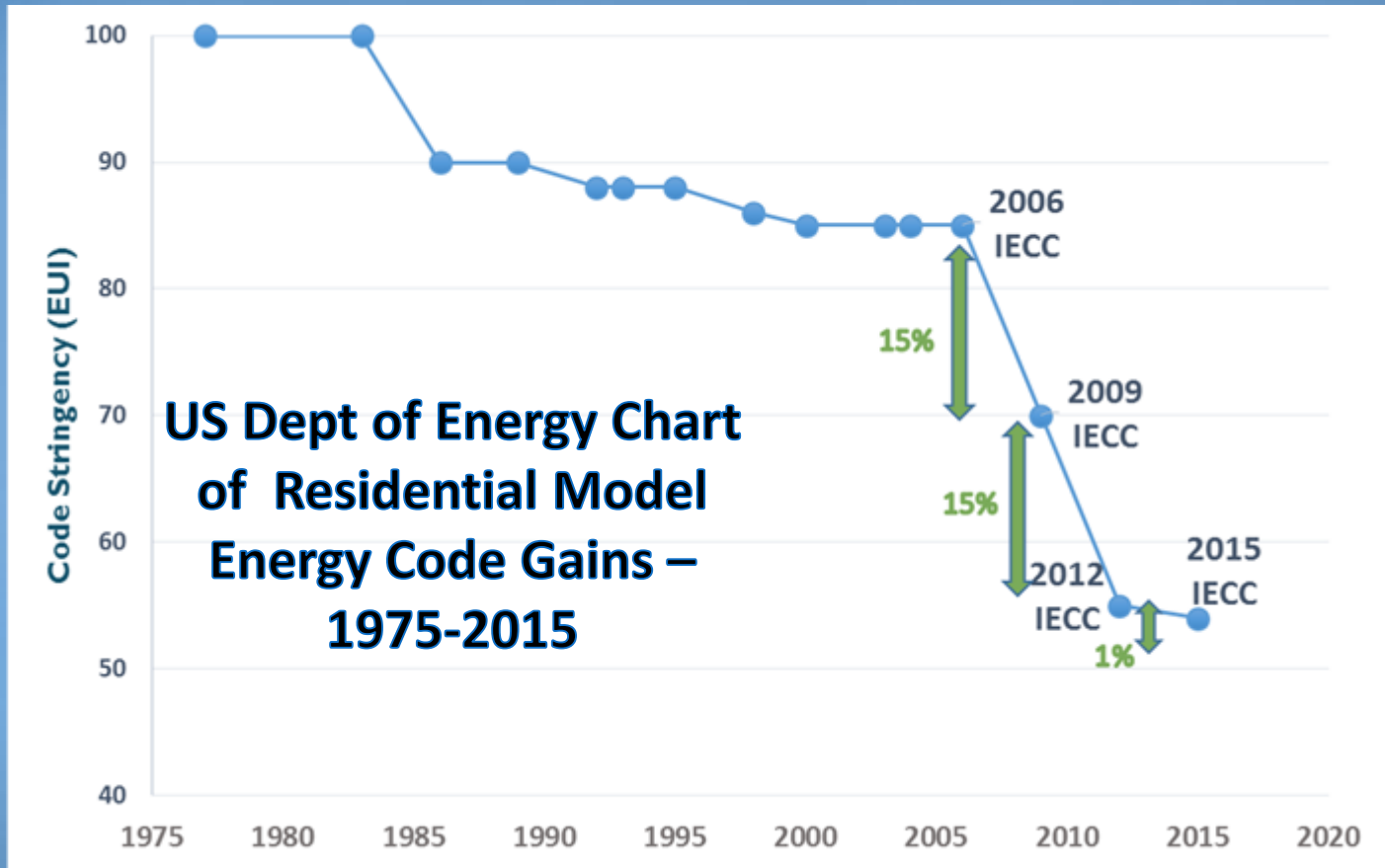
Put the 2018 and Future IECC Updates on a
Glide Path of Steady Building Efficiency Gains



