



★ A DOE HUD Collaboration ★



Innovations in Energy Efficiency Webinar Series

November 29 – December 2, 2021

The Innovations in Energy Efficiency Webinar Series is an 8-part virtual conference. This webinar series is a collaboration between the Department of Energy and the Department of Housing and Urban Development with a focus on energy efficiency in housing. The content of the webinars will be basic, practical, and actionable with an emphasis on the rehabilitation of single- and multi-family housing. Webinar topics range from an introduction to energy efficiency fundamentals to advanced topics such as exterior retrofits and the latest energy code requirements. The webinars are open to everyone especially HUD grantees and HUD staff with oversight responsibilities are encouraged to attend.

REGISTRATION LINK:

<https://www.cognitofrms.com/SIDEM1/innovationsinenergyefficiencywebinarseries>

REGISTRATION DEADLINE: Thursday, November 25

MONDAY, NOVEMBER 29

Noon – 1:30pm EST

Energy 101: Intro to Energy Efficiency -
Building Retrofits with Positive Return on
Investment

2:00pm – 3:30pm EST

Simplifying Energy Audits for Single Family
and Multifamily Buildings

TUESDAY, NOVEMBER 30

Noon – 1:30pm EST

Weatherization Plus Health

2:00pm – 3:30pm EST

The Lowest of Low...Hanging Fruit: Water
Fixtures & Lighting

WEDNESDAY, DECEMBER 1

Noon – 1:30pm EST

Once Upon a Replacement: Water Heating and
HVAC

2:00pm – 3:30pm EST

Shoo Fly, Don't Bother Me: Minimally Invasive
(to occupants) Exterior Retrofits

THURSDAY, DECEMBER 2

Noon – 1:30pm EST

Building Decarbonization and On-site
Generation

2:00pm – 3:30pm EST

Energy Codes, Standards, and Certifications:
To the 2021 International Energy Conservation
Code (IECC) and Beyond

WEBINAR DESCRIPTIONS

MONDAY, NOVEMBER 29

Noon – 1:30pm

Energy 101: Intro to Energy Efficiency - Building Retrofits with Positive Return on Investment

This webinar will provide a general overview of energy efficiency starting with understanding the basic components of a building and basic building science fundamentals related to how they all interact together. Additionally, there will be a high-level overview of energy efficient upgrades which will generally provide the most bang for the buck (return on investment) for various climate zones and building types. A cost-effectiveness analysis will be presented for each recommended measure.

2:00pm – 3:30pm

Simplifying Energy Audits for Single Family and Multifamily Buildings

Energy audits come in many shapes and sizes. For small to medium housing authorities and building portfolio owners, the energy auditing process may be something done in-house due to lack of resources to hire this function out. This webinar will first provide an overview of different kinds of energy and water audits and then will go into a deep dive on common DIY energy auditing techniques for single family and multifamily buildings. Data collection tools and software applications will also be discussed. This webinar will conclude with information about how to identify the most cost-effective measures for your climate zone and building type.

TUESDAY, NOVEMBER 30

Noon – 1:30pm

Weatherization Plus Health

This webinar describes weatherization as a practice and the U.S. Department of Energy's Weatherization Assistance Program. Presenters will discuss the activities that are conducted when weatherizing a home, such as protecting a home's interior from the elements (sunlight, rain, and wind) and modifying a building to reduce energy consumption and optimize energy

efficiency. DOE's Weatherization Assistance Program is a comprehensive whole-building approach to energy efficiency retrofits, with the mission of reducing the energy burden of low-income households while also ensuring their health and safety. These items are interrelated because in many cases, providing air sealing plus ventilation improves the air quality and health of the occupants inside the building. Weatherization Plus Health is a voluntary effort designed to take a comprehensive approach to coordinate resources for energy, health, and safety in low-income homes.

2:00pm – 3:30pm

The Lowest of Low...Hanging Fruit: Water Fixtures & Lighting

Replacing water fixtures and upgrading lighting can provide instant energy savings and are often the 'bill payer' for more expensive energy conservation measures with long payback periods. This webinar will provide examples and guidance on the most cost-effective water fixtures and lighting solutions, when to replace these systems, what to replace them with and what else to consider at the same time.

WEDNESDAY, DECEMBER 1

Noon – 1:30pm

Once Upon a Replacement: Water Heating and HVAC

Let's face it, water heaters and heating and cooling equipment break. And then what? Usually, they get replaced with the same type of equipment, or maybe a slightly more efficient version of the same equipment (e.g., replacing an old boiler with a new one). This webinar will discuss how long a water heater, space conditioning equipment, or boiler is expected to last, the options available in the market for a replacement, and the pros and cons associated with each option. For each topic, replacement and maintenance costs, occupant comfort, and overall energy use will be discussed. Real-world examples from HUD stakeholders will be provided.

WEBINAR DESCRIPTIONS

2:00pm – 3:30pm

Shoo Fly, Don't Bother Me: Minimally Invasive (to occupants) Exterior Retrofits

Exterior retrofits on walls, roofs, windows and foundations can be expensive and may occur at a time when a building has failures or is in desperate need of maintenance. For a relatively incremental cost, energy efficiency can be included as part of the exterior remodel. Incorporating energy efficiency into exterior retrofits can be achieved with minor design changes and put money back in your pocket while making occupants more comfortable. Guidance on product selection, costs, and maintenance will be provided for re-siding, window retrofits, and roof repairs. Examples of HUD-sponsored projects will be discussed.

33% more efficient than a home built to the 2006 IECC. Understanding the measures and prescriptive approaches driving this level of efficiency is critical to design, construct, and improve buildings. In addition to covering the most recent energy code, this webinar will discuss relevant high-performance standards and building certifications, such as DOE's Zero Energy Ready Homes and EPA's Indoor airPLUS programs. Expert speakers will provide helpful tips and tricks to understanding and navigating these newest codes and standards.

THURSDAY, DECEMBER 2

Noon – 1:30pm

Building Decarbonization and On-site Generation

Through technological advancements, incentives, and newly adopted administrative goals implementing policies for decarbonizing the buildings sector is becoming easier and more important. Decarbonizing buildings offers a host of benefits including improved indoor air quality, reduced occupant risks, fewer emissions, and reduced costs. Still, many important considerations exist when making this transition. In this webinar, technical experts will highlight various decarbonization technologies, such as heat pumps, grid integrated technologies, solar generation, and energy storage. The benefits and trade-offs of each approach will be discussed and explored for various building types.

2:00pm – 3:30pm

Energy Codes, Standards, and Certifications: To the 2021 International Energy Conservation Code (IECC) and Beyond

The 2021 International Energy Conservation Code (IECC) represents the national model for energy-efficient residential construction. According to US DOE, this code is 9.3% more energy efficient than its predecessor and over