Insights from the Field

Understanding the trends, barriers and opportunities to advance the energy performance of commercial buildings across the Kansas City region









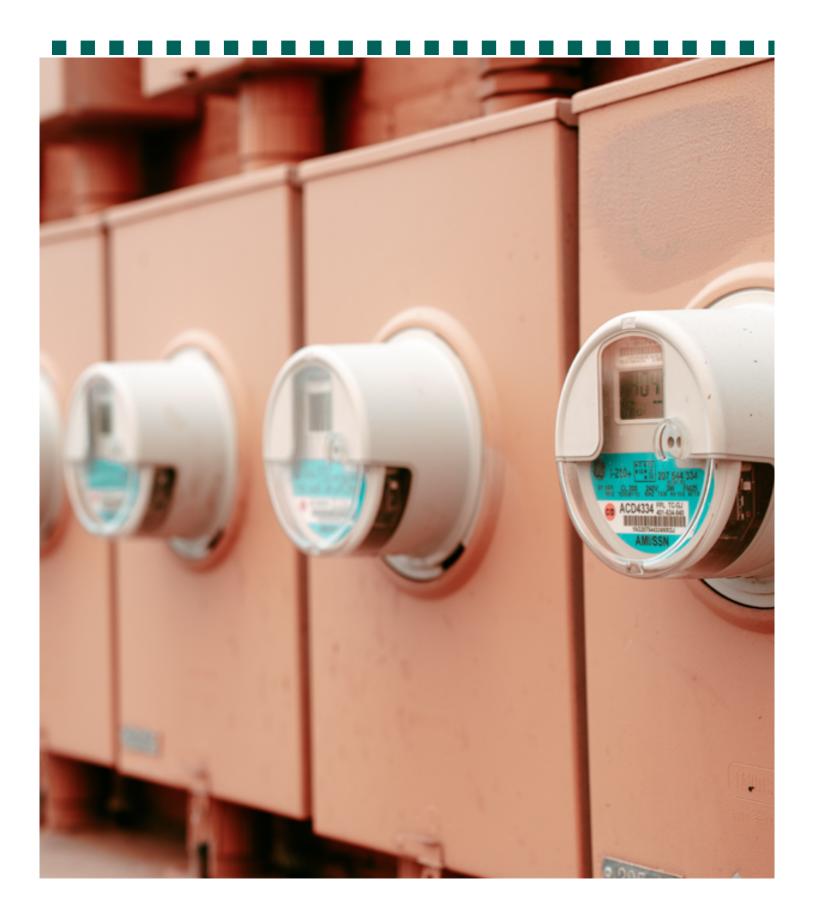


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Stakeholder engagement and report authored by Ashley Sadowski, Building and Energy Program Director, Mid-America Regional Council (MARC).

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Process

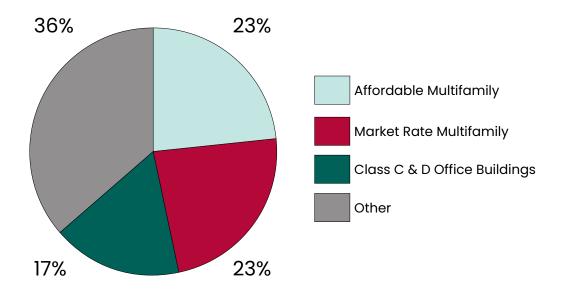
Conducted in summer 2025, the following analysis evaluates the current state of market activity and barriers in the growth of the high performance building industry, including workforce skill gaps, limitations in technical knowledge among building decision-makers, and financial constraints that impede market innovation.

Insights were gathered through:

- 1. Interviews with 21 building decision-makers*.
- 2. A roundtable discussion with workforce leaders in the region.
- 3. An energy code forum with elected officials from municipalities within Johnson County.

Recognizing that there are areas of the real estate market which are disproportionately challenged with advancing their energy performance, the following analysis prioritized interviewees who influence affordable, multifamily housing; market rate multifamily housing; and Class C and D commercial office properties.

