ENERGY-EFFICIENT CODES COALITION
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IMPROVING AMERICA's MODEL ENERGY CODE:
The 2021 International Energy Conservation Code (2021 IECC)

Swiss-US Energy Innovation Days. Austin. October 6-9 2019

WHAT IS THE ENERGY-EFFICIENT CODES COALITION?

A growing group of building sector advocates and supporters committed to improving the energy efficiency of the **International Energy Conservation Code** and setting **America's model building energy code** on a **glide-path to net-zero energy construction**.

EECC's supporters include: businesses, trade associations, energy efficiency organizations, environmental groups, and consumer advocates that understand how homeowners, tenants, businesses, and state and local governments all benefit from steady increases in energy efficiency in the built environment.

EECC was originally established in 2007 by the Alliance to Save Energy.

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EECC's Guiding Principles

1. The 2018 IECC Is the appropriate foundation for future improvements to America's model energy code (the IECC).

2. For the 2021 IECC and its successors, a Glide Path of reasonable, but steady improvements in energy efficiency in each code cycle should be established.

3. No backsliding or rollbacks.

4. Simplicity, ease of enforcement, cost-effectiveness, longevity, comfort & energy/environmental benefits are also paramount considerations in evaluating each potential IECC code change.

5. The IECC should include a reasonable set of compliance options, but they must be at least as efficient as the Prescriptive path. A single simplified Prescriptive compliance path leads to greater compliance, enforcement and market transformation for residential and commercial construction.

6. Adopt "Trade-Ups," not "Trade-Offs."

7. Reject Residential equipment and related trade-off loopholes.

8. Maintain and improve the 2018 IECC Commercial provisions.

9. No product-specific provisions.

10. Independent testing, certification & labeling helps to ensure effective code compliance and enforcement.

11. Energy efficiency provisions for existing buildings should be as robust as the provisions for new construction, to the maximum extent feasible.

12. No pride of authorship.

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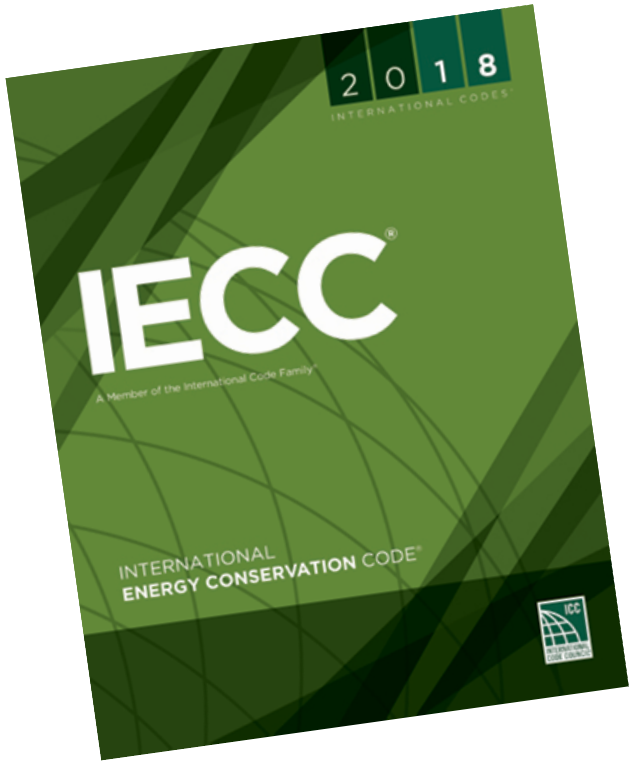
The BASICS of the IECC



There's no "national" U.S. building code

- States adopt own codes (in some states, cities adopt)

IECC is one of several building codes (ex: plumbing, electrical, accessibility, fire, mechanical, energy/IECC)

- **Most states adopt IECC**
- **All codes - updated every 3 years in national consensus** process administered by International Code Council (ICC)

IECC applies to:

- New residential and commercial buildings, and
- Significant remodels or additions

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IMPORTANCE OF THE 2021 IECC

eia Independent Statistics & Analysis
U.S. Energy Information Administration

Building Sector Energy Consumption

- About **40%** *of all U.S. energy*
- More than **70%** *of all U.S. electricity*
- About **40%** *of carbon emissions*

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Building Energy Codes Program

Cumulative savings from 2010 to 2040:

- **$126 billion** *energy cost savings*
- **841 MMT** *avoided carbon emissions*
- **12.82 quads** *primary energy savings*

