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**Abstract Title: Market Adoption of a Simple-to-Understand HVAC Quality Management System**

Abstract Text:

As Allcott and Mullainathan (2010) suggest, research in human behavior and energy-use decisions is not new, but missing links remain between researchers, policy-makers, and businesses to do the work of translating behavioral science insights into practice. In particular, HVAC-efficiency demand-side management programs are largely founded on single prescriptive technologies and approaches with few behavioral elements. Market barriers are a) building owners not understanding HVAC system optimization benefits through inventory, maintenance, and planned replacement, and b) HVAC service firms unknowledgeable on optimization. This presentation shares details of a comprehensive HVAC quality management (QM) program that overcomes barriers such as information and motivation deficits. A streamlined approach provides potential participants an accurate understanding of potential benefits and facilitates behavior change and adoption of high efficiency business models. The program brings together individual elements under one umbrella to influence participation through the various stages of the decision-making process: pre-contemplation, action, and cognitive satisfaction upon viewing completed results. This overarching approach is called "Sustainable Quality 3" - Quality Inventory, Maintenance, and Replacement. It includes case studies, informational material, business guides, personal mentoring, on-line tools, QM industry standards, and advanced diagnostic testing. Behavior adoption is achieved through all levels of a service firm—technicians, service supervisors, and owners. Under this program, the estimated energy savings per optimized/replaced rooftop air-conditioning unit is a 25% reduction in kWh. Estimated savings achieved so far in New York are 7.1 GWH from more than 7,000 QM events. Indoor air quality and non-energy cost savings are also achieved.