

## **Ameren Missouri Energy Codes Compliance Collaborative – Meeting Notes**

Thursday, April 25, 2019

EarthWays Center, Missouri Botanical Garden

- I. Welcome to the Missouri Botanical Garden EarthWays Center
- II. Safety tip: Do's and Don'ts of Elevator Safety
- III. About the Collaborative:
  - Series of meetings held quarterly
  - Purpose is to bring various people and professions together to discuss energy codes and energy code compliance
  - Collaborative will travel around Ameren's territory to incorporate folks from throughout the region
  - Meetings will be held in person but will maintain an option to call-in and attend virtually
- IV. Introductions – Name, Job Title and Employer, Location of Workplace, Interaction with the Energy Code
  - Ian Blanding, Program Manager for the Ameren Missouri Residential Energy Code Support Program/MEEA
    - o Based in Chicago, works on code compliance, code adoption, provides technical assistance on energy code matters
  - Robert Poteet, Multi-Discipline Inspector/City of University City, President of Missouri Association of Building Officials and Inspectors
  - Gretchen Waddell Barwick, Assistant Chapter Director/Sierra Club Missouri
    - o Based in St. Louis, working primarily on energy code adoption
  - Alex Scharf, Assistant Vice President for Public Policy/Home Builders Association of St. Louis & Eastern Missouri
    - o Based in St. Louis, works on code education and adoption efforts
  - Matt Belcher, Verdatek Solutions, LLC/ Code Consultant for Ameren Missouri's Energy Code Support Program/Former Builder/Former Code Official
    - o Based in St. Louis, Provides energy code technical assistance through the program
  - Loretta Hiner, Housing Analyst/City of St. Louis Affordable Housing Commission
    - o Based in St. Louis
  - Lisa Kremer, Manager of Energy Policy and Resources/Missouri Division of Energy,
    - o Based in Jefferson City
  - Cherylyn Kelly, Policy Analyst/Missouri Division of Energy
    - o Based in Jefferson City
  - Eric Wright, Planner, Energy Efficiency and Renewable Energy/Missouri Division of Energy
    - o Based in Jefferson City
  - Chris Burgess, Senior Building Policy Manager/MEEA,
    - o Based in Chicago, IL
  - Nicole Westfall, Building Policy Associate/MEEA,
    - o Based in Chicago, IL
  - Cullen Harris, Energy Engineer/Capital Consultants
    - o Based in St. Louis
  - Rick Shilliday, Energy Auditor/Blue Sky Energy Rating
    - o Based in St. Louis, provides energy audits and code compliance, works in IL
  - Richard Reilly, Energy Programs Manager/EarthWays Center,

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- Based in St. Louis, Focuses on outreach and education on energy efficiency
- Joseph Moore, Deputy Building Commissioner/City of Maryland Heights,
  - Based in Maryland Heights, has been involved in codes for 25+ years as a code official and instructor
- Ralph Wafer, Former Architect serving as a plan examiner for the City of St. Louis,
  - Based in St. Louis, provides education on new code requirements through the plan review process
- James Trout, Freelance in energy efficiency and indoor air quality/Owner of Trout PC,
  - Based in St. Louis, former builder, formerly at Division of Energy, worked with Sierra Club on code adoption efforts
- Jessica Deem, Architect and Owner/Virescent,
  - Based in St. Louis, formerly LEED consultant in Switzerland, hoping for better code enforcement
- Travis Wood, Policy Program Manager/ Missouri Energy Initiative
  - Based in Jefferson City but Travis is based in St. Louis
- Andrew Linhares, Regional Director and Senior Council/ Renew Missouri
  - Operates statewide, advocates for renewable energy, recognizes energy codes drive energy and cost savings
- Jacob Gorelik, Engineer and Project Manager/St. Louis County Government
  - Based in St. Louis County, interested to know what is happening with energy codes
- Emily Andrews, Executive Director/USGBC Missouri Gateway Chapter,
  - Based in St. Louis, worked on adoption of codes with the Sierra Club
- Malachi Rein, Project Manager and Facilities Management/St. Louis County Government
  - Based in St. Louis County, tasked with improving building performance through efficiency upgrades
- Rich Wright, Manager for Business Programs/Ameren Missouri,
  - Based in St. Louis, interested in the discussion of codes and how that intersects with Ameren's New Construction Programs
- Jeff Friedrich, Project Manager/Ameren Missouri,
  - Based in St. Louis, runs residential Home Energy Report

