

# Retrofit reality check: Overcome challenges and maximize opportunities in commercial and residential buildings

# Climate + Clean Energy Solutions for everyone.

The knowledge, people, and  
resources to solve our biggest  
energy challenges.



Join us  
June 12-16  
#Decarb4Good

We're proud to be a  
partner of  
Net Zero Buildings  
Week!

Learn more at:  
[netzerobuildingsweek.org](http://netzerobuildingsweek.org)

**DECARBONIZE**  
**FOR GOOD**  
#Decarb4Good

# Meet our Moderator: Kathy Greiner



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**Repairing homes,  
revitalizing communities,  
rebuilding lives.**



Rebuilding Together Minnesota, an affiliate of Rebuilding Together, Inc., has been preserving homes and revitalizing communities since 1997. We work year-round to sustain healthy neighborhoods and ensure that people in need can live independently and safely in their homes.

**Safe homes and communities for everyone.**



**Net Zero  
Buildings  
Week**

**DECARBONIZE**

**FOR GOOD**

#Decarb4Good

We think the  
hottest trend  
in retrofits is:

Figuring out how to do  
deep energy retrofits  
for 3.5 MILLION  
buildings each year!

## Dean Stanberry, SFP, CFM



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# Who is IFMA?

The [International Facility Management Association \(IFMA.org\)](https://www.ifma.org) is the world's largest and most widely recognized association for facility management professionals, supporting over 24,000 members in more than 100 countries. Since its founding in 1980, IFMA has guided facility management through its evolution from an underdefined and unrepresented occupation to a globally respected profession.



# Resources

**Building Decarbonization Resources**

Overview & Awareness ↓ Decarbonization Guides & Roadmaps ↓ Frameworks ↓  
References & Tools ↓ Policy & Initiatives ↓ Forums & Blogs ↓

### Overview & Awareness

**USGBC Green Building and ESG: What You Need to Know**

ESG – or Environmental Social Governance – is everywhere you look these days. What does ESG mean, and why does it matter? Recent current economic, public health, and social justice crises have intensified the already surging interest in ESG. ESG provides a framework to describe governance, business strategy, and expectations. Green building does the work and provides the evidence. Green building is where the rubber meets the road, and companies can demonstrate that they are walking the talk. ESG provides information about organizational governance and management. Stakeholders use this information in their investment decision-making and asset management.

**Deloitte's Sustainability Action Report: Survey Findings on ESG Disclosure and Preparedness**

Deloitte commissioned an online of 300 executives at publicly owned companies with a minimum annual revenue requirement of \$500 million or more, as well as conducted interviews to increase the total sample size to 100 in each of the following industries: consumer products; financial services; life sciences and health care; oil and gas; and TMT (technology, media and telecommunications). This study finds that Environmental, social, and governance (ESG) concerns continue to ratchet up as stakeholders increasingly expect a company's business strategy to align with its sustainability commitments, priorities, and requirements. It's evident that sustainability reporting and disclosure are more than "check-the-box" compliance exercises. ESG is about risk and opportunity. It could underpin your strategy and have the potential to unlock strategic possibilities.

**Green Building Provides The Foundation for ESG Reporting in the Property Sector**

Green building can provide a credible, defensible foundation for ESG reporting. Green building certification shows that a company is taking specific actions and, increasingly, demonstrating real world performance outcomes. These are not opinions or self-claims. Rather, they are aligned with the values and beliefs of established, publicly available criteria.

<https://pages.ifma.org/decarbonization>

**ESG + Facility Management**

### What is ESG?

ESG stands for environmental, social and governance.

It's affecting all industries, including facility management, and is becoming increasingly important for businesses as they strive to meet their social and environmental responsibilities.

**But how does ESG impact FM?**

First, facility management companies are feeling the pressure to adopt sustainable practices to be part of the solution to human activities' negative impact on the environment and society. Clients and stakeholders are emphasizing ESG considerations when selecting service providers. Those FM firms demonstrating their commitment to sustainability and social responsibility may win more contracts and retain clients while helping improve our world.

Second, ESG performance can have a significant impact on a facility management firm's financial performance. Companies that fail to address ESG risks may face financial and reputational risks. However, those proactive in addressing ESG concerns may benefit from lower operating costs, improved brand reputation, and access to new markets and investment opportunities.