2016 Success . . . And How We Will Get There

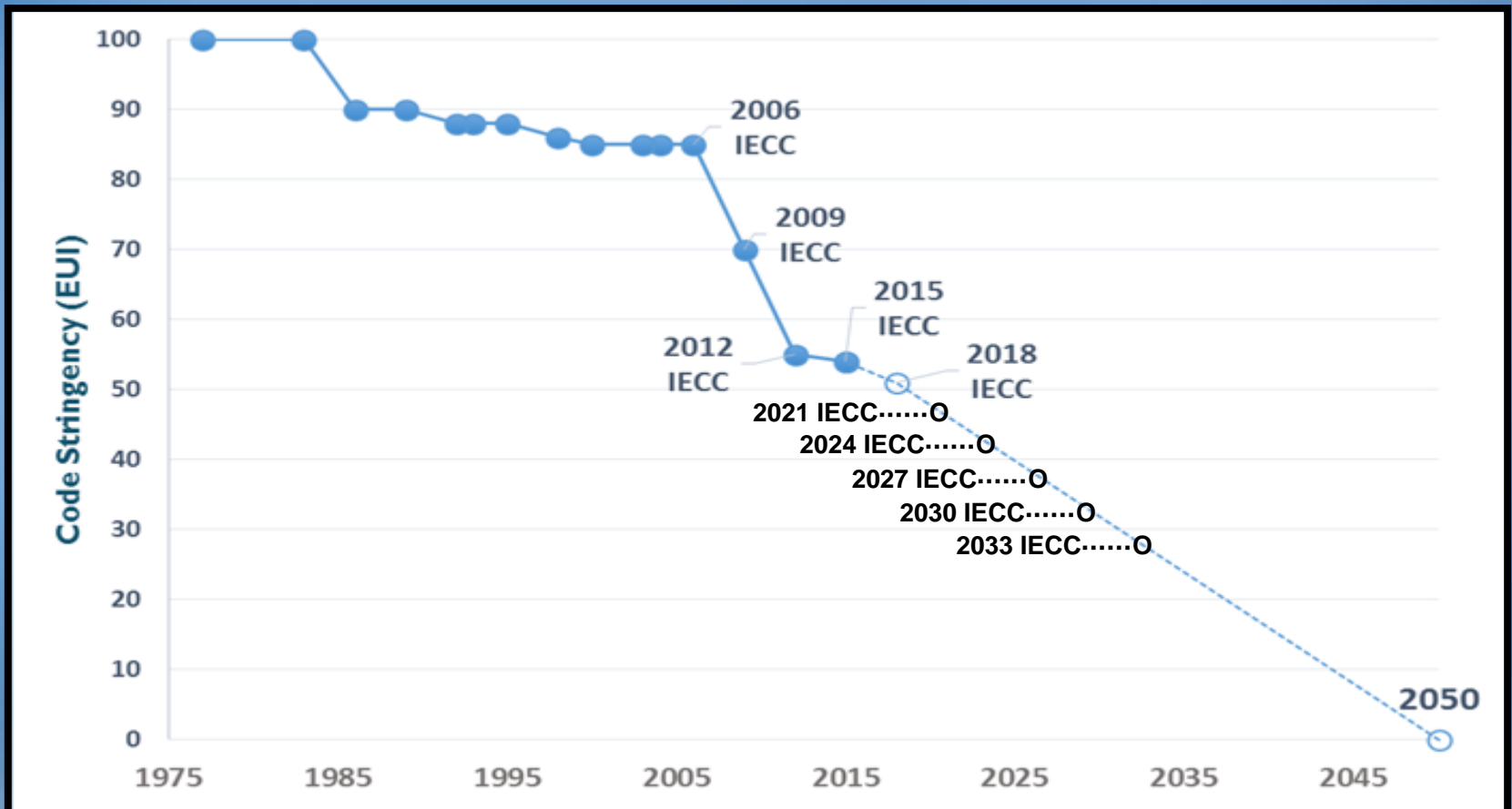


Progress – 38-54% Efficiency Boost

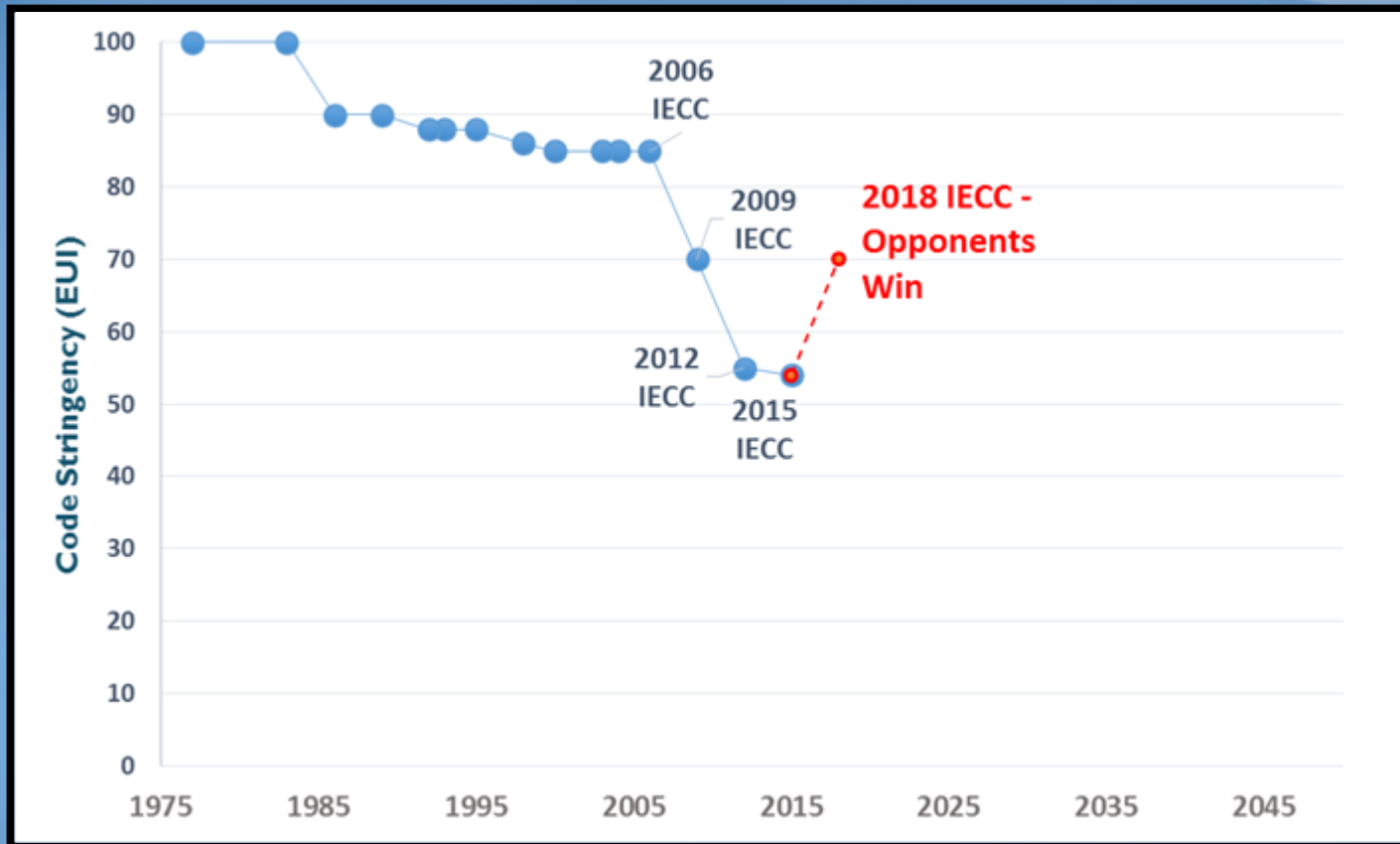


A Glide Path for Net Zero by 2050

Modest 5% Gains Every 3 Years . . .
No Rollbacks; No Trade-Offs



OR . . . Rollbacks/Trade Offs Win



Code Development Is Trench Warfare: Opponents Want Weaker Codes

Powerful Code Opponents Include:

- Powerful Home Builder Associations resistant to change
- Manufacturers of inferior products
- Code officials who don't see energy as Health, Safety & Welfare



In the Long Run: The IECC Is In Your Hands!





Why We're Here Today:

**It Just Got Easier for Local
Governments to Vote for
Building Energy Efficiency!**



Voting with cdpACCESS

cdpACCESS™



- Only ICC Governmental Member Voting Representatives can vote
- Allows many more GMVRs to determine the outcome of the 2018 IECC *without travelling* (saving time and money)
- Committee Action Hearings (CAH) and Public Comment Hearings (PCH) still set agenda for voting – GMVR testimony posted on cdpACCESS site

Simple 2016 Goals for the 2018 IECC

Achieve a minimum 5% efficiency boost in the 2018 IECC over the 2015 IECC

- *Put 2018 and future IECCs on a glide path of steady efficiency improvements*
- *Defeat efficiency rollbacks and envelope trade-offs*

Increase cdpACCESS voting participation by local and state governments

Urge elected officials to link code official voting to their jurisdiction's energy and environmental policies

Only “Governmental Members” Vote on the 2018 IECC

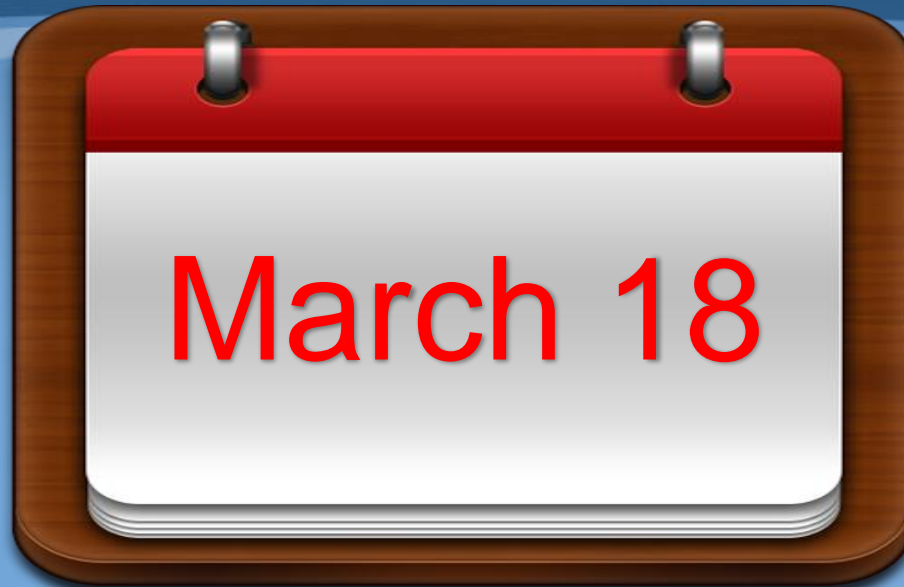
- “**2.1.1 Governmental Member** - A Governmental Member shall be a governmental unit, department or agency **engaged in the administration, formulation, implementation or enforcement of laws, ordinances, rules or regulations relating to the public health, safety and welfare....**”
- “**2.1.1.1 Governmental Member Voting Representatives** - ...Governmental Member Voting Representatives shall be....employees or officials of the Governmental Member or departments of the Governmental Member, provided that each of the designated voting representatives shall be **an employee or a public official actively engaged either full or part time, in the administration, formulation, implementation or enforcement of laws, ordinances, rules or Rev Feb-2013 2 regulations relating to the public health, safety and welfare....**”

