#### AGENDA Arkansas Department of Energy and Environment

#### Arkansas Energy Code Stakeholder Meeting Agenda

Zoom Video Conference (no meeting on premises)

https://zoom.us/j/6681558398 877-369-0926 Meeting ID: 668 155 8398

February 5, 2021 (9:00 a.m. – 11:00 a.m.)

- Introduction and announcements
  - a. Process and schedule
- o Review all changes to Arkansas Energy Code
  - a. New sections
  - b. Existing but updated sections
  - c. What's NOT included
- Next Steps: Final approvals, Education, Training, & Outreach

Participants are encouraged to use the Zoom "chat" feature for questions and comments during the presentation.

# **Stakeholder Meeting**

#### February 5, 2021 Arkansas Energy Code



ARKANSAS ENERGY & ENVIRONMENT

# Arkansas Energy Office Introductions

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- Tim Quetsch, Engineer
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- Ryan Burris, Training Project Manager
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- Bourke Reeve, Facilitator
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### **Virtual Meeting Process**

- Attendees will be muted during presentation
- Please submit questions or comments during the presentation via "Chat" feature
- Questions and comments can also be submitted via email <u>energyinfo@adeq.state.ar.us</u>

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• \*6 to unmute phone users



### **Topics Covered**

- 1. Arkansas Update Process
- 2. DRAFT Arkansas Energy Code Version February 5

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- 3. Arkansas Code Draft Next Steps
- 4. Education, Training & Outreach
- 5. Stakeholder Feedback



## **Arkansas Update Process**

2018 IECC Model Code as reference standard
 June 2020 DRAFT
 August 2020 DRAFT

#### •February 2021 DRAFT

•Stakeholder Meetings November 2019, January 2020, June 2020, August 2020

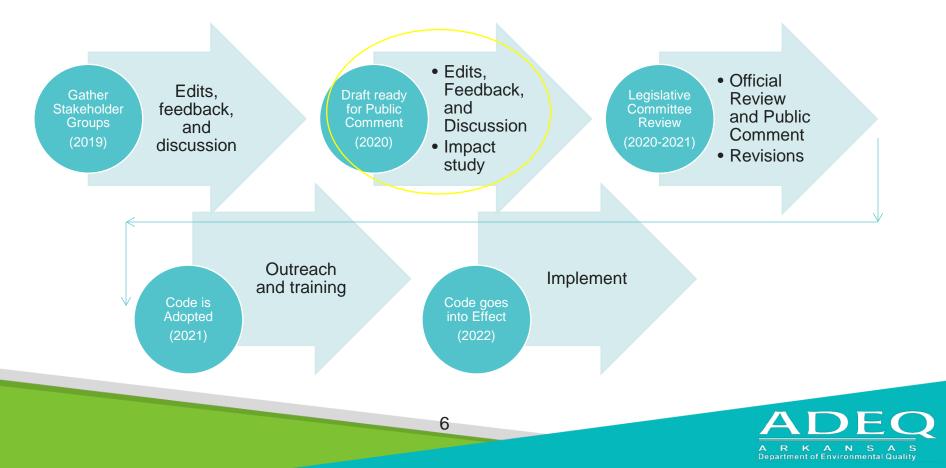
• Subcommittee Workgroup Meetings in March, April, May, July, August, December 2020, January 2021

• Builder Outreach and Surveys July-December 2020.

