How did Building Energy Efficiency become so political and how does a Building Energy Efficiency Expert operate in this new frontier?

Jim Meyers (SWEEP), Darren Port (NEEP)

Tuesday October 6, 2015

About NEEP

Mission

Accelerate energy efficiency as an essential part of demand-side solutions that enable a sustainable regional energy system

Approach

Overcome markets and transform markets via

Collaboration, Education and Enterprise

Vision

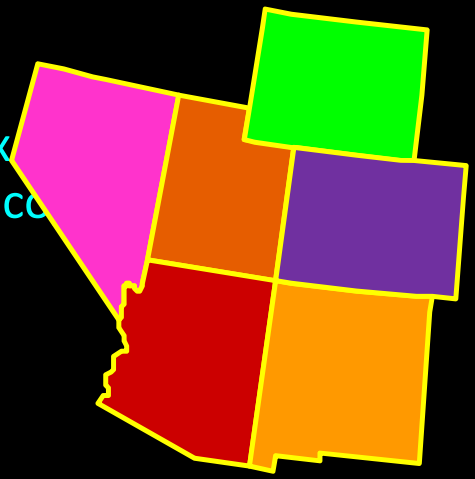
Region embraces **next generation energy efficiency** as a core strategy to meet energy needs in a carbon-constrained world

One of six regional energy efficiency organizations (REEOs) funded by the US Department of Energy (US DOE) to link regions to US DOE guidance, products and programs

ABOUT SWEEP

Mission

To promote economic benefits of energy efficiency in six southwest states (Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming)



Approach

Through education, regulatory, and policy actions

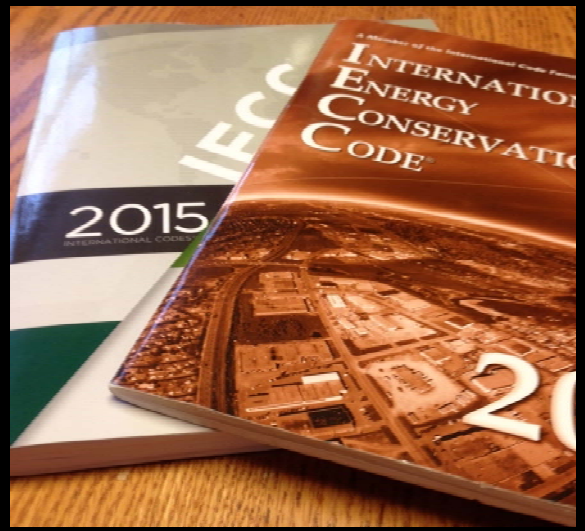
Team

SWEEP team works to advance energy efficiency in buildings, transportation, utility programs, combined heat and power

INTERNATIONAL ENERGY CONSERVATION CODE

- Approximately 150 pages

Why?




TEXACO
TEXACO

SPECIAL INTERESTS

Don't Worry, We'll Make You See It Our Way

(Just Click Here)

INTERESTS


ACCA
Air Conditioning Contractors of America
Energy Efficient Codes Coalition
WE'RE BUILDING A SMARTER
THE UNITED STATES CONFERENCE OF MAYORS
PIMA
POLYISOCYANURATE INSULATION MANUFACTURERS ASSOCIATION
ASHRAE
FannieMae
RECA
Responsible Energy Codes Alliance
ASTM INTERNATIONAL
I·C·L·E·I
Local Governments for Sustainability
USA
NAIMA
North American Insulation Manufacturers Association
AIA
WINDOW & DOOR MANUFACTURERS ASSOCIATION
WDMA
WWW.WDMA.COM
NFRC
National Fenestration Rating Council
SEIA
RESNET
RESIDENTIAL ENERGY SERVICES NETWORK
LEADING BUILDERS of AMERICA
U.S. GREEN BUILDING COUNCIL
NAHB RESEARCH CENTER
Illuminating ENGINEERING SOCIETY
REALTOR®
AHRI
Freddie Mac
AMERICAN WOOD COUNCIL
EEI

Code & Standard Makers / Producers

International Code Council (ICC)

American Society of Heating, Refrigerating, & Air Conditioning Engineers (ASHRAE)

International Association of Plumbing & Mechanical Officials (IAPMO)

National Fire Protection Association® (NFPA)

U.S. Department of Energy (DOE)

American Society for Testing and Materials International (ASTM)

American Society of Civil Engineers (ASCE)

Tribal

Straw Bale & Earthen Building Codes

How are Codes Developed?

Three Year Cycles

Proposals from Public and Industry

Multiple Hearings

Membership (Gov. Employees) Voting

Local Adoption

ICC Code Proposal/Hearing Process

Call for proposals (deadline)
- Committee, individuals, companies, organizations, special interests, trade groups

Monograph published – available to public

Review by Committee

Hearing – anyone can testify
- Testimony – Proponent/Opponent
- Vote by committee

Monograph Published with hearing committee voting result

Public Comments Accepted by ICC – Monograph Published

Final Action Hearings
- Vote by ICC Membership (Government Officials)

Code Published

Code Adopted State/Local

Ad Hoc Coalitions

Greeenbuilder Coalition
Code Officials

Steel Framing
American Wood
Concrete Manufactures

AIA
USGBC

Coalition for Fair Energy Codes

Builders
BOMA

UL

USEPA
Assoc. of State Flood Plain Managers

Target

DOW
DuPont
Vinyl Institute

EDPM Roofing Manufactures
Global Cool Cities Alliance

NRDC

BCAP
NBI
REEOS
RECA

Health Care

City of Seattle
SEHPCAC*

Windows/Skylights
Roofing Contractors

*Sustainability, Energy and High Performance Code Action Committee

Ad Hoc Coalitions

GG56-14
202

Proponent: Doug Johnson, representing California Invasive Plant Council (dwjohnson@cal-ipc.org); Read Porter, Environmental Law Institute (porter@eli.org), Wendy Brown, Washington Invasive Species Council, Brian Arnold, Southeast Exotic Pest Plant Council, Katherine Howe, Midwest Invasive Plant Network, Nancy Lowenstein, Alabama Invasive Plant Council

Proponent: Timothy Burgos, InterCode Incorporated, representing Rectorseal Corporation and Ken Sagan, NRG Code Advocates, representing self (ken@nrgcodeadvocates.com)

M31–12
202

Proponent: John Ingargiola and Gregory Wilson, representing Department of Homeland Security, Federal Emergency Management Agency (john.ingargiola@dhs.gov, gregory.p.wilson@dhs.gov) and Rebecca Quinn, RCQuinn Consulting, Inc., representing Federal Emergency Management Agency (rcquinn@earthlink.net).

