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Title: Prepay electricity programs: potential energy savings but at what cost to the consumer?

Abstract: Although prepaid electricity is common in some regions of the world, it is relatively new to the United States. With more utilities piloting and running prepay payment options, there is increased interest in determining how paying for your energy before using it can impact energy consumption. Could an energy efficiency program capture energy savings simply by changing to a prepaid model? Some utilities that have prepay payments options have boasted significant electrical annual energy savings, which piques the interest of many seeking effective programs to reduce energy and carbon emissions. However, many questions remain unanswered regarding the mechanisms by which customers reduce their consumption while on prepay plans. Consumer advocate groups have been quick to point out the potential negative effects prepay program elements may have on marginalized populations, such as potential deprivation and additional costs that disproportionately affect those that can afford it least. The goal of this research was to determine if prepay should be considered an energy efficiency program and provide design and implementation recommendations for prepay pilot programs. We based our research on a comprehensive literature review of 16 available prepay program evaluations to systematically review the quality of the evaluations and causes of energy savings. We also conducted 28 stakeholder interviewers with utilities, regulators, consumer advocates and prepay program implementers to understand relevant contentious issues and opportunities. In this presentation, we will summarize the results, highlighting the aspects of prepay programs that may be rooted in behavioral change theory and the uncertainty around whether prepay should be considered energy efficiency. Given the potential for significant energy and carbon reductions, we will also explore how program implementers and regulators need to address any systemic inequities in program design and to conduct the research to make an evidence-based decision about whether prepay program should be considered energy efficiency.