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Abstract Text:

Public utilities have offered voluntary prepay electric service for decades. Analysis of pre- and post-enrollment usage data shows a linkage between energy prepayment and conservation (verified usage reductions of 5%-15%). In a modern or "smart grid" prepay program, consumers have constant access to their usage and account balance through an in-home device or via daily texts, emails or push notifications. This frequent flow of information makes consumers more aware of the household behaviors that affect utility costs. While the statistical link has been demonstrated, the specific behavioral changes are not well understood or documented. DEFG's Prepay Energy Working Group, created in 2010, has been studying these issues. The first step has been to separate the weather-related savings from other savings. Now we are examining the role of selfdisconnection (tactical timing of the payment) to understand whether consumers are making significant lifestyle changes. We are also coupling statistical analysis of usage data with consumer surveys to understand whether the savings are due to changes in household routines (turning off the lights) or changes in energy-efficiency investment behavior (purchasing a new light). We are examining personal responsibility and utility service. To what extent have consumers shifted their thinking (and behavior) from viewing the utility bill as something "done to them," versus viewing their prepay account as "something over which they have control"? Do consumers who are more engaged do more research on their own? The presentation will help the audience understand electricity prepayment as a new smart grid offering.