Below is a breakdown of the 21 interviewees and the categories of buildings they influence with most covering multiple building types. Other building types managed by stakeholders include Class A and B office buildings, industrial, K-12, university, public buildings, single-family, mixed-use, data centers, health care and retail.



^{*}For participants who could not accommodate a live interview, responses were provided in writing.

: Field Experts

Individual Interviewees

Jill Arnold
Jonathan Arnold

Brennan Crawford Joy Crimmins

Leah Fitzgerald Shawn Frost

Dana Gordon Dave Herron

Shannon Hesterberg Matthew Hollingsworth Shalaunda Holmes

Shalaunda Holmes Albert Kelley

Brian Lull

Dan Musser Jereme Nollett

Mindy Rocha Stacy Siebert

Steve Spurgeon Sheryl Vickers Anna White Brandon Wikoff lst Priority Heating and Cooling Arnold Development Group

Community Housing of Wyandotte Co.
CBRE
CBRE

Grayson Capital
TRC Companies

(Evergy Implementation Partner)

Herron and Partners Community Builders of KC

Hoefer Welker

Urban Neighborhood Initiative

Aleo Prime

Central Bank of Kansas City

Newmark Zimmer
McCown Gordon Construction

CJ Industries Johnson County

Navitas Select Sites The Way Home US Engineering Co-Owner Principle

Executive Director
Regional Sales Manager
Managing Director

Senior Director of Design and Construction

Energy Efficiency Outreach Rep III

Owner

Chief Operations and Real Estate Officer

Architectural Designer

Housing and Real Estate Development Director

Owner

Vice President

Executive Managing Director Commissioning Executive

President

Assistant Division Director of Maintenance

Business Development Manager

Owner/Broker
Executive Director
Executive Vice President

Workforce Roundtable

hosted by the Regional Workforce Intelligence Network

Charlie Bentley Kauffman Foundation

Jeremy Bonnesen Summit Technology Academy at the Missouri Innovation Campus: Lee's Summit

Monica Brede Wyandotte Economic Development Council
Cindy Brittain Kansas City Area Development Council
Tina Chace Platte County Economic Development Council

Clarinda Dir University of Central Missouri

Gina English St. Louis University Transformative Work Academy

Julia Kesarwani KC Common Good Jordan Lea Raymore, Missouri

Bridget Mendoza Clay County Economic Development Council

Patrick O'Brien KC360

Liz Ogle Grandview Chamber of Commerce
Keely Schneider Workforce Partnership (KS)

Lara Vermillion Blue Springs Chamber of Commerce
Andrew Weisberg Overland Park Chamber of Commerce

Energy Code Forum hosted by Climate Action KC

Laurel Burchfield Staci Chivetta Chris Evans Hands Jan Faidley Becky Fast

Josepha Haden Chomphosy

Janeé Hanzlick Logan Heley

Jen Hill

Jennifer Jones-Lacy

Mike Kelly Jacob Laha Nikkie Lee Scott McCullough Michael Poppa Amy Rider

Julie Sayers Les Smith Laura Smith Lee Story Alan Sunkel Wanda Vaughn Beccy Yocham

Inas Younis

Shawnee, KS Merriam, KS Merriam, KS Roeland Park, KS Johnson County, KS

Mission, KS

Johnson County, KS Overland Park, KS Roeland Park, KS Roeland Park, KS Johnson County, KS

Merriam, KS Prairie Village, KS Lenexa, KS

Lenexa, KS
Roeland Park, KS
Merriam, KS
Lenexa, KS
Gladstone, MO
Mission, KS
Fairway, KS
Leawood, KS
Mission, KS
Lenexa, KS

Overland Park, KS

Councilmember Councilmember Councilmember

Mayor

Commissioner

Councilmember

Commissioner Councilmember Councilmember

Assistant City Administrator of Finance

Commission Chair Councilmember

Deputy City Administrator

Community Development Director

Mayor

Mayor

Councilmember

Mayor
City Administrator
Councilmember
Councilmember
Councilmember
City Manager

Councilmember



Key Interview Insights

Affordable Multifamily

As nonprofit organizations, the affordable housing providers we interviewed seek solutions that lower energy bills for their residents, allowing more money to be put towards their mission. With limited capital, affordable housing providers often make decisions on energy efficiency when existing equipment begins to fail. This can result in a narrow window of time to make selections as they try to balance initial equipment costs with longterm utility burdens.