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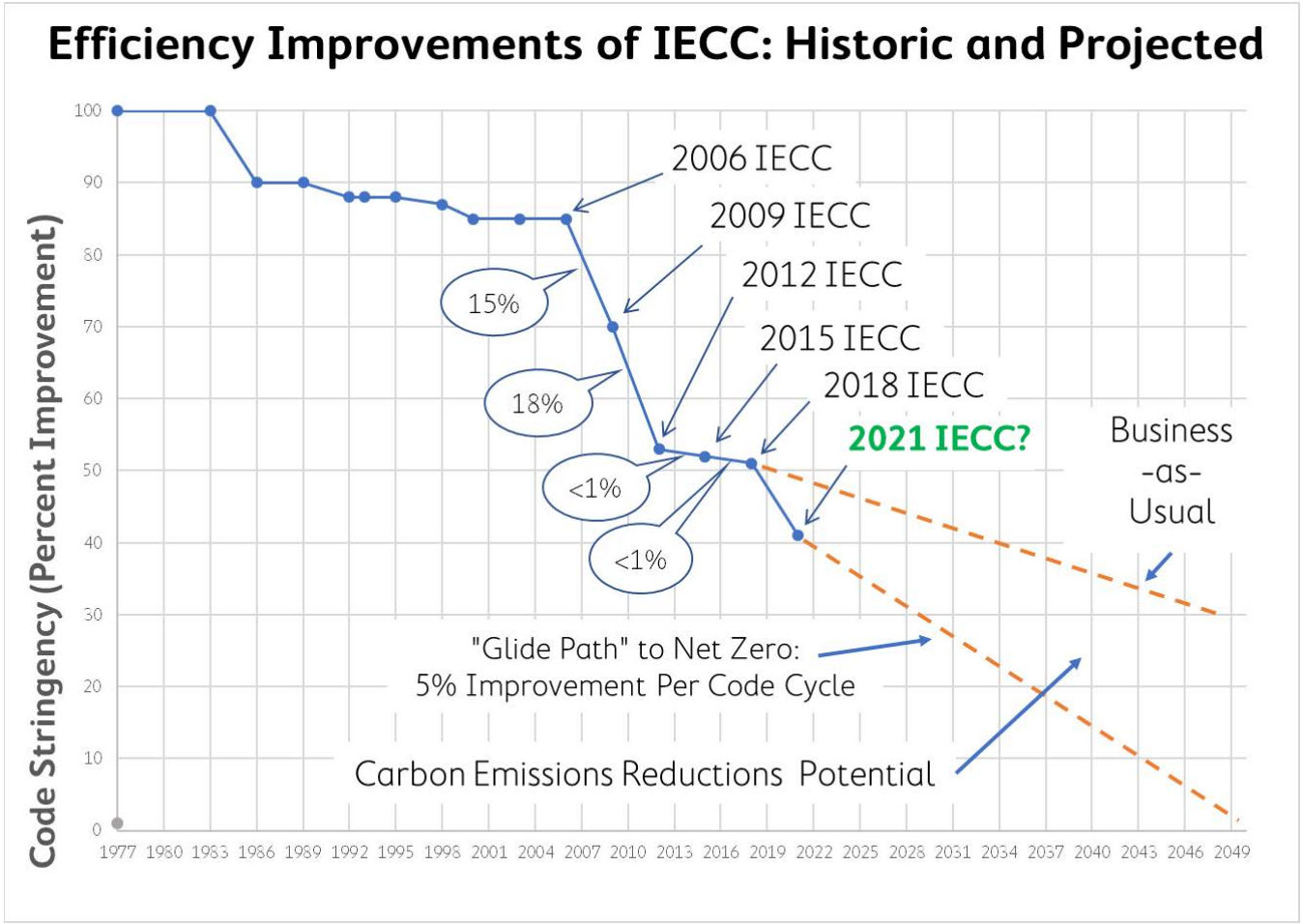
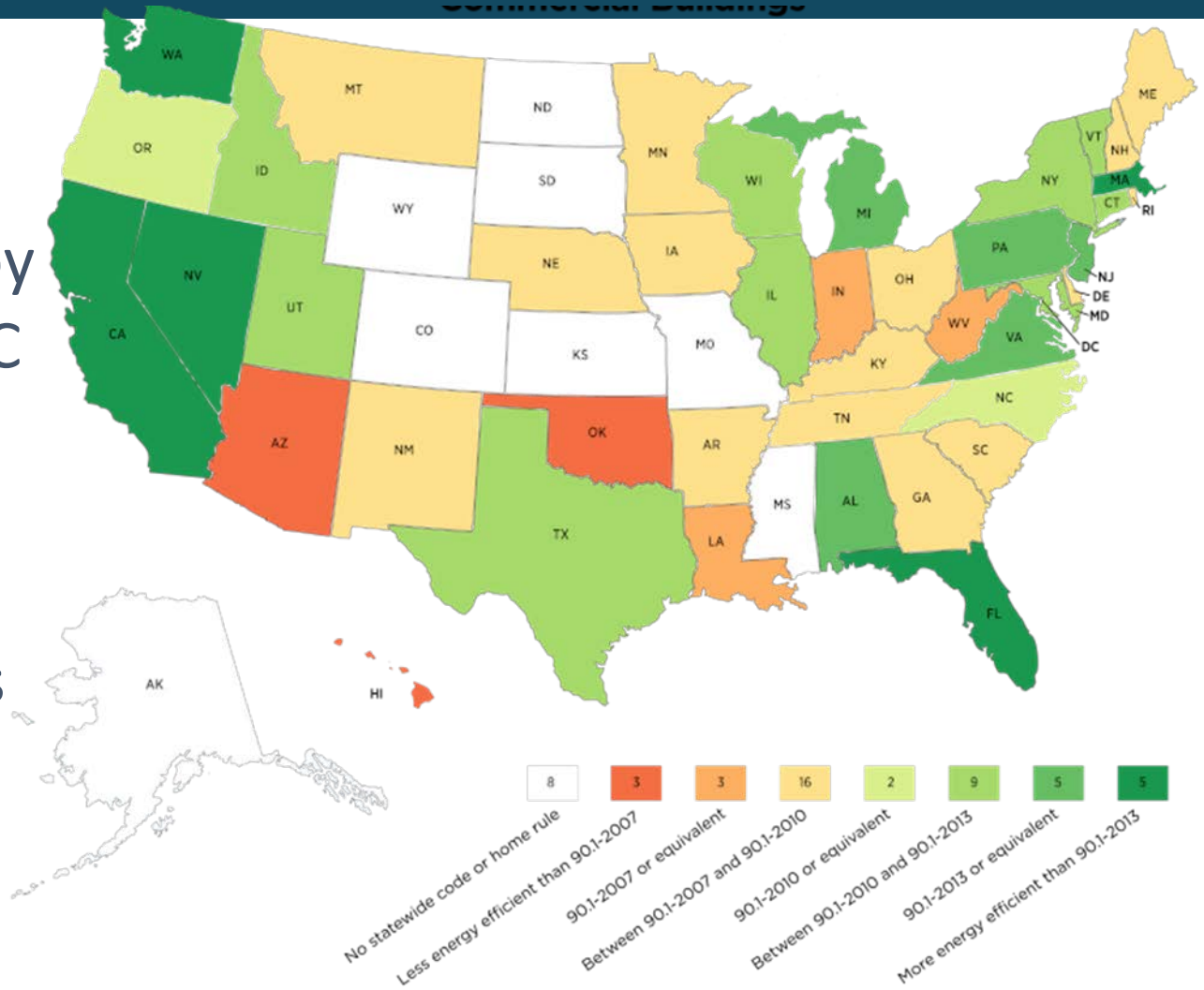