M46–12
Table 403.3

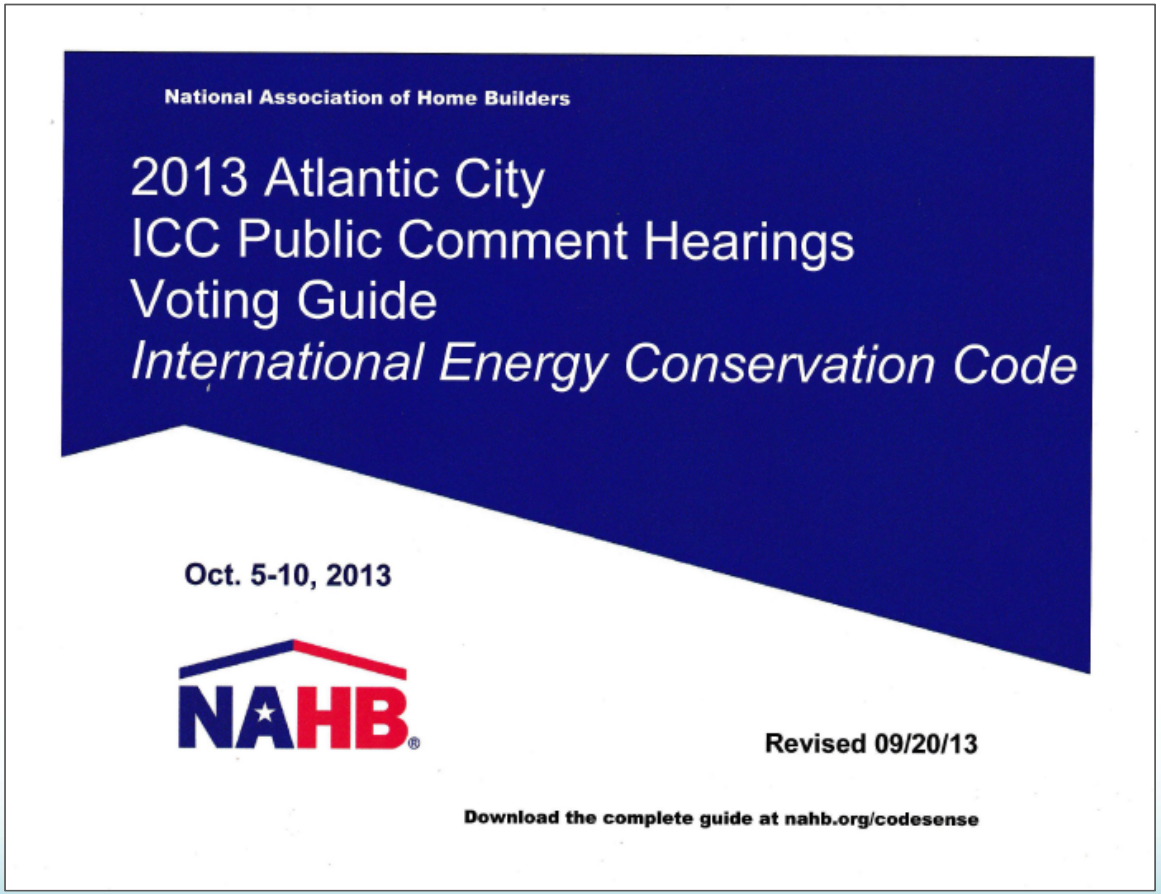
Proponent: Richard Grace, Fairfax County, Virginia Plumbing and Mechanical Inspectors Association, Virginia Building Code Officials Association and Guy McMann, MCP, Jefferson County Colorado, Colorado Association of Plumbing and Mechanical Officials (CAPMO) (gmcmann@jeffco.us)

GG 320-14
Appendix A (New)

Proponent: Craig Conner, self, representing self (craig.conner@mac.com); Gary Klein, Affiliated International Management, LLC, representing self (gary@aim4sustainability.com); Hope Medina, representing self (HMedina@coloradocode.net); Terry Cobb, Director of Development Services, Metropolitan Nashville & Davidson County, TN, representing self (terry.cobb@nashville.gov)

Proponent: Don Davies, Salt Lake City Corp/Salt Lake County representing Utah Chapter of ICC, Brent Ursenbach, Utah Chapter of ICC (don.davies@slcgov.com) and Donald R. Monahan, PE, Walker Parking Consultants/Engineers, Inc. representing the Parking Consultants Council of the National Parking Association, Washington, DC (don.monahan@walkerparking.com)

DIRECT INTEREST



Direct Interest

International Energy Conservation Code - Residential / IRC - Energy

Prop #		Proposal/Comment Description	Recommended Vote
RE153		Duct Insulation- Mandatory requirements duct insulation	Support
	PC 1	Requests as submitted	Support
	PC 2	Modifies proposal with "other limitations" for where and when duct insulation is required. As well as limiting the area weighted average for U-Factors and opaque building envelop components.	Opposed
RE154		Duct Insulation- Increases the cavity insulation equirements between ducts and the exterior for walls and floors	Opposed
	PC 1	Modifies proposal to increase duct insulation when outside the thermal envelope to R-8 and requires field verification and documentation.	Opposed
RE157		**Performance Path- Changes performance path to ONLY use a present value calculation**	Opposed
	PC 1	Modifies proposal by removing quantification (3+ years) and qualification (useful life) of a building life, and conditions related to building life.	Opposed
RE158		Performance-based compliance conversion factor for electricity	Neutral
	PC 1	Requests as submitted	Neutral
RE160		Performance-based compliance	Neutral
	PC 1	Modifies proposal to eliminate exception on site or source energy and energy multipliers being determined by code official.	Neutral
RE161		Performance-based compliance	Opposed
	PC 1	Modifies proposal to rephrase exception 2 to describe a HERS like rating system	Neutral
RE162		**On-Site Renewables- Provides credit for generation of on-site renewable energy**	Support
	PC 1	**Requests as submitted**	Support
	PC 2	**Requests as submitted**	Support
RE163		Reporting- Required detailed compliance report	Opposed
	PC 1	Modifies proposal to require compliance with Section R405.	Opposed
	PC 2	Requests disapproval	Support

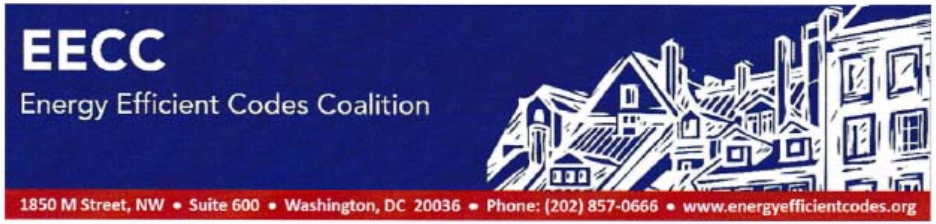
* Significant proposals are in bold

OPPOSE

SUPPORT

NEUTRAL

DIRECT INTEREST



EECC

Energy Efficient Codes Coalition

1850 M Street, NW • Suite 600 • Washington, DC 20036 • Phone: (202) 857-0666 • www.energyefficientcodes.org

PUBLIC INTEREST VOTING RECOMMENDATIONS FOR IECC PROPOSALS ("RE" and "CE")

The nation's governmental officials charged with regulating the construction of buildings in the United States will meet in Atlantic City in October at the ICC Public Comment Hearings (formerly known as Final Action Hearings) to evaluate proposals to modify the nation's model energy code – the International Energy Conservation Code ("IECC"). The votes of these officials will determine crucial public policy on energy efficiency related to building construction and their actions will create the next version of the IECC.