Affordable housing providers are intentional in pursuing performance goals like net-zero energy, Passive House and LEED Certification for their new buildings. They view these standards as a reliable path to grow the value of their buildings, reduce energy bills and provide a variety of community benefits. When energy standards align with funding, such

as LIHTC or HUD funds, it increases the possibility that standards can be successfully met. Providers shared that they have worked with their design and engineering teams to incorporate the appropriate technologies and building practices into their projects to meet these goals.

Despite a focus on eliminating energy burdens and an aspiration for maximizing performance, affordable multifamily providers expressed a challenge in overcoming the split incentive between ownership paying for capital improvements and tenants being the major beneficiaries of this investment.



Shannon Hesterberg

Community Builders of Kansas City

"We have been looking at transitioning assets to 100% electric and adding solar. In our multifamily [properties], we are faced with expenses to upgrade electrical service. These are proving to be prohibitive in making the changes. Residents pay their own [utility] bills, and our housing is mostly subsidized, so the rents are fixed. Thus, we cannot recover our investment through the rent."

Given their limited access to capital and the split incentive, affordable housing providers stated that additional subsidy via grants and low-cost financing is required to achieve their high-performance goals. Local CDFI lenders are very interested in underwriting energy measures into their lending but are still early in this exploration.

One prominent CDFI is considering servicing PACE loans for upgrading aging office buildings, and some lenders have partnered with Greenhouse Gas Reduction Fund award recipients to create energy-related lending products for affordable housing projects.



Brian Lull
CentralBankofKansasCity

"PACE is a nice add to the capital stack, a low-cost equity injection to the borrower. As we dive into PACE, we want to know the benefits of each energy-related strategy and its financial impact. [We] could use more information on the process of energy audits and available and emerging technologies."

Educating our local lenders will be a critical step in opening favorable financing opportunities for affordable housing providers. Even with limited resources, affordable housing providers are making progress in integrating energy expertise into their work but are still challenged in some areas of technical capacity.

Brennan Crawford

Community Housing of Wyandotte County

"Whenever possible, we send a community health worker with their property management team on site visits to understand the health impacts of housing conditions. We also have conducted blower door tests on our homes in the past, but we struggle to create an energy standard across the portfolio given the limited availability of resources to support building performance in our community."



Affordable housing providers rely on architects and engineers for technical guidance on larger projects, but will lean on mechanical contractors and maintenance staff for retrofit projects or equipment replacement. Updating owners, contractors and maintenance staff on the latest technologies is important to avoid outdated perceptions of new systems.

Broader education, as well as one-on-one technical support to address technical and financial knowledge gaps, will be vital to widespread market adoption.

Affordable housing providers struggle to stay up to date with local utility incentives, federal programs or PACE financing, and welcome additional training. They also expressed an interest in learning how to better track and manage their energy usage to maximize savings.

Albert Kelley

Aleo Prime

"Heat pumps can sometimes be perceived as a bad word — older maintenance workers can be resistant to training up on new systems and are concerned about an increase in complaints by tenants. We help to educate that this is a whole new technology that performs very differently than what you remember a decade or more ago."





Market-Rate Multifamily

Market-rate multifamily is very budgetconscious but does consider other factors when making energy-related decisions.

Especially for larger projects, this sector of the market relies heavily on engineering expertise to guide them on the health of their mechanical systems and cost-effective improvements.

A multifamily owner expressed concern about relying on contractors and manufacturers for reliable information as they are motivated to upsell owners on equipment.

