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Title: Fires, Floods, and Superstorms, Oh My! - How Efficiency and Resiliency are Bridging the Gap to Climate Solutions

Abstract: In residential energy efficiency, a lot of focus is on building better homes to reduce energy consumption which leads to greater homeowner comfort and lower utility bills. Better walls, more air sealing, better windows, more efficient appliances and HVAC systems, etc. Contractors and builders are trained to use building science and energy assessments identify measures that reduce kWh and Therms, which is a primary driver of utility programs, incentives, and cost-effectiveness tests. We know this. We've been doing it for years. But did you know that these same building science techniques and energy efficiency program designs can be used to address resiliency to extreme weather events exacerbated by climate change? Procedures and reporting from energy assessments can be translated to wildfire mitigation assistance programs. "Trade ally network" training and recruitment methods can be used with professionals that are not traditional HVAC, insulation, and weatherization program partners. Building codes, like the International Energy Conservation Code and National Green Building Standard, include resiliency measures and language, but it's time for more states and local jurisdictions to proactively adopt and enforce those codes. Residential program training material must include more language on how advanced building science can save energy while at the same time resist or reduce home damage from storms (e.g., Thermal break shear walls, ICF walls, Passive House fire resistant design, more straps on roofs/windows/foundations, elevate homes, ignition and water resistant roofing, air sealing to reduce ice dams, use materials that are easier to clean and keep damage to a minimum, cooling strategies for extreme heat, etc.) Many utilities are also considering more non-energy benefits (NEBs) or non-energy impacts (NEIs), such as durability and improved safety, in updated program cost-effectiveness tests. At CLEAResult, we are working with utilities and governments to evolve residential energy efficiency programs to scale up awareness and inclusion of resiliency measures to further mitigate the effects and consequences of climate change.