The current version of the IECC – the 2012 edition – has been reviewed by the United States Department of Energy and determined to be a substantial improvement over previous editions. Under federal law, states are now in the process of evaluating whether to adopt this edition. Roughly 2/3 of the states and many local jurisdictions have already adopted the 2009 IECC or 2012 IECC, which together have been estimated by US DOE to save 30% or more energy over the 2006 version and have been found by US DOE to be cost-effective. Votes on the 2015 IECC will determine whether the next national model energy code to be considered for adoption will continue the progress toward a more secure and energy efficient future made in previous cycles or whether the code will retreat.

The EECC has carefully evaluated the Residential Energy ("RE") and Commercial Energy ("CE) code proposals to be considered at the ICC's Public Comment Hearings to determine if they will improve energy efficiency under the code. EECC has developed this document as a summary of the proposals to be considered and voting recommendations reflecting *EECC's 12 Guiding Principles for 2015 Code Development*. The summary and recommendations below reflect careful consideration and input by the EECC Technical

DIRECT INTEREST

Prop. #	Standing Motion	EECC Recommended Action	Original Proposal Summary	EECC Evaluation & Summary of Public Comments with Modifications	EECC Notes
CE35 Part I	D	NR	Requires a statement of compliance or exemption from a registered design professional and an energy analysis of the building design; requires a commissioning plan for mechanical and electrical systems; adds definition of *energy analysis*.	**PC** – Reorganizes proposal and alters the definition of *energy analysis*.	NR
CE35 Part II	D	NR	Requires a statement of compliance or exemption from a registered design professional and an energy analysis of the building design; requires a commissioning plan where applicable; adds definition of *energy analysis*.	**PC** – Adds "or other applicant" to all references to "registered design professional"; reorganizes proposal and alters the definition of *energy analysis*.	NR
CE37 Part I	D	Oppose D Support AM PC	Requires specific definition of the building's thermal envelope on the construction documents.	**PC** – Substitutes a simpler requirement that the building thermal envelope shall be represented on the construction documents.	Agree
CE37 Part II	D	Oppose D Support AM PC	Requires specific definition of the building's thermal envelope on the construction documents.	**PC** – Substitutes a simpler requirement that the building thermal envelope shall be represented on the construction documents.	Agree
CE38 Part I	D	Oppose D Support AM PC	Adds specific details regarding the types of reviews and inspections required during the construction process.	**PC** – Removes preliminary inspection requirement and deletes the details from the required inspections.	Agree. The language proposed should enhance compliance and enforcement.
CE38 Part II	D	Oppose D Support AM PC	Adds specific details regarding the types of reviews and inspections required during the construction process.	**PC** - Removes preliminary inspection requirement and deletes the details from the required inspections.	Agree. See Part I
CE39 Part I	D	NR	Reorganizes requirements related to inspections and approved inspection agencies; requires a final commissioning report as part of the approval process.	**PC** – Revises proposal to show which sections of C104 are unchanged, but otherwise appears identical to CE39.	Agree
CE39 Part II	D	NR	Reorganizes requirements related to inspections and approved inspection agencies; requires a final commissioning report as part	**PC** – Revises proposal to show which sections of C104 are unchanged, but is otherwise appears identical to CE39.	Agree