A residential designer mentioned that his building envelope approach utilizes off-the-shelf materials and hopes the widespread adoption of better energy codes will lead to further innovation in materials and practices. He was able to successfully work with a contractor who had never incorporated high-performance practices to achieve a result close to a Passive House standard.

Multifamily building owners see issues like interest rates and construction costs as being major factors in determining timing of capital improvements. These factors are making it more difficult to move forward on energy upgrades. Some developers are looking for opportunities to innovate in a challenging market.



Shawn FrostGrayson Capital

"The most important elements to upgrade are the building veins: MEP systems. This is your largest impact when improving existing facilities. In addition to capital improvement budgets, cost savings over the lifecycle of the building, long-term asset value, occupant comfort and alignment with ESGs also drive decision-making."

Jonathan Arnold

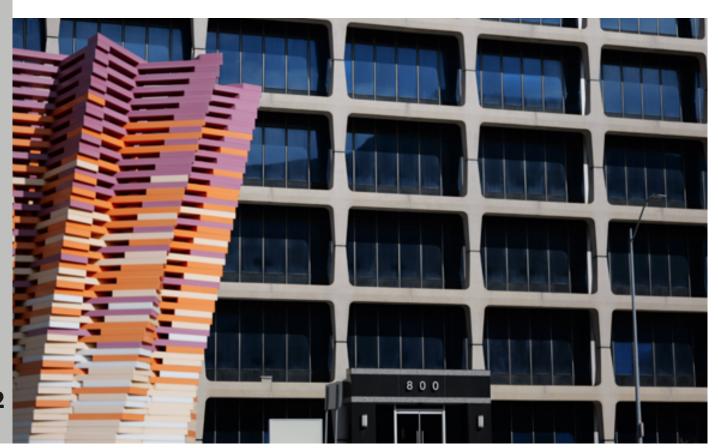
Arnold Development Group

"Long-term, I am bullish on the prefabrication of certain components in buildings that can reduce overall cost and improve quality. There should be more done to incentivize buildings that have an increased lifespan since municipalities could potentially inherit the issues that come with poorly constructed assets in their communities."



A multifamily building owner expressed that technologies and best practices are constantly evolving, and they would like to be aware of what to embrace or avoid. The increasing complexity of tax credits is also an area where multifamily property owners need additional assistance from knowledgeable tax professionals. Case studies were

suggested as an effective way to help housing providers understand how their peers are improving their bottom line. One stakeholder recommended case studies to convey the step-by-step process of decision-making and implementation, and to share the financial and social benefits achieved along the way.



Commercial Office

Commercial offices have seen a lot of disruption in a post-pandemic environment where remote work has become commonplace in many sectors of the economy. The commercial office is seeing signs of recovery in certain areas

of the market, but properties lesser in quality and in less desirable locations tend to maintain higher vacancy rates. These office buildings tend to be more energy inefficient and very budget conscious.



Sheryl Vickers
Select Sites

"The math has to work, and the costs have to bring some kind of return on investment that are clear and easy to understand."

Office decision-makers expressed that they have leaner property management support and face barriers in understanding available technical and financial resources.

A building owner conveyed that many maintenance employees "do not think outside of the box" when it comes to energy efficiency. Especially where tenant demand is low, energy decisions are often not prioritized. Alternatively, Class A office buildings operate in a highly competitive market aimed at

soliciting or maintaining large company footprints.

The demand for quality drives these areas of the market to be more considerate of energy performance and thermal comfort, though office decision-makers still view aesthetic measures as being prioritized over energy. Owners tend to want a payback of less than five years and will use a variety of technologies to achieve performance.

Building decision-makers in the office market can be mixed on their knowledge or usage of incentives. Some stakeholders expressed that they utilize Evergy incentives while others cited limited staff capacity to manage the paperwork.

A contractor noted that custom incentives require additional engineering review, so timing should be considered. Public office building owners tended to look for opportunities to incorporate energy performance metrics and stated that life cycle cost analysis helped to make the case for additional measures.

