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Poster Title: Rethinking Upgrade Decisions: Co-delivering Resident Benefits and Environmental Benefits in Affordable Housing

Abstract: The IPCC's recent Global Warming of 1.5°C report emphasizes the need to scale up our response to climate change through a mix of pathways. Most of the solutions needed already exist but are not being implemented quickly enough. One of those pathways is to deploy end-use energy efficiency and renewable energy measures in buildings. The thirteen non-profit multifamily affordable housing (MFAH) providers who are members of Stewards of Affordable Housing for the Future (SAHF) understand their role in reducing the impacts of climate change for the low- and moderate-income (LMI) households we serve, including a collective 20% reduction goal by 2020. As long-term owners of affordable housing nationally, they have been pushing the envelope when embracing and promoting the latest innovations in energy efficiency, water conservation, and renewable energy. This poster will explore how the MFAH sector is changing the script on how decisions are made around energy efficiency, water conservation, and renewable energy and pursuing building upgrades that provide greater benefits to LMI households nationally and reduce the environmental impact of their buildings. We will explore a framework and tool developed by SAHF for MFAH owners to show the direct and indirect benefits associated with seven different categories of building upgrades: building shell, HVAC, hot water, water, lighting, appliances, and renewables. The benefits of these building upgrades also fall under five overarching categories of resident benefits: financial, health and safety, comfort, education and learning, and social and resiliency benefits. The poster will showcase the use of the resident benefits framework in two different retrofit scenarios. The first scenario is a light retrofit, most commonly funded by utility incentives, and typically covering low-hanging fruit measures. The second scope of work will showcase a member property that went beyond standard building code to provide healthier, efficient homes that reduce the energy burden for LMI residents and the overall carbon emissions of the building by using a robust green building certification program (e.g., Passive House, Net-Zero Ready). Within member organizations, making these solutions happen requires creativity and internal collaboration to deliver efficiency projects that have greater resident benefits. We will address how members have used this resident benefits framework to make the case for deeper efficiency upgrades internally and resident engagement strategies employed by members to give residents more agency in the upgrade process to produce a greater stock of healthy, sustainable, affordable housing for LMI households.