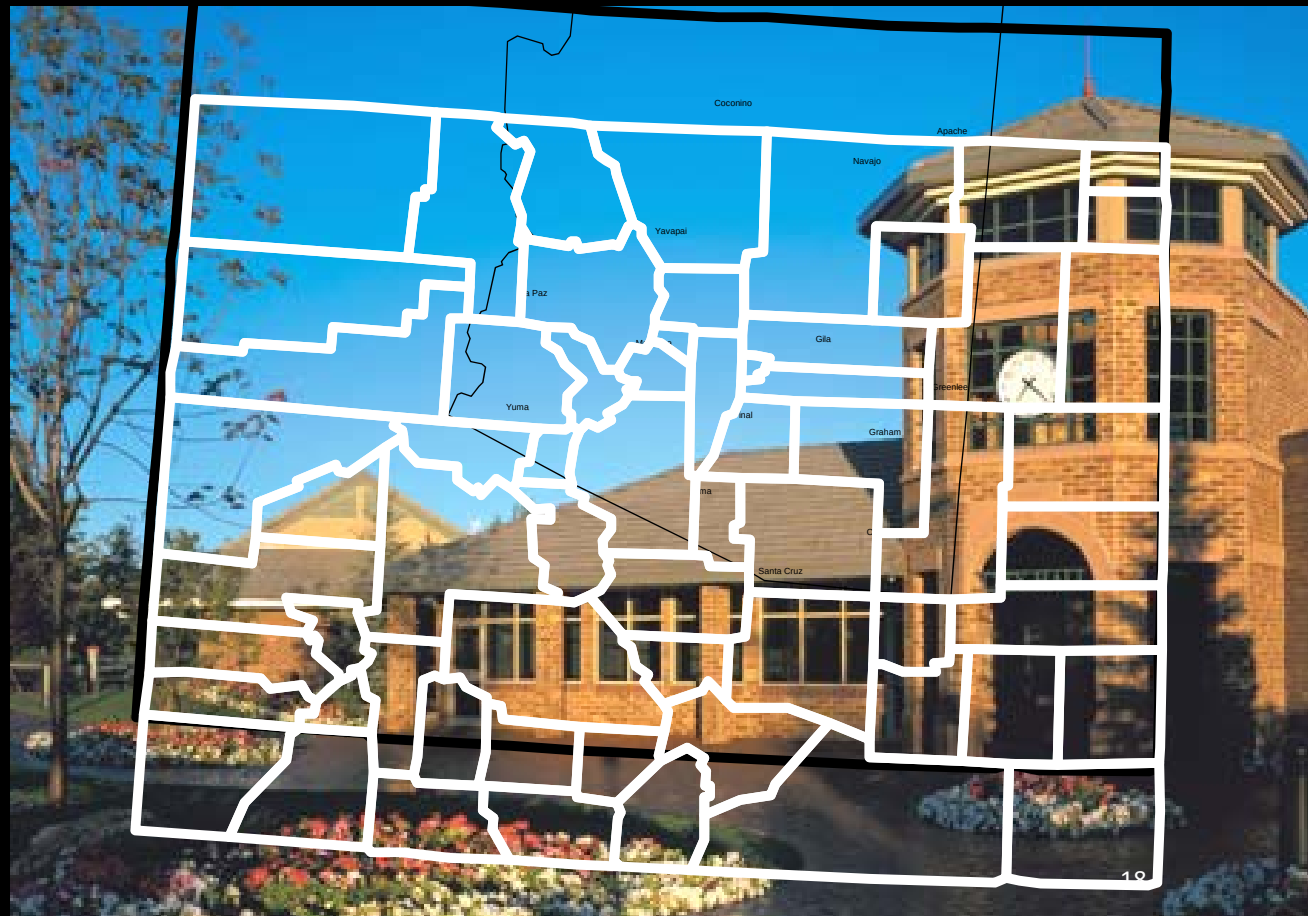
MUNICIPAL OVERVIEW

More than one governing organization

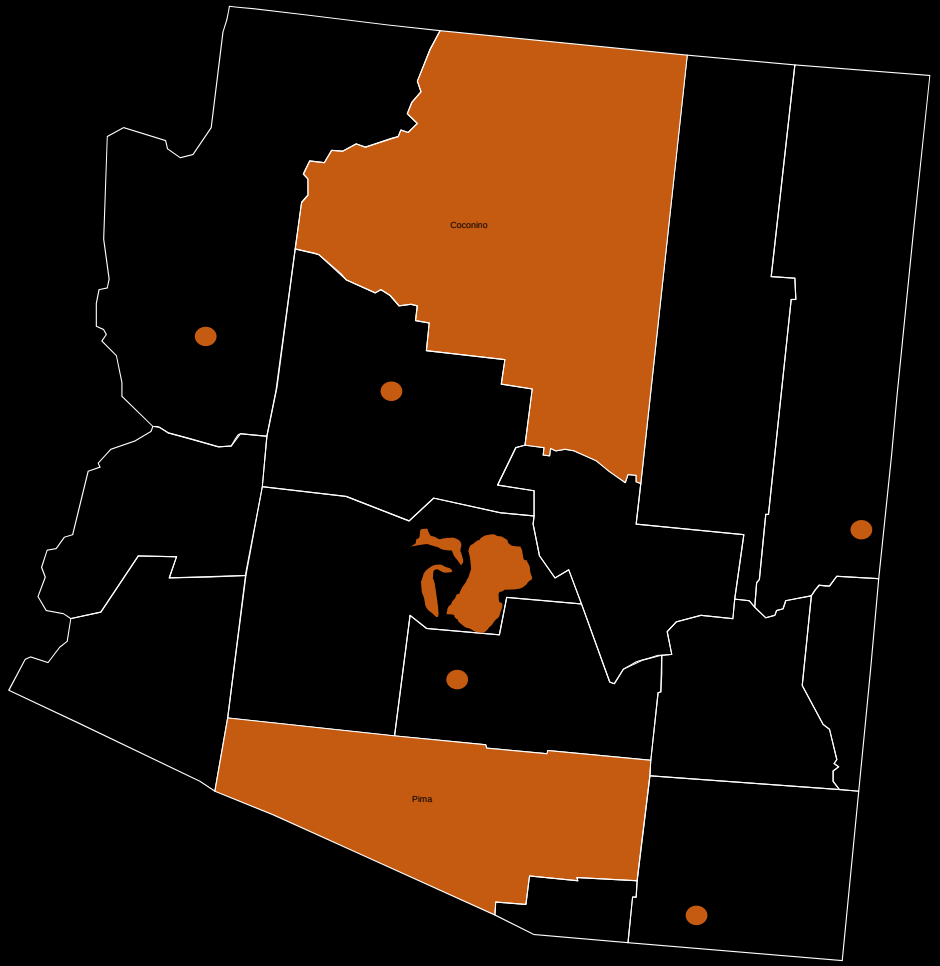
Simpler process

More effort

Follow the leader



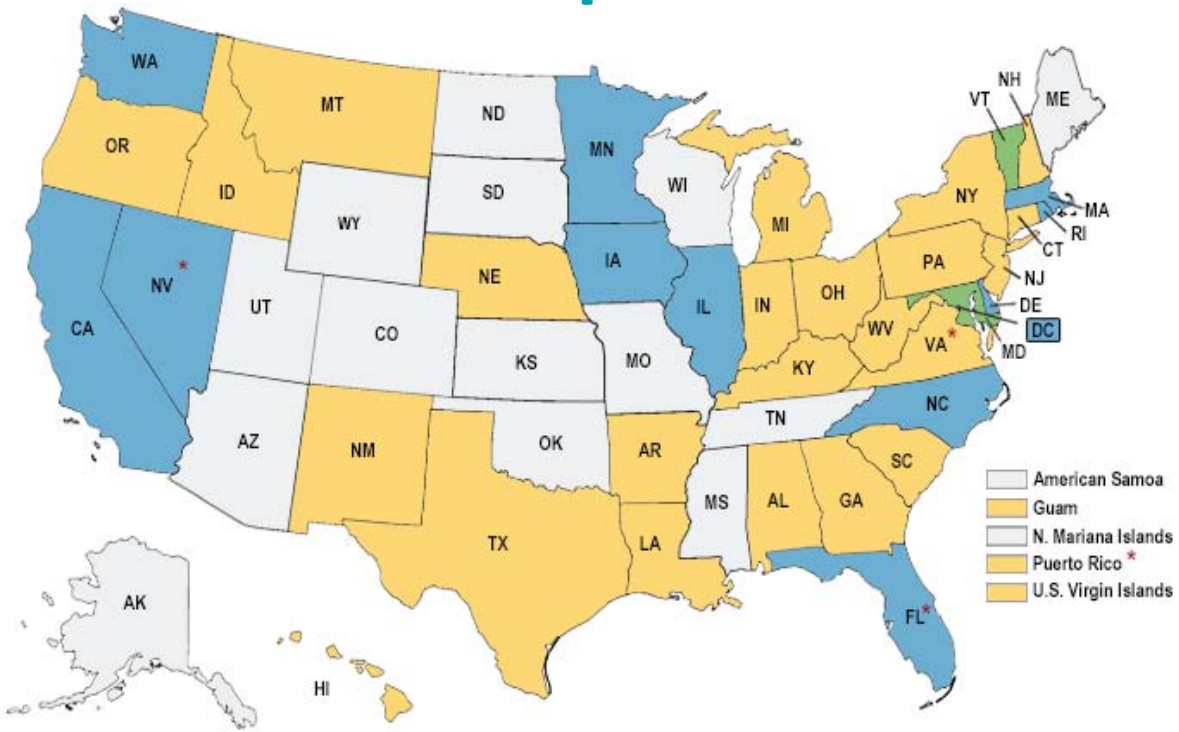
70%



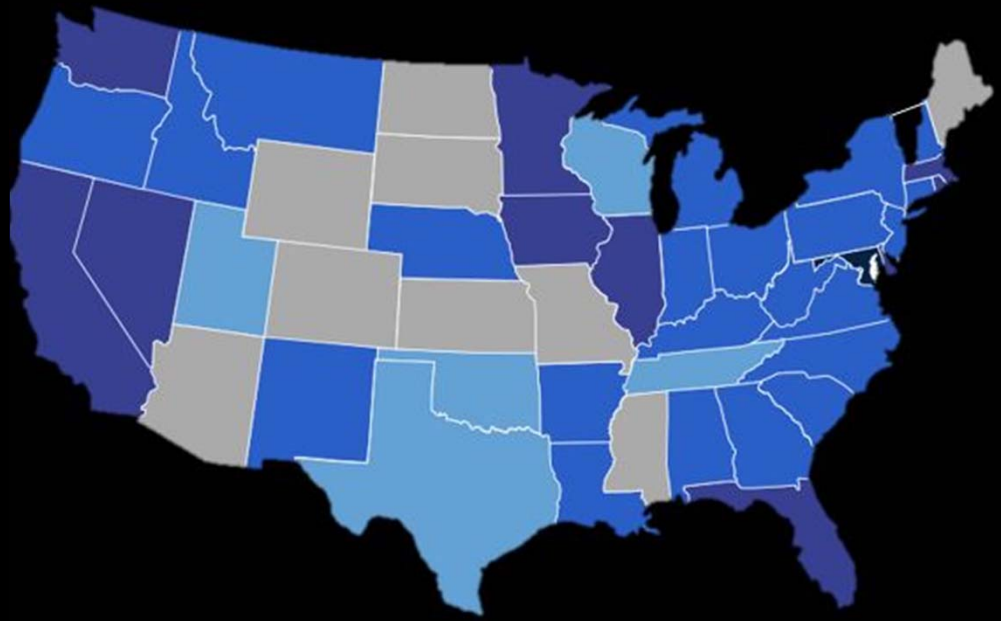
WHO ARE THE POLITICAL ACTORS IN YOUR COMMUNITY?

- Mayor, Council, Commissioners
- HBA's
- State Chapters of national organizations
  - USGBC, Sierra Club, AIA, ICC, GGAC,etc
- Local Legislature
- State Energy Offices
- Municipal Leagues