Status of State Energy Code Adoption: COMMERCIAL Buildings

- About two-thirds of Americans live in a jurisdiction covered by the 2015 or 2018 IECC
- Nine “Home Rule” states do not have statewide code (cities adopt).



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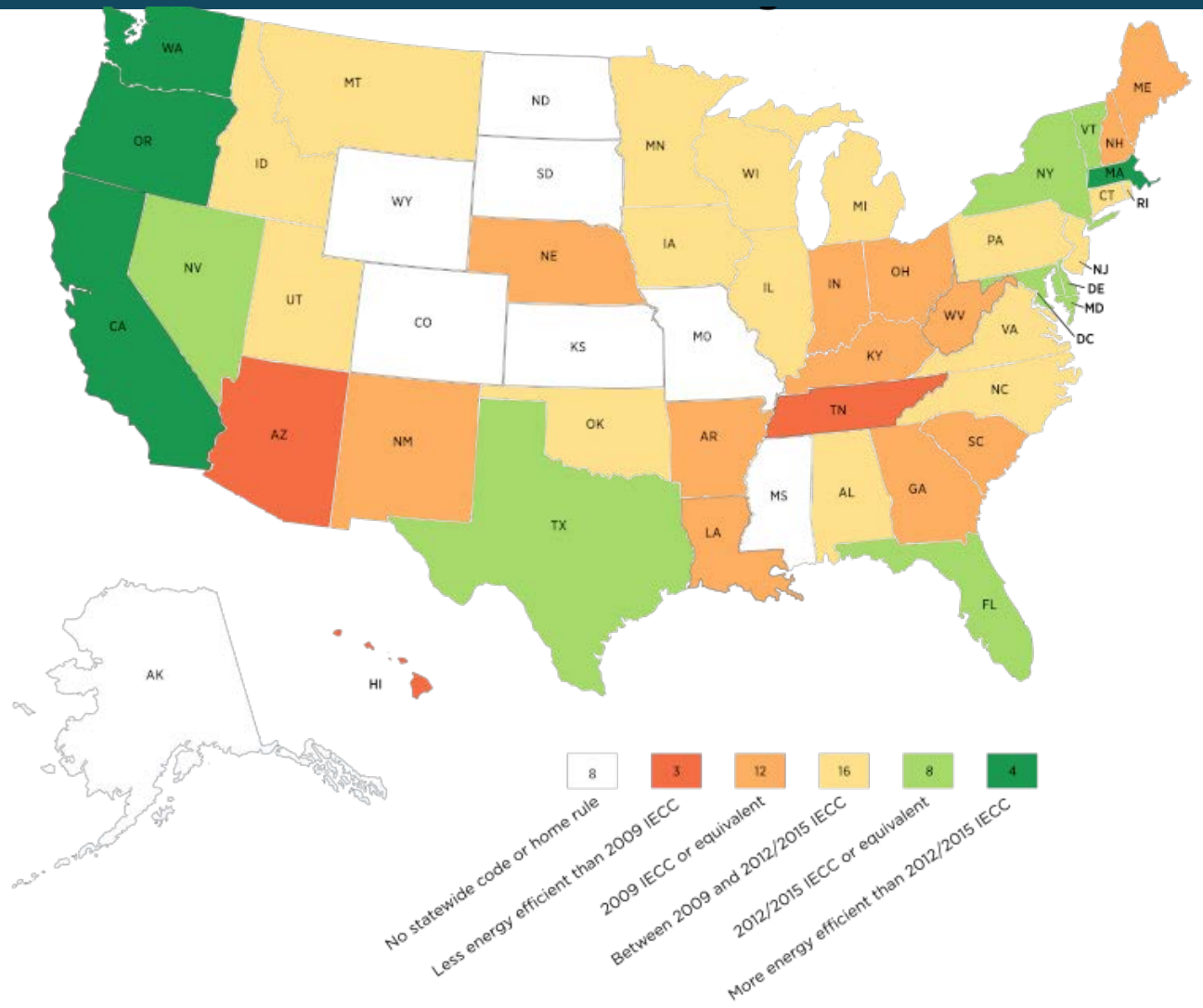
Status of State Energy Code Adoption: RESIDENTIAL Buildings



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U.S. CONFERENCE OF MAYORS RESOLUTION

- 1,400 Mayors across U.S.
- From cities of 30,000+ in size
- Encourages city governments to maximize voting to improve 2021 IECC at least 10% this Nov.

THE UNITED STATES CONFERENCE OF MAYORS

Mayors | The Conference | Issues | Programs | Resources | Meetings | News

87th Annual Meeting

Meeting Mayors' Energy and Climate Goals by Start America's Model Energy Code on a Glide Path to Net Zero Energy Buildings by 2050

WHEREAS, America's homes, multi-family, commercial, and governmental buildings are currently both its largest energy consuming sector - using 40% of the nation's energy, 54% of its natural gas and 70% of its electricity - and, at 39%, its largest source of manmade greenhouse gas emissions; and

WHEREAS, building energy codes, by setting minimum efficiency requirements for all newly constructed and renovated residential, multi-family, and commercial buildings, provide measurable and permanent energy savings and carbon emissions reductions over the century-long life spans of these buildings; and

WHEREAS, local governments play an essential role in the development, adoption, and enforcement of America's model building energy code, the International Energy Conservation Code (IECC), and

WHEREAS, the nature of the International Code Council's (ICC's) voting membership that develops the IECC puts mayors in a unique position of designating eligible code and other officials from their cities to participate in ICC's deliberations and ensure their votes are cast in support of reasonable efficiency measures and in opposition to efficiency rollbacks and trade-offs in the IECC; and

