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Abstract Title: Behavior-based Savings Opportunities at Work: Estimating City-wide, Behavior-based Energy Savings Opportunities in Commercial Buildings
Abstract Text:
Past research has documented the large scale, energy and carbon reductions that could be achieved in the residential sector by shifting everyday household behaviors, technology use patterns, and technology choices. On a national scale, estimates of achievable savings (in the short to medium-term) from these types of behavioral approaches have ranged from 20 to 30 percent of current residential energy consumption. Subsequent estimation work at the city level has created a similar set of estimates for more than 5 U.S. cities. However, until now, such efforts have overlooked the potential behavior-based energy savings that could be achieved in commercial buildings. This presentation will share findings from a new approach aimed at providing U.S. cities with estimates of city-level, behavior-based energy savings. The model looks across 91 potential commercial sector actions (by building occupants and building operators) to estimate achievable energy savings for 9 types of commercial buildings and a wide range of end uses. Building types range from office and retail to hotels, schools and hospitals. This presentation will 1) outline the core components of the commercial sector behavior wedge profile methodology, 2) compare and contrast the savings estimates for five U.S. cities, and 3) discuss how cities (and others) are using this information to develop new and innovative programs.