- Utilities
- Water Suppliers
- HERS Providers/Raters
- Realtors, Appraisers
- Environmental

State Adoptions

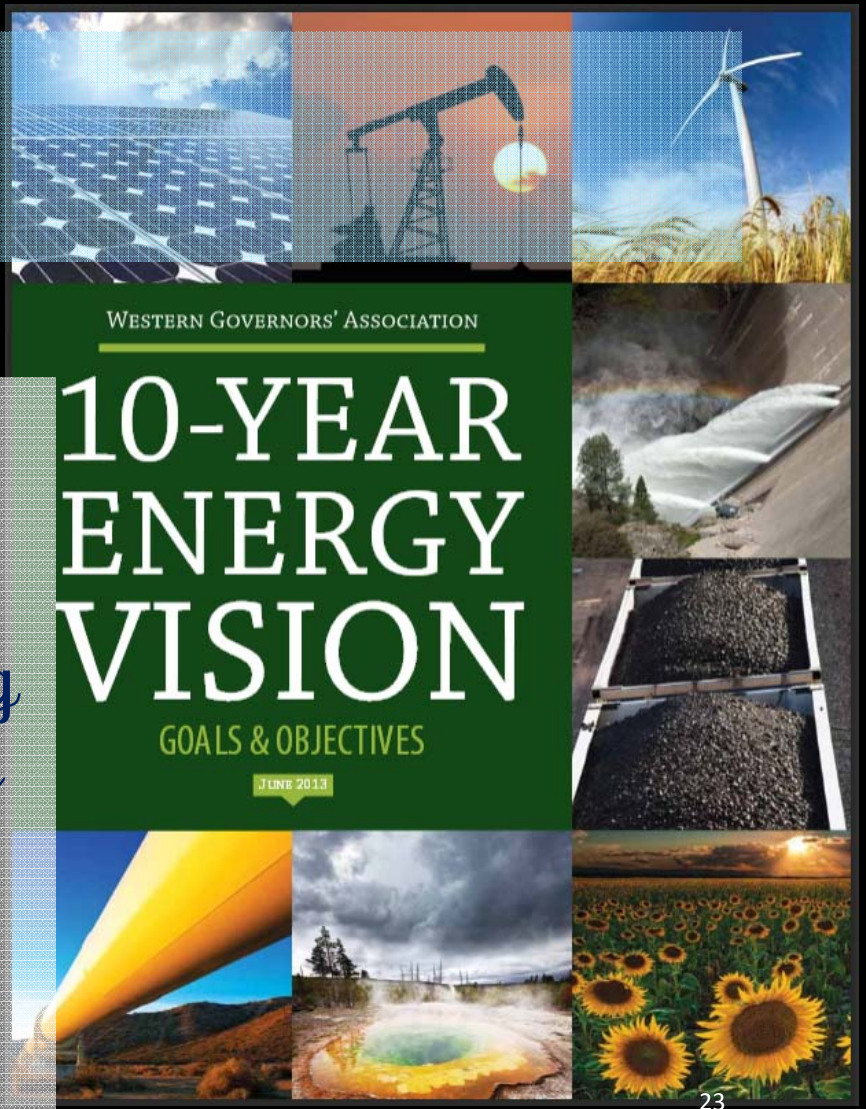


STATE ADOPTIONS– SOUTHWEST EXAMPLE



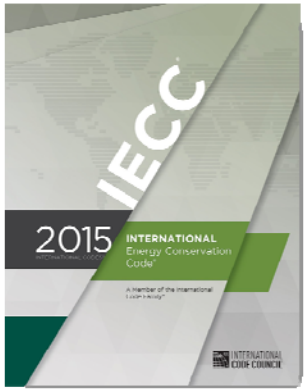
STATE OR REGIONAL POLICY

Improve the energy efficiency of new residential and commercial buildings by encouraging adoption and implementation of state-of-the-art building energy codes and programs that stimulate new construction that exceeds minimum energy codes