### V. About the Ameren Missouri Residential Energy Code Support Program

- Missouri is a home rule state – its patchwork of energy codes makes it difficult to provide support for compliance
- Resources at the local level are limited
- MEEA has found that a better understanding of what's in the energy code and why it's important from a building science perspective results in better compliance with the code
- Better customer satisfaction – codes are designed to work as a system – leads to improved indoor air quality, occupant comfort, etc.
- Ameren program is modeled after a code compliance improvement program MEEA ran in Kentucky funded by the U.S. Department of Energy

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- Program includes four key pillars – Compliance Collaborative, Energy Code Consultant, In-person Trainings, Technical Resources
- Program is funded for three years, running from March 1, 2019 to December 31, 2021

### VI. Overview of the Program

- Code Compliance Collaborative
  - i. Focus is on compliance – facilitate discussion so all professions have the same understanding of local energy codes and how they are implemented
  - ii. Hoping to engage a diverse range of individuals/groups that work with the energy code
  - iii. Collaborative will travel throughout Ameren’s territory in order to engage professions throughout the territory – useful to identify similarities and differences and level of compliance assistance between areas
  - iv. Other collaboratives in the Midwest
    - 1. IL, MI, MN, MO, NE
    - 2. NE is the oldest
    - 3. Goals of collaboratives varies from state to state, all focus on code compliance
  - v. Next meeting: Wednesday, July 24, 2019
- Energy Code Consultant – Matt Belcher
  - i. Travels around Ameren’s territory proactively engaging stakeholders, providing information about the program, answering questions and providing energy code support
  - ii. Report from the Field
    - 1. Program started March 1, 2019
    - 2. Reception in state has been very good – biggest hurdle to compliance seems to be knowledge, but there is a thirst for education and training on codes
    - 3. Big concern as a business operator/developer is “what is my liability” – a lack of understanding of the code requirements can cause problems
    - 4. Hopes to increase equity for builders – acting as a resource for builders across Ameren’s territory
    - 5. Motto for program: “I don’t know everything, but I know where to go to get answers”
    - 6. Discussions with folks around the territory will inform the collaborative and training program
- In-person trainings – Southface Energy Institute
  - i. Discussions from the field and in collaborative will inform trainings. Trainings will be customized to location and local codes
  - ii. Trainings are Free and focused on building science, best practices, introduction to energy code requirements
  - iii. Upcoming Trainings
    - 1. 4 trainings in Program Year 1:

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- a. May 21, 9am-3pm -Monsanto Center, St. Louis
      - b. May 22, 9am-3pm, Jefferson City
      - c. August 20, HBA St. Louis and Eastern Missouri
      - d. August 21, Sikeston, MO
    2. 8 trainings/year in Program Year 2 and 3
  - iv. Are the trainings the same in each location?
    1. Yes – the first series of trainings will cover the same basic concepts, with some customization to the location
    2. Content of the trainings will evolve as the program continues and will be informed by feedback in the field, from the collaborative and from the trainings
  - v. Who are the trainings for?
    1. Introductory level
    2. Focused on residential construction
    3. Primarily geared towards residential builders, energy raters, code officials
    4. Great for appraisers, real estate professionals, city council members, etc.
  - vi. Would you consider this Residential Energy Code 101? Or is this geared towards the implementation of the code?
    1. Content is mixed – the basic construction concepts will be covered, but it is more of an application-focused class
    2. Expecting a diverse group of attendees – content of the class will be geared towards the needs of the audience
  - Technical Resources
    - i. Key educational materials will be developed based on identified issues in the field
      1. Will be useful for inspectors/code officials/builders, but also plan reviewers – plan reviewers don't have an understanding of what things actually look like in the field – only what they are projected to look like.
      2. Experience says people don't know what the energy code is or how to use it. Understanding what is in the code beyond the prescriptive table is key to success
  - Question for code officials - How are you integrating energy code compliance into your day to day/quality control?
- VII. Missouri Baseline Study Findings – Eric Wright, Missouri Division of Energy
- Overview
    - i. Single family never occupied homes
    - ii. Data collection from March – June 2016
    - iii. Compared to the 2009 IECC baseline to assess compliance levels
    - iv. All homes used the prescriptive path to comply with the local energy code
  - Key Item Analysis

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- i. Basement wall insulation – biggest opportunity for energy savings across the state
  - 1. Important to incorporate into communications for circuit rider as well as trainings
- ii. Insulation Quality – 75% non-compliant. Common issue in all states MEEA and DOE has analyzed
- iii. Windows – unique issue to MO. Most states in DOE studies far exceeded window efficiency requirements due to changes in market availability, but that is not always true in MO
- iv. Air Leakage – most builders far exceed air leakage requirements, despite testing not being a requirement in most jurisdictions
- v. Lighting efficiency – common issue in all DOE field study states
- vi. HVAC sizing analysis
  - 1. Average is 1.5 tons oversized
  - 2. Any insight as to why builders are putting in the wrong sized unit?
    - a. Historically, size of AC was determined by square feet. That's how older HVAC contractors have designed things and have taught people coming through their business how to design things.
    - b. Fear of the hottest day of the year – they'll cheat a little bit (oversize) even if they do the calculation. ACCA allows for 125% oversizing
    - c. Another component is trust- if the HVAC contractor can't trust the general contractor to deliver the building envelope in the plans, that will cause them to oversize. Should start with envelope when things are going wrong, not HVAC equipment.

### VIII. Discussion| Goals of the Collaborative

- Questions
  - i. What is the focus?
  - ii. Any Annual Goals?
  - iii. Should we develop subcommittees?
  - iv. Who else should be involved/who is missing?
  - v. How do we coordinate with other groups?
  - vi. How can we inform and support the program?
- Discussion
  - i. Goals:
    - 1. Maintain the same level of engagement from the first meeting.
      - a. MEEA will incorporate a call-in/webinar option for future in-person meetings
    - 2. Support/promote the Ameren Code Support Program through word of mouth and marketing within professional channels.

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- a. Bring awareness to other Ameren Missouri rebate and EE programs.
- ii. Focus:
  1. Collaborative and program should focus some efforts on renovations and the energy code. Develop guidance, resources and incorporate how the energy code addresses renovations in the training.
  2. Improve understanding from all professions in the construction industry. Focus on helping professions understand and care about why energy code requirements exist.
    - a. Emphasize quality of workmanship and potential liability.
  3. Explore opportunities for homebuyer engagement and education.
  4. Improve understanding of ventilation requirements.
- iii. Who else should be involved?
  1. Gather more representation from builders and remodelers in the collaborative. Work with St. Louis and other HBA's to facilitate this engagement.
  2. Invite supply houses and material suppliers to the next meeting.
  3. Engage realtors and appraisers
- iv. Subcommittees in Development:
  1. Residential Subcommittee
  2. Commercial Subcommittee
  3. Real Estate Subcommittee
- v. Suggestions for Next Meeting:
  1. Matt Belcher to provide more in-depth details from interactions with professionals in the field. What are builders/ code officials saying and how can the collaborative address it?
- vi. Other Opportunities:
  1. Develop statewide stakeholder database
  2. Support builders in marketing above code and best construction practices