Third, facility management firms play a unique role in promoting sustainable practices and reducing the environmental impact of buildings and facilities. By adopting ESG practices and promoting sustainability to clients and stakeholders, they can contribute to a more sustainable and responsible built environment.

**Download Infographic**

<https://pages.ifma.org/esgfm>

# Resources

## Department of Energy – [Better Buildings Initiative](#)

- [Building Envelope Technology Campaign \(ornl.gov\)](#)
- [Smart Energy Analytics Campaign | Better Buildings Initiative](#)
- [Energy Management Information Systems | Better Buildings Initiative](#)
- [Integrated Lighting Campaign \(energy.gov\)](#)
- [Integrated Systems Packages | Building Technology and Urban Systems \(lbl.gov\)](#)
- [MEASUR | Department of Energy](#)
- [Building Energy Data Exchange Specification \(BEDES\) | Department of Energy](#)
- [Building Performance Database \(BPD\) | Department of Energy](#)
- [50001 Ready Program | Better Buildings Initiative \(energy.gov\)](#)
- [Water Savings Network | Better Buildings Initiative \(energy.gov\)](#)

## Other Industry Resources

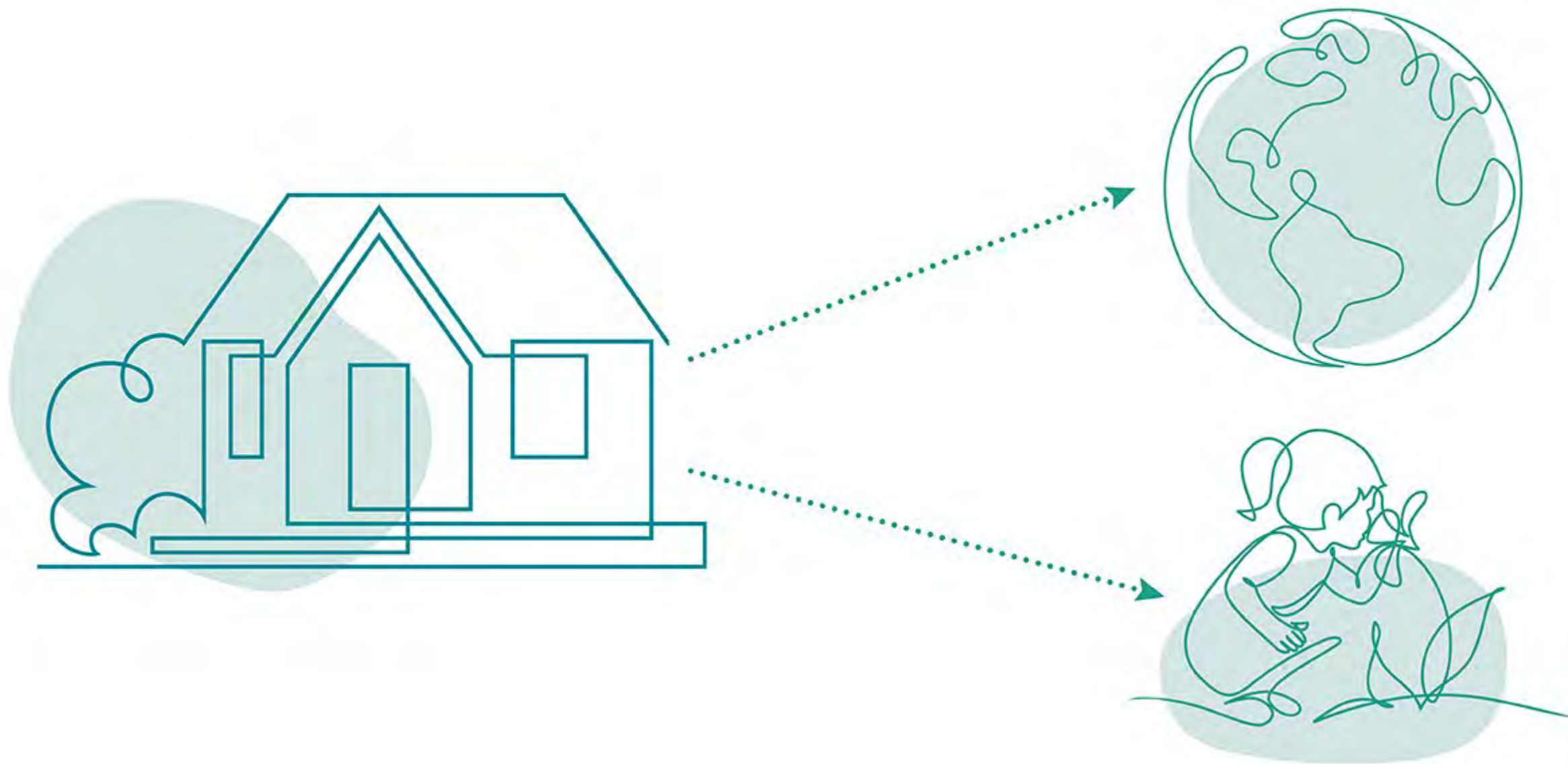
- [Retrofit for sustainability: A facility manager's guide for Net-Zero Buildings | Schneider Electric](#)
- [Emissions & Generation Resource Integrated Database \(eGRID\) | US EPA](#)
- [Real-time Operating Grid - U.S. Energy Information Administration \(EIA\)](#)
- [Benchmark Your Building Using ENERGY STAR® Portfolio Manager® | ENERGY STAR](#)
- [WBDG | WBDG - Whole Building Design Guide](#)
- [ASHRAE](#)
- [New Buildings Institute](#)
- [ISSA › The Worldwide Cleaning Industry Association](#)