POLITICAL CLIMATE

IECC 2018 Code Development



Code Change Proposals Due – January 2016

Committee action Hearing – April 17-27, 2016
Louisville, KY

Results Posted – May 6, 2016

Committee Action Report – June 1, 2016

Public comment submittal deadline via cdpACCESS – July 22, 2016

Public Comment Hearing – October 19-25, 2016 – Kanas City, MO

Public Comment Hearing Results – November 2, 2016

Online Governmental Consensus Voting – Nov 8-21, 2016

Summary of Final Action Group B Code – December 6, 2016

www.iccsafe.org/codes-tech-support/codes/code-development/current-code-development-cycle/

DOE 2018 IECC RES/COM/MF

Meeting: Public meeting for interested parties to present their *draft proposals* for the 2018 IECC:

Date: October 13 – 14, 2015 in Denver, Colorado
Location: Crowne Plaza Denver Downtown: 1450 Glenarm Place, Denver, CO

Residential Session: Tuesday, October 13 from 8:30 am – 2:45 pm (MDT)
Multi-family Session: Tuesday, October 13 from 3:00 – 5:00 pm (MDT)
Commercial Session: Wednesday, October 14 from 8:00 am – 2:00 pm (MDT)

Timeline & Important Dates

October 19, 2015: Deadline for submitting comments on DOE draft proposals
December 2015: DOE final code change proposals are published
January 11, 2016: ICC deadline for submission of proposals for the 2018 IECC

DOE 2018 IECC RES/COM/MF

Residential

Advanced Wall Framing
Improved Fenestration
U-factor
Heat Recovery Ventilation
Prescriptive option
Packages
Extend High-Efficacy
Lighting
HVAC Equipment Labeling

Commercial

Building air leakage Testing
Lower SHGC
Occupant Standby Control for HVAC
Limit Ventilation
Reduce VSD Threshold for Pump and fan Motors
Expand use of Occupancy Sensors
Faster Shutoff for Occupancy Sensors
Reduce interior Lighting Allowances
Reduce Display Lighting Allowance
Reduce Exterior Lighting allowances
Prescriptive Packages for Simple Office Buildings

NBI Multifamily 2018 IECC Initiative

A Dedicated Multifamily Chapter in the IECC:

Analysis of existing code provisions
Stakeholder engagement
Code language proposal
ICC Hearings
Creation of an above code Multifamily Guide