One stakeholder noted that a lack of staff capacity to take on special projects can be a barrier for incorporating more efficient technologies. Several interviewees mentioned leaning on outside technical experts for additional support.

One example is utilizing engineering services to perform retro commissioning and monitoring, which evaluates whether the building is operating as intended.

Jereme Nollett McCown Gordon Construction

"Retro commissioning and monitoring can offer a longer picture over an extended time period that can be fine-tuned and tailored to the occupant to save on utility costs. Once set up, it requires less manpower over time while energy savings will continue to grow."



An energy savings company (ESCO) was also mentioned to support energy upgrades when owners have limited technical or financial capacity to manage projects.

Historically popular among municipalities, states, health care, schools and universities, ESCOs can serve other building types that are typically larger in size and have a consistent use and occupancy. ESCOs will identify energy savings opportunities, maximize local and federal incentives, and pay for project upgrades with the utility dollars saved.

Workforce Considerations

With the advancement of building codes and the increased popularity of owner-led performance metrics, building owners expressed that our workforce needs to understand how each element of construction

contributes to the project's desired energy goal.

This holistic approach can be a culture shift, especially in residential applications.



Anna White

The Way Home

"Most [residential] general contractors don't really understand the cause and effect of how all the systems and the envelope of a house interact in a truly nuanced manner. Because the work is split across so many subs, you need to have a general contractor who is keeping a close eye on how it is all interwoven."

Interviews indicated mixed sentiment about the reliability of the sector's workforce. Building decision-makers representing larger retrofit or new construction projects tended to be satisfied with the performance of their general contractors and subcontractors.

Conversely, small to medium project stakeholders expressed concern about the lack of skilled trades in general and especially in the energy sectors. A housing provider mentioned the desire to work with MBE/WBE vendors but struggled to find sufficient qualified vendors.



Small to medium contractors also expressed concern about having the right skills on their teams. A commercial contractor observed that smaller contractors are getting smaller and bigger contractors are getting bigger as they tie themselves to the large industrial projects in the region.

This can make it difficult for smaller contractors to acquire administrative support like project managers and estimators or keep a consistent crew throughout the year.

Sufficient training in emerging technologies can also be a barrier for contractors interested in growing their technical expertise.

An HVAC contractor expressed a strong interest in installing VRF systems, but training options were limited and often sold out.

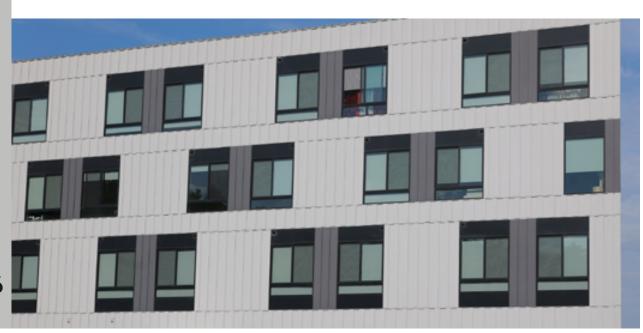
A building owner observed that a local community college's workforce training event lacked up-to-date energy technologies.

Shalaunda Holmes

Urban Neighborhood Initiative

"Where are the anerobic digesters, tankless hot water heaters, geothermal systems and solar? These are the jobs that our workforce needs to be prepared for. Our trade schools can't just train for what we currently have but also need to be prepared for emerging technologies."





Roundtable Findings

In a roundtable discussion with workforce development organizations from around the region, experts shared similar observations regarding the workforce gaps in the metro. Deepening the conversation, these experts identified specific barriers that limit access to training, job opportunities and long-term career paths.

Growing programs to a scale that can effectively meet the demands of the industry and cater to the needs of potential employees and employers was reiterated several times in the discussion.