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# Manufactured Home Retrofit Considerations

- Visit park to understand community needs and approach to maintenance
- Audit – check out the scene for safety and work to be done. Could identify homes where cleaning out under the home is needed
- Avoid doing work in the winter – risk of pipes freezing if belly is exposed during repair in extreme cold.

## Manufactured Home Contractor Engagement

- Turn around time to pay contractors
- Consistent opportunities/work
- Incentivize contractors to make it worth it – pay employees more to work on MH
- Targeted marketing campaign by utility/program rather than contractor

# Resources

- [Great Lakes Energy Manufactured Home Replacement Research](#)
- [Manufactured Home Contractor Research](#)
- [Increasing energy efficiency in manufactured homes](#)
- [Critical repairs for manufactured homes and single-family home rehabilitation](#)
- [Minnesota manufactured homes characterization and performance baseline study](#)
- [Slipstream's Bob Pfeiffer on Retrofitting Manufactured Homes](#)
- [Delivering Energy Savings to Residents of Manufactured Homes](#)
- [Manufactured Housing: Energy Modeling and Cost Effectiveness Report](#)
- [Reimagining HVAC for New Manufactured Housing: Feasibility Assessment Report](#)
- [DIY Energy Tips for Manufactured Homes](#)
- [Clean Energy Careers](#)

## Rachel Krogman



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# What does decarbonize for good mean to me?

Good for the planet, our communities,  
our homes, schools, buildings

Good for our health, our families, neighbors

Good for the economy/socio-economy

Good for everyone

# What's the biggest reality check for residential retrofits?

We don't have to go it alone

There is "no one size fits all"

Lots of barriers. And LOTS of solutions

The work is hard, but so worth it!

# Resources

- [Better Buildings](#): A DOE initiative, Better Buildings is designed to accelerate investment in and share best practices related to strengthening energy efficiency in homes, buildings and beyond.
- [ENERGY STAR Save at Home](#): A tool for saving energy with ENERGY STAR to see how your simple actions can make a big difference
- [SmarterHouse](#): An online guide by ACEEE to energy savings in the home. It includes measures homeowners can take to tighten the building envelope as well energy-saving advice on appliances, heating equipment, air-conditioning, lighting, and electronics.
- [Federal Energy Efficiency Tax Incentives](#): Rewiring America summary of Inflation Reduction Act (IRA) rebates.
- [Department of Energy Savings](#): Access different levels of savings available for upgrades



**Let's hear from  
building professionals.**





I want to hear about affordable housing.

What can we do about manufactured homes if we know that people don't want to work on them? How do we convince them otherwise? Or what about multifamily buildings or single-family homes that need repairs before we can do an energy retrofit?





So many facilities run their equipment past expected life or could get many more years out of their equipment.

Sometimes a good payback or NPV doesn't overcome the lack of capital available for the large retrofit projects.

What do we do about it?





We know that our buildings are old and inefficient.  
We also know that tearing them down and rebuilding isn't an option.

And what about the homes people live in, where do they go while we retrofit them? And who is going to pay for it?"