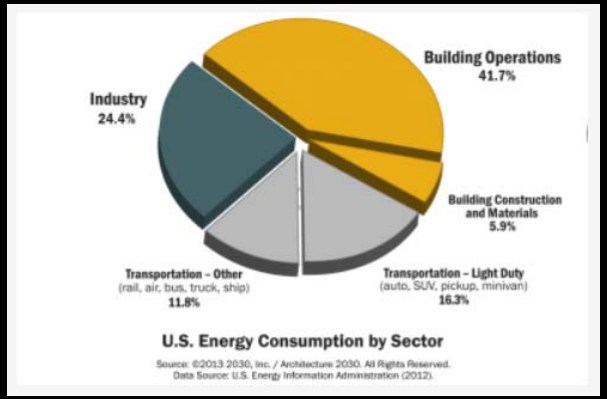
Integration of Title 24

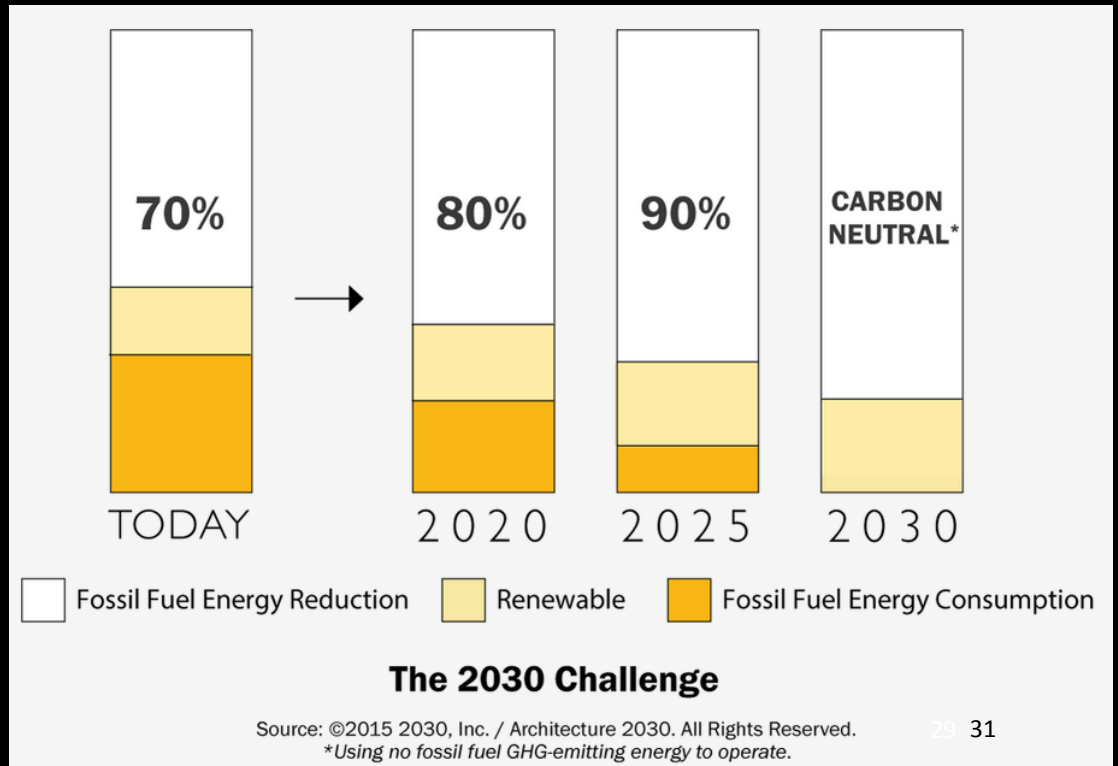
Sean Denniston: sean@newbuildings.org

ALIGNMENT WITH OTHER PROGRAMS

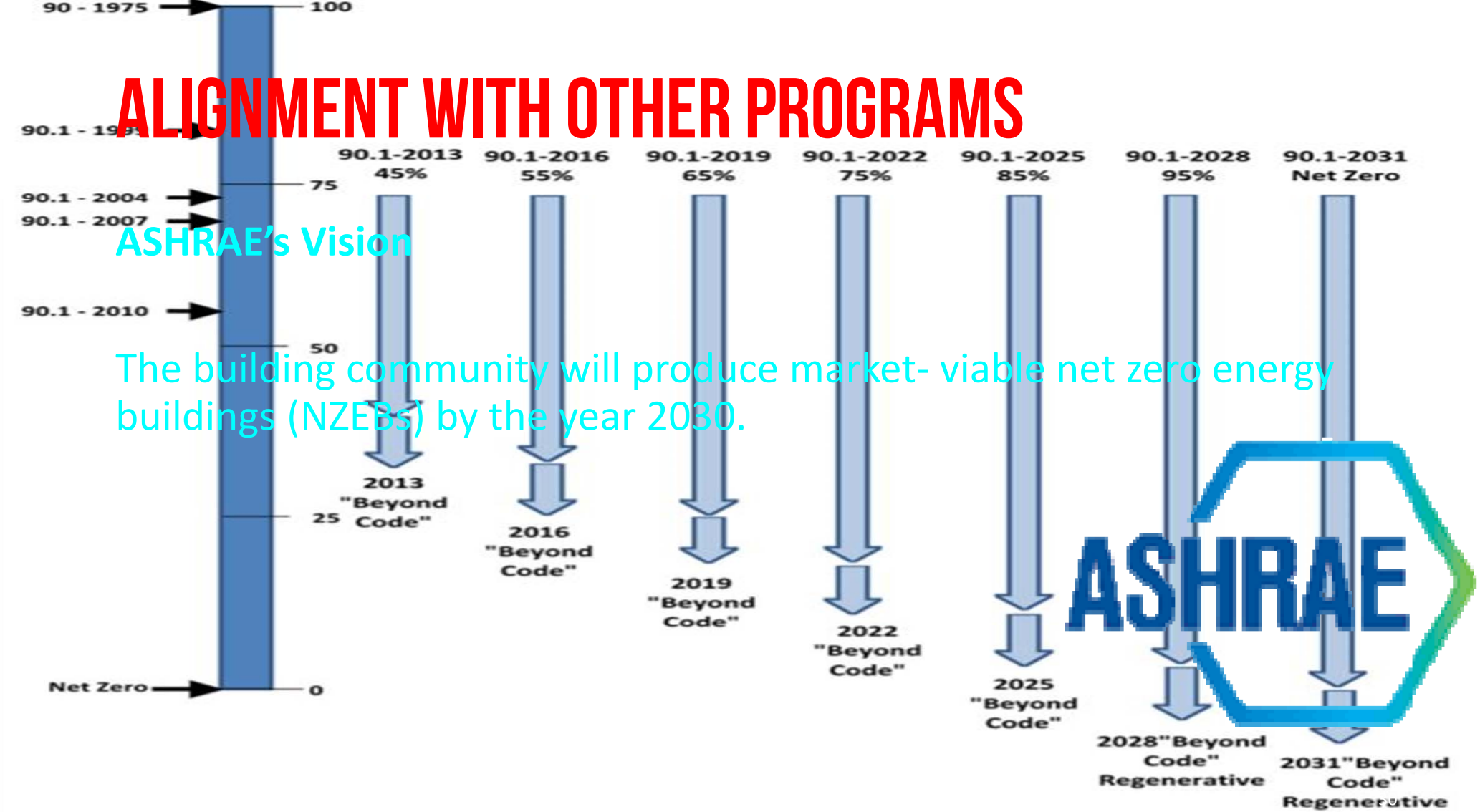
Architecture 2030 / 2030 Challenge

All new buildings, developments, and major renovations shall be carbon-neutral by 2030





ALIGNMENT WITH OTHER PROGRAMS

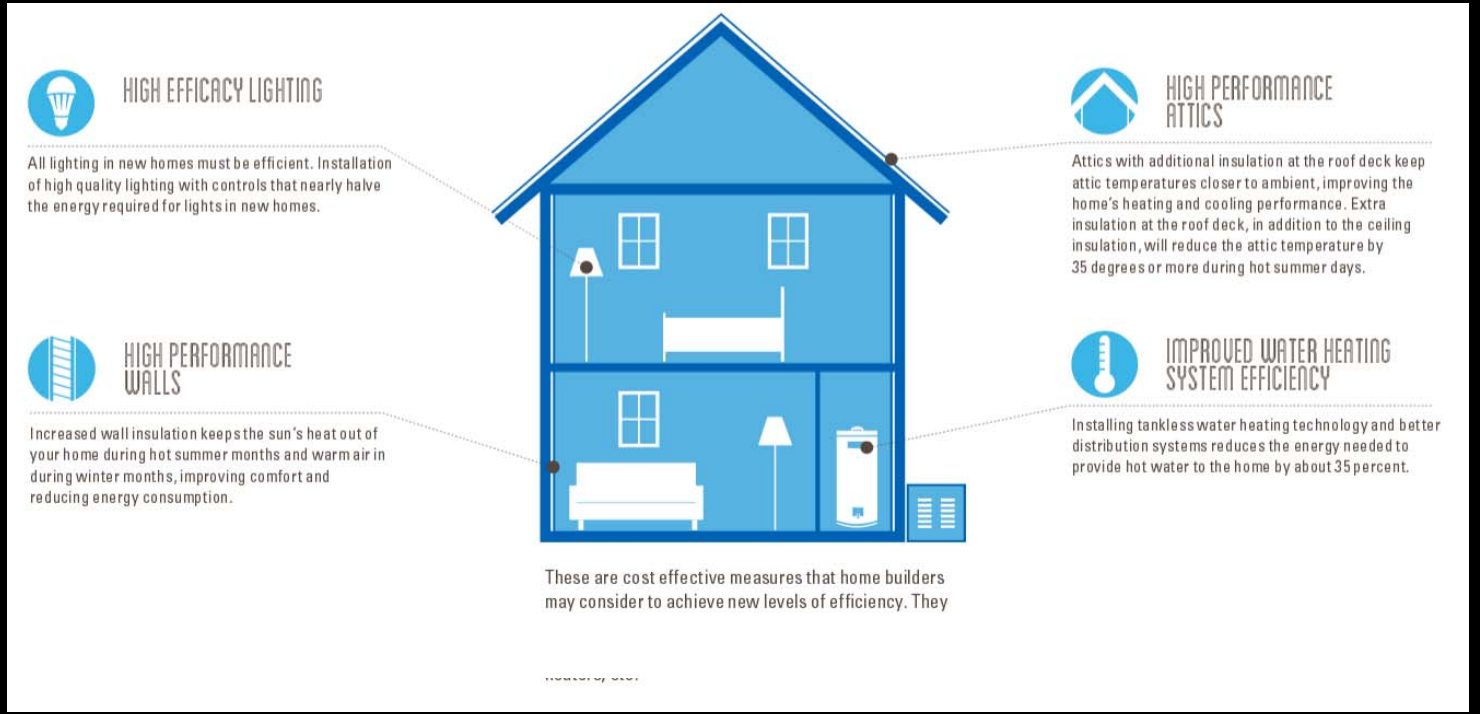


ASHRAE's Vision

The building community will produce market- viable net zero energy buildings (NZEBs) by the year 2030.

