Commercial Building Electrification Pathways

MARCH 21 | 2-3:30 PM ET | 11 AM-12:30 PM PT

EMPOWERED
SOLUTIONS

WEBINAR SERIES

CleanEnergyClearinghouse.org
Webinar Registrants
General comments, chat with attendees

All questions for presenters
Commercial Building Electrification Pathways

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EMPOWERED SOLUTIONS WEBINAR SERIES

CleanEnergyClearinghouse.org
IREC builds the foundation for rapid adoption of clean energy and energy efficiency to benefit people, the economy, and our planet.
3 Pathways to a Clean Energy Future

Transforming the Grid

Local Solutions

Building the Clean Energy Workforce

Regulatory

Community

Workforce
EMPOWERED

Education Materials for Professional Organizations Working on Efficiency and Renewable Energy Developments
A Wide Variety of Educational Resources

Videos
Quick explainer videos on topics such as "Inspecting the Building of the Future."

Infographics
Reference guides to model codes for EV charging, energy storage, solar PV and more!

Courses & Articles
Short courses and articles about existing and emerging technologies to keep you up to date.
CleanEnergyClearinghouse.org

Find recording and slides here

EMPOWERED Solutions Webinar Series

- See the full EMPOWERED Solutions webinar series here. (Overview)

Upcoming Webinars:

- (Jan. 17) EMPOWERED Solutions: High Performance Homes and Materials Safety (Register Here)
- (Feb. 21) EMPOWERED Solutions: Residential Building Electrification Pathways (Register Here)
- (Mar. 21) EMPOWERED Solutions: Commercial Building Electrification Pathways (Register Here)

Previous Webinars:

- EMPOWERED Solutions: The Possibilities of EV Charging (Webinar & Resources)
- EMPOWERED Solutions: Cold Climate Air Source Heat Pumps—Efficacy and Building Readiness (Webinar & Resources)

Solar

- Preparing to Inspect Your First PV System (Article)
- Solar PV Systems: Job Aids for a Consistent Plan Review Process (Downloadable Checklists)
- Efficient and Accurate Validation of PV and Energy Storage System Designs: An Introduction to SolarAPP+ (Article)
- A Checklist for Building Owners Considering Solar Energy (Downloadable Checklist)
CleanEnergyTraining.org

Find CEU-bearing courses here
Today’s Program

- Introduction
- Expanding the Scope: Moving from Zero Net Energy Goals to Carbon Neutrality
- Introduction to the Five Foundations of Zero Carbon Building Policies
- System-focused electrification applications for cold climates
- Learn about the NYS Clean Heat program equipment eligibility, savings/incentive calculator
- How all-electric installations for large commercial buildings compare to conventional approaches from a design, installation, cost, and energy use perspective
- Answers to FAQs submitted as part of registration
- More Q&A
- Summary & Next Steps
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Building Innovation, New
Buildings Institute

Adam McMillen
Director of Sustainability,
IMEG Corp

Scott Hackel
Vice President of
Research, Slipstream

Mark Ditch
Senior Energy Engineer,
National Grid Energy
Services
On to the Program
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WEBINAR SERIES

WHAT DID YOU THINK? TAKE A MOMENT TO COMPLETE THE EVALUATION

https://irec.typeform.com/to/ARkUWubp
Building decarbonization is becoming mainstream in code and standards across the U.S.
Low carbon and carbon neutral building operations start with reducing energy demand – Efficiency is still an important strategy!
Available today is a building technology roadmap that characterizes the technology readiness, product availability, ease of application of electrification technologies
Implement building envelope improvements when considering electrification strategies
Heat pump and dual fuel rooftop units (RTU), Variable Refrigerant Flow (VRF) and heat pump water heaters are leading electrification solutions in the Midwest
Heat pump incentive programs really work and can save customers money
Heat pump technologies are working in the cold climates of upstate New York
Training and certification is available for contractors who want to be part of the New York State Clean Heat program
The distribution and terminal systems in large all-electric commercial buildings can look and operate in a similar way as gas-based heating systems
Two key considerations for electrification of large commercial buildings is the potential increase in electrical service size and need for increased backup/emergency power with the winter months
Next Steps

1. Visit the CleanEnergyClearinghouse.org for:
   a. Webinar slides & recording
   b. 5-15 minute resources

2. Take a CEU-bearing solar and energy storage system plan review or inspection course: CleanEnergyTraining.org
Resources

- The Building Electrification Technology Roadmap
- An Insider's Guide to Talking about Carbon Neutral Buildings
- Existing Building Decarbonization Code
- The Present and Future of Decarbonizing through Electrification in Commercial Buildings in the Midwest
- The State of Commercial Electrification: HVAC
- Become a NYS Clean Heat Program Participating Contractor
- New York State Clean Heat Program Manual
- Decarbonization Of The Built Environment: Solutions From The International Code Council
- SUNY Energy Futures: Fundamentals of Building Controls Systems
Stay in touch!

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Today’s Goals

- Day of logistics
  - Arrival
  - Flow of event
  - Responding to questions in Q&A
- Identify top two or three takeaways of your presentation - Summary
- Agree on the best poll question(s) - lead in to your presentation
- Agree on one to two resources to share with registrants
- Look at registration questions and identify any that would be good to expand upon
- Test that we can all share our slides