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Abstract Title: 1. Building User Audit Capturing Behavior, Energy, and Culture
Abstract Text:
The University of Washington (UW) initiated a program to provide funding support for projects on the Seattle campus for the purpose of helping the University meet its greenhouse gas (GHG) emissions reduction targets. This research team recognized that while UW had previously implemented several programs and initiatives to raise awareness of energy use on campus and reduce campus energy consumption, the campus needed a framework to accurately account for the effects of user influenced energy uses in campus buildings. The absence of such a framework would limit the ability of UW to meet its GHG reduction goals. This project developed a framework and tool for understanding how people impact energy use patterns in campus buildings called- The Building User Audit Procedure, or BUAP. The BUAP enables the UW to: • Understand how people are using energy (actual and perceived) •Establish a baseline for behaviors that effect energy use • Create a benchmark for the design of new buildings • Guide future intervention programs aimed at fostering pro-environmental behavior The BUAP modified the ASHRAE "Procedures for Commercial Building Energy Audits" to create a three-tiered analysis tool including (direct observations, automated monitoring and a survey questionnaire) to capture the interplay between individuals and their built environments. This is important when assessing a wide range of building user variables that motivate pro-environmental behavior including: values, beliefs and attitudes, awareness of issues and consequences, personal and social norms, perceived control over outcomes, and behavioral intentions leading to energy conservation actions.