WHEREAS, mayor involvement in IECC development since 2008 has already boosted the efficiency of the most recent IECC updates by nearly 40% over 2006 baselines, saving thousands of dollars in energy bills for home and commercial building owners and tenants and accounting for millions of tons of carbon reductions; and

WHEREAS, the success of mayors' participation in these recent building efficiency gains, together with strengthened appliance standards, are so profound that they are credited with offsetting the nation's combined industrial, commercial, and residential growth needs in today's strong economy, breaking the historic need for new power plants to meet growing GDP, and

WHEREAS, America's mayors have a strong record of calling on cities, communities, and the federal government to take actions to reduce carbon and other greenhouse gas emissions, embodied by the U.S. Conference of Mayors' Climate Protection Agreement; and

WHEREAS, in the wake of the International Panel on Climate Change (IPCC) finding that national must limit global warming by 1.5 degrees by 2030 to avoid catastrophic impacts, America's mayors have single-handedly mounting local energy efficiency efforts and joining together in campaigns like the "Climate Mayors," "American City Climate Challenge," "Cities LEAP," the "Global Covenant of Mayors for Climate & Energy," "We Are Still In," "Mayors for 100% Clean Energy," "Ready for 100," that are designed to employ energy-related supply and demand measures to reduce their local carbon footprints, and

WHEREAS, the McKinsey Center for Business & Environment identified the optimization of building energy efficiency as the most significant and impactful step cities can take to meet USCM and Paris Accord emission targets, 1 and an earlier McKinsey & Co. analysis ranked building energy efficiency measures as among the most cost-effective means of reducing carbon emissions, and

WHEREAS, the International Code Council will complete its year-long development of the 2021 IECC this November with online final action voting by its Governmental Members, who are primarily local officials, and

WHEREAS, since 2008, mayors have endorsed the goals, principles, and efficiency recommendations of the broad-based Energy Efficient Codes Coalition (EECC), whose supporters include government; low-income housing; national efficiency NGOs; regional efficiency organizations; business and labor; consumer and environmental groups; architects; manufacturers; and all forms of utilities, and

WHEREAS, following USCM's presentation to the ICC Board of Directors in support for future IECCs that help mayors achieve their energy and climate goals, EECC supporters submitted proposals that would: 1) achieve a minimum 10% boost in the residential and commercial building efficiency of the 2021 IECC using flexible options, and 2) incorporate flexible and "scalable" approaches, as well as net-zero appendices, that will allow jurisdictions wishing to exceed 10% efficiency gains to do so.

NOW, THEREFORE, BE IT RESOLVED that The U.S. Conference of Mayors realizes the urgency of meeting Paris Accord and energy policy targets by improving the energy efficiency of America's existing and newly constructed residential, multi-family, commercial, and governmental buildings.

BE IT FURTHER RESOLVED, The U.S. Conference of Mayors recognizes the unique opportunity for cities and the critical role mayors can play by working with NGOs and broad-based building efficiency organizations in the development of America's Model Building Energy Code, the IECC.

BE IT FURTHER RESOLVED, that The U.S. Conference of Mayors encourages municipal governments to maximize their jurisdiction with the International Code Council to improve the 2021 IECC by at least 10% this November and path of steady progress to net zero building construction by 2050

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2021 IECC DEVELOPMENT PROCESS

KEY DATES / DEADLINES		EECC ACTIONS
Jan. 14	IECC proposals due to ICC	submitted 40+ proposed changes
March 4	Proposals made public	Evaluated hundreds of IECC proposals
March 29	Deadline to join ICC	Recruited new ICC members
Ap. 28-May 8	ICC Committee Action Hearings	Testified
July 24	Public Comments due to ICC	Submitted Public Comments
Sep. 23	Deadline to register voters with ICC	Helped register new voters

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2021 IECC PROPOSALS—HIGHLIGHTS FROM ALBUQUERQUE

Residential Proposals

- ✓ Fenestration
- ✓ Lighting and Controls
- ✓ Duct Leakage Testing and Backstop
- ✓ Floors and Walls
- ✓ Mechanical Ventilation

…Plus:

Commercial Proposals

- ✓ Fenestration
- ✓ Opaque Envelope
- ✓ Air Leakage Testing and Verification
- ✓ Controlled Receptacles
- ✓ Lighting
- ✓ EV-ready Circuitry and EV-capable Wiring
- ✓ Points Options
- ✓ Net-zero Energy “Stretch Codes” Appendix

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EMISSIONS REDUCTION POTENTIAL AT STAKE