Only “Governmental Members” Vote on the 2018 IECC

The Cost and # of Eligible “Governmental Member Voting Representatives (GMVRs)” depends on population:

<u>Population</u>	<u># of Eligible Votes</u>	<u>Cost</u>
0-50,000	Four (4)	\$ 135
50,001-150,000	Eight (8)	\$ 240
150,001+	Twelve (12)	\$ 370

Check List – ITEM 1



*JOIN or RENEW YOUR JURISDICTION'S ICC
MEMBERSHIP BY **MARCH 18, 2016** TO
ENSURE THAT YOUR REPRESENTATIVES
CAN VOTE TO UPDATE THE 2018 IECC.*

Check List – ITEM 2



**Make Support For Steady IECC Gains
The Policy Of Your Jurisdiction . . .**

*Tell Your ICC Voting Representatives
to Vote in Support of Efficiency Gains and Against
Proposals That Roll Back Efficiency*

Check List – ITEMS 3, 4, 5



8/31

Submit Names of Your Voting Representatives (GMVRs) to the ICC



10/19-25

Send GMVRs to participate in Public Comment Hearings in Kansas City



~11/8-21

Make sure all GMVRs vote using cdpAccess to promote efficiency!

A Simple, USCM Endorsed Yardstick for EECC Voting Recommendations

SUPPORT Proposals that Boost Efficiency Using Readily Available Technology.

OPPOSE Proposals that Roll Back or Trade Off Efficiency Gains.

Energy Efficient Codes Coalition – Public Comment Hearing RE Recommendations

Prop. #	Standing Motion	EECC Recommended Action	Original Proposal Summary	EECC Evaluation & Summary of Public Comments with Modifications	EECC Notes
RE7	D	Support D	Replaces specific interior design temperatures with a reference to ACCA manual J, allowing additional flexibility in design.		Current code language promotes better equipment sizing than the proposed change.
RE8	D	Oppose D	Requires all new 1- and 2-family and multifamily dwellings with roofs oriented between 110°-270° to have <i>solar ready zone</i> of ≥300 sq ft or ≥150 sq ft for homes under 2000 square feet. Exceptions for buildings with on-site renewables or roof areas shaded >70% of the time. Construction documents must indicate the zone and pathways for conduit, pre-wiring, or plumbing chase and the electrical service panel must reserve space for a breaker. Exception for buildings with installed pre-plumbing or chase from zone to water heating system.	PC – Removes requirement to have solar ready zone and to reserve space in electrical service panel, but maintains requirements to document solar-ready portions of the roof, keep these zones free of obstructions, and document conduit pathways and roof loads.	Agree
		Support AM PC			
RE9	D	Oppose D	Requires all new 1- and 2-family and multifamily dwellings with roofs oriented between 110°-270° to have <i>solar ready zone</i> of ≥300 sq ft or ≥150 sq ft for homes under 2000 square feet. Construction documents must indicate the zone and pathways for conduit, pre-wiring, or plumbing chase and the electrical service panel must reserve space for a breaker. Exceptions for buildings with on-site renewables or roof areas shaded >70% of the time.	PC1 – Moves solar ready provisions into a new appendix; adds an exception for buildings with <600 sq. ft. of solar ready zone that is unshaded for more than 70% of daylight hours. PC2 – Move solar ready provisions into a new appendix; adds a scoping exception for buildings with <600 sq. ft. of solar ready zone.	Agree
		Support AM PC1			NR

WE WILL PROVIDE SUPPORT!

Develop outreach materials

Host advocacy meetings and webinars

Training on use of cdpAccess

Provide voting guide

Organize Voting Parties

WHAT CAN YOU DO?



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THANK YOU!

<http://energyefficientcodes.org/POWER>



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