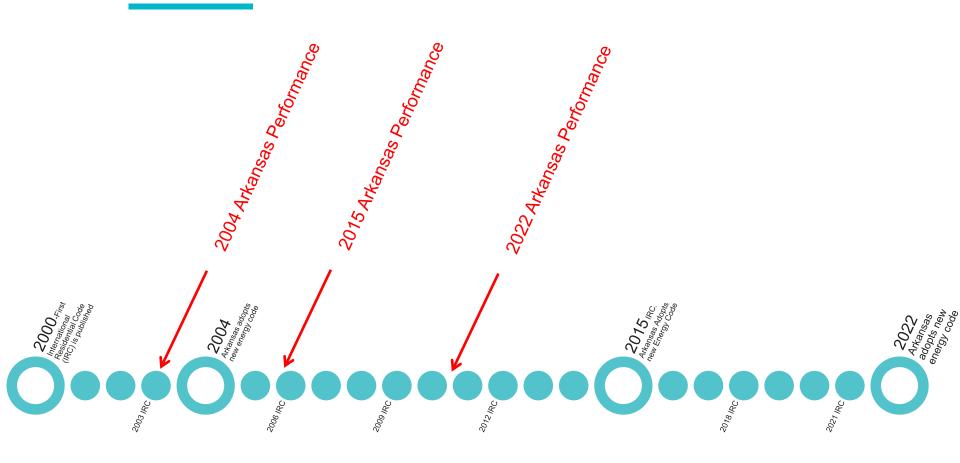
DRAFT Available at

https://www.adeq.state.ar.us/energy/incentives/building.aspx

### Timeline



#### **RESIDENTIAL ENERGY CODE PERFORMANCE**



### What is new-RESIDENTIAL

Duct Testing
Blower Door Testing
LED lighting
Programmable Thermostat
Hot Water Pipe Insulation
OPTIONAL Energy Rating

## What is Modified

•Windows

- •Ceiling Insulation
- •Duct and Envelope Tightness

## What is NOT Included

- R-20 Wall Insulation
- •Slab Edge Insulation
- •Solar Requirements
- •Electric Vehicle Charger Requirements
- •All-Electric Appliances
- Mandatory HERS Rating
- •R-8 Duct Insulation
- •Air Conditioner and Furnace Efficiency/SEER

		2014 AR E	nergy Code		>	2021 AR E	Energy Code					
	2003		2006		2009		2012		2015	2018		2021
High-efficient Lighting	0%				50%		75%			90%		
Windows U-factor	<b>.50/</b> .50				.50/.35		.35/.35			.32/.32		
Optional HERS Rating tradeoffs	NR								Yes			
Ceiling Insulation	<b>30/</b> 30				<mark>30/</mark> 38	<mark>38/</mark> 38	38/49					
Blower Door Testing	NR				NR		Yes					
Vent Fan Efficacy	NR						Yes					
Hot Water Pipe Insulation	NR						3					
Windows SHGC					.30/NR		.25/.40	←		 	.30 .30	
Envelope Tightness(ACH)					7	5	3					
Duct Testing % Leakage					4%-12%	6%	3%-4%					
Duct Testing	No				Yes							
Optional REScheck tradeoffs	NR				Yes							
Slab Insulation	<b>0/</b> 0	0/3			0/10							
Programmable thermostat	NR				Required							
Basement/Crawlspace Wall Insulation				<b>5-13/</b> 5-13	5-13/10-13							
Mechanical Ventilation					Maybe		Yes					
Sticker					Yes							
Pool & Spa controls					Yes							
Duct Insulation	6		8									
Wall Insulation	13				13		20 or 13+5					
Floor Insulation	19				19							
Duct Sealing	Yes				Yes							
Air Sealing	Yes				Yes							
Manual J Equipment Sizing	Yes				Yes							
Manual J provided to code official	NR				NR							

## **Commercial Energy Code**

•Existing: 2009 IECC or 2007 ASHRAE 90.1 •New: 2018 IECC or 2016 ASHRAE 90.1

•Arkansas Commercial Code Amendments add options and flexibility to 2018 standard

•Estimated 32% energy savings over existing code

# Summary-Commercial IECC- 6/2020

Category	2009	2012	2015	2018	
ASHRAE 90.1 Version	2007	2010	2013	2016	
Attic Insulation	个R-38	$\rightarrow$ same	$\rightarrow$ SAME	$\rightarrow$ same	
Roof Deck Insulation	<b>个</b> R-20	个R20-R25	个R25-R30	$\rightarrow$ same	
Wood-framed wall insulation	$\rightarrow$ R-13	个R-20	$\rightarrow$ same	$\rightarrow$ same	
Solar Heat Gain Coefficient	→0.25-0.4	$\rightarrow$ same	$\rightarrow$ same	个0.25-0.36	
Envelope Air Leakage (cfm/ft <sup>2</sup> )	No test	个0.04	$\rightarrow$ same	$\rightarrow$ same	



### **Next Steps**

#### **Education and Training:**

- Outreach to Industry Partners (Summer 2021)
- Education and Training Programs Launched (Summer/Fall 2021)
  - Manual J
  - Best Practices with the new code
  - Duct and Blower Door Training and Equipment
  - ASHRAE 90.1
  - Field Guide publication

#### Arkansas Energy Code Collaborative Convening (Continuing 2021)

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#### New Code Effective Date:

- January 1, 2022
- Testing Effective Date January 1, 2023



## **KEEP IN TOUCH**



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