EECC-sponsored Proposals: 35 MMT CO_2

EECC-endorsed Proposals + 15 MMT CO_2

Total Potential Carbon Emissions Reductions: 50 MMT CO_2

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2021 IECC DEVELOPMENT PROCESS—WHAT COMES NEXT

KEY DATES / DEADLINES

ICC Public Committee Hearing to set ballot, Las Vegas, NV

Voting Online

EECC ACTIONS

- Testifying
- Educating voters
- Voting Guide

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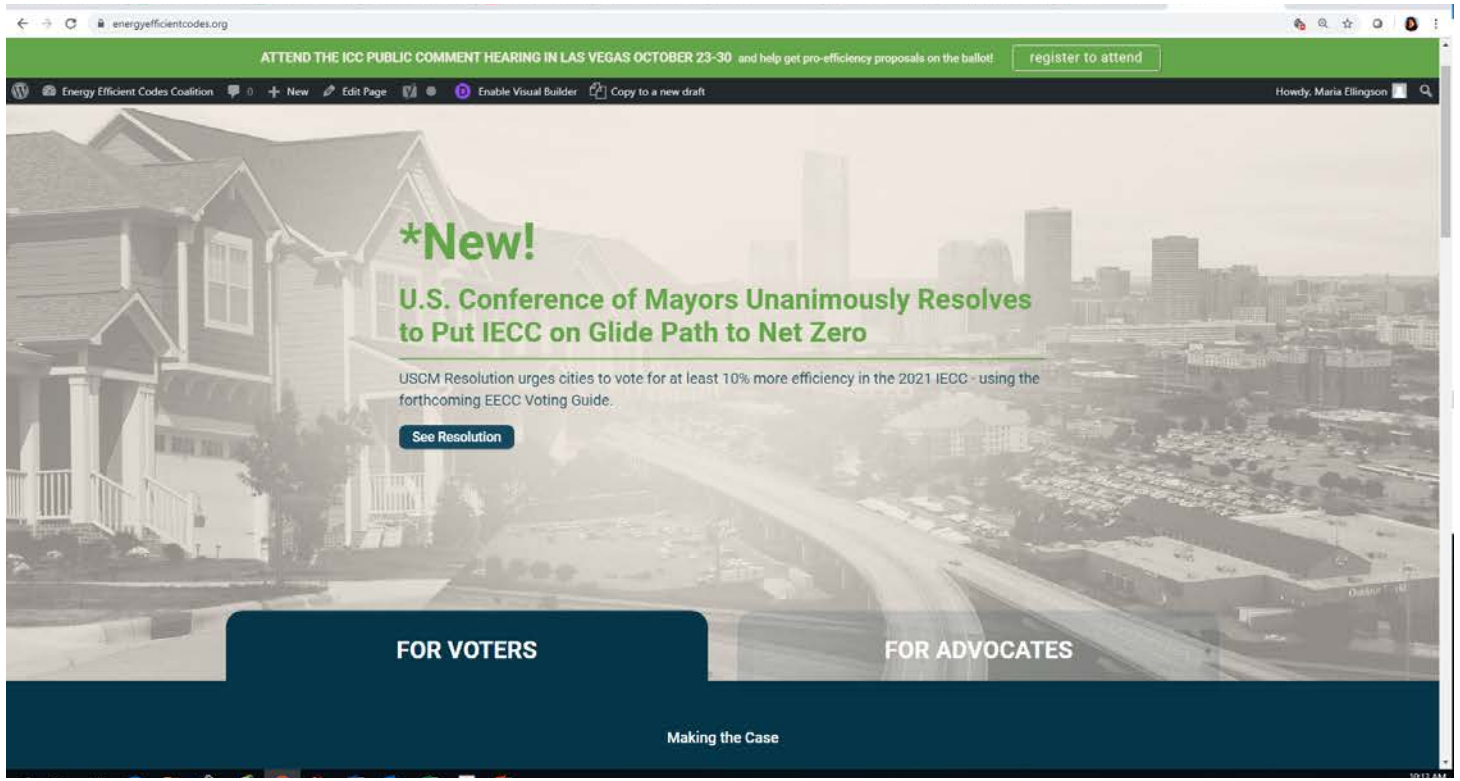
EnergyEfficientCodes.org RESOURCES

- ✓ **Codes-Carbon Calculator** for estimated jurisdiction CO2 and cost savings
- ✓ **News and blog posts**
- ✓ **Fact sheets**
- ✓ **EECC Voting Guide**
  - o Top-priority proposals
  - o Voting recommendations



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THANK YOU!

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