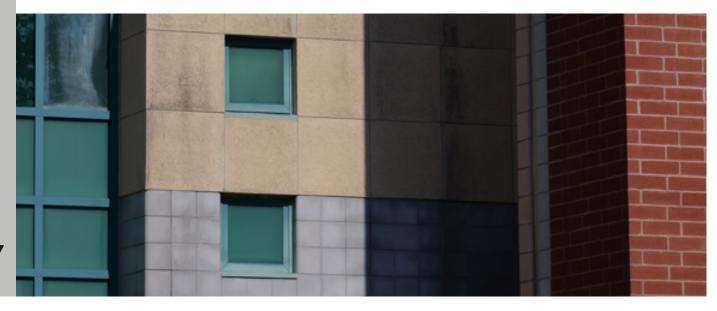
However, diminished capacity was also a consistent topic of concern.

Steve Bennett

Johnson County Community College

"There are opportunities there, if you have technicians who are already performing those jobs. There are opportunities to offer training and credit to advance in specialized areas. You are going to bring new people in, but your existing workforce is going to advance as well.

In the construction industry, we need over 600,000 qualified tradespersons right now and needs are only going to accelerate with Al-related construction. Almost all construction management students were hired right out of our training program. We are 40% over capacity right now with current enrollment. We teach a green building class that educates contractors on LEED and WELL building principles. Data center facilities are going to need lots of energy, and we don't have enough resources to support those demands while lacking the infrastructure for accommodating energy conservation."





Charlie Bentley

Kauffman Foundation

"During a recent grantee orientation, I met with several workforce development-related organizations. When asked what their greatest anticipated challenge was, many of them mentioned recent federal cuts to their workforce initiatives. There is a fear on the horizon that the groups that need to equip our workforce will be at reduced capacity."

Despite many technical and financial headwinds for workforce development programs, experts agree that there are time-tested strategies for growing and upskilling the workforce in the building and energy industry.

Keely Schneider

Workforce Partnership

"There are programs out there, but they are not sufficient for future needs. Current programs are at or over capacity. We can't find enough instructors. Most of the people qualified to teach these programs can make more money working in the field.



Apprenticeship will be absolutely critical for this work, hands down. It is the gold standard in training. It solves the issue of having to work while training for a job. Apprentices receive a nationally recognized credential, they have transparency in precisely when their wages will increase, and you can also use apprenticeship to upskill incumbent workers. It's a wonderful tool that we need to keep pushing for."

Several experts noted that internships are a strong entry point for community college students, giving contractors the chance to work with a potential employee and giving the intern the chance to know the company and get a feel for working in the field. Internships can often turn into formalized apprenticeships and are able to offer prior credit for work performed during the internship.

Based on conversations with building decision-makers, contractors and workforce development

organizations, we concluded that the workforce gaps are significant, but the solutions are known and can be addressed with the right resources in place. Scaling existing programs to grow enrollment, recruitment and incentives for instructors, integration of emerging technologies, development of specialized career paths and low-barrier training opportunities are all reliable strategies to grow the regional workforce and advance the energy performance of our buildings.

Regional Policy Drivers

There has been increasing interest among elected officials in several Johnson County municipalities to coordinate the adoption of the 2024 International Energy Conservation Code (IECC). Though many energy metrics and standards exist and are utilized in the region, the energy code would set a floor for a minimum level of performance.

At a recent meeting, several of these municipalities came together to discuss the impact of this change and the process to synchronize adoption. Elected officials recognized that this could simplify code compliance across multiple cities and could possibly lead to coordinated adoption in future code cycles.

There were several action steps that were mentioned to support this initiative including deepening conversations between staff and elected officials on the topic, understanding the impact of high-performance building practices across multiple building sectors, creating guidelines for cross-jurisdiction adoption, developing workforce training, and broader outreach with the regional real estate community.

Stakeholders identified existing assets that could support successful implementation, including an organized effort between Johnson County building officials as well as Johnson County's contractor program that can incorporate code changes into its curriculum.

Though early in its process, creating a more streamlined approach to code adoption is favored by many stakeholders in Johnson County.