T-24

Moving towards Net Zero Energy by 2020



Building energy Rating & Disclosure

Building Energy Benchmarking and Disclosure Policies in the Northeast and Mid-Atlantic

What is Building Energy Benchmarking?

Building energy benchmarking is the process of tracking an existing building's energy usage over time and comparing the results to similar buildings *OR* the same building as measured at a different point in time/modeled during design.

Why Track Energy Usage?

Tracking energy usage is an important first step toward reducing energy consumption and associated costs. Benchmarking provides building owners and managers with the information they need to make informed decisions about building system optimization or efficiency investments. This is especially true in the public and commercial sectors where facilities managers can control large amounts of energy usage.

Berkeley, CA - 2015
Atlanta GA - 2015
Kanas City, MO - 2015
Cambridge, MA - 2014
Montgomery County, MD - 2014
Chicago, IL - 2013
Boston, MA - 2013
Minneapolis, MN - 2012
Philadelphia, PA - 2012
Seattle, WA - 2010
New York, NY - 2009
Maine - 2009
Washington State - 2009
Austin, TX - 2008
Washington DC - 2008
San Francisco, CA - 2007
Burlington, VT - 1997

HOW YOU CAN GET INVOLVED

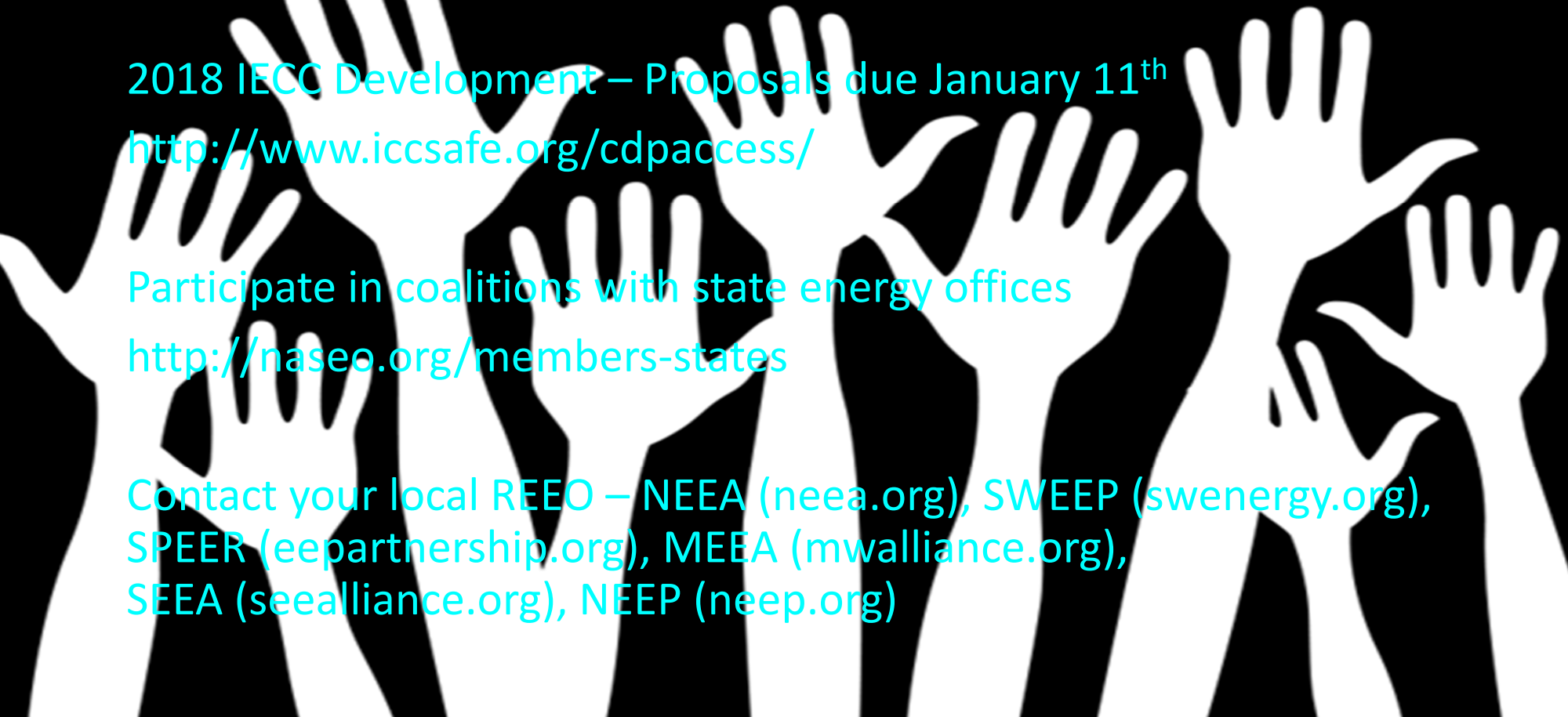
State Energy Offices

Regional Energy Efficiency Organization

Stakeholders

ICC Development process

HOW YOU CAN GET INVOLVED



2018 IECC Development – Proposals due January 11th
http://www.iccsafe.org/cdpaccess/

Participate in coalitions with state energy offices
http://naseo.org/members-states

Contact your local REEO – NEEA (neea.org), SWEEP (swenergy.org), SPEER (eepartnership.org), MEEA (mwalliance.org), SEEA (seealliance.org), NEEP (neep.org)

HOW YOU CAN GET INVOLVED

DOE Energy Codes Conference – March 21-24, 2016, Tucson, AZ

RESNET Conference – Feb 28 – March 2, 2016, Scottsdale, AZ

ARE YOU READY TO PARTICIPATE?

692,132

692,132 residential permits through January - July 2015 (US Census)

Jim Meyers – Jmeyers@swenergy.org

Darren Port – Dport@neep.org

ARE YOU READY TO PARTICIPATE?

1,186,512

Maintaining construction pace (seen through July) estimate 1,186,512 units built in 2015

Jim Meyers – Jmeyers@swenergy.org

Darren Port – Dport@neep.org