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**Presentation Title:** The Power of Customer Intelligence to Redefine Utility Energy Efficiency Program Design

**Abstract:** Over the last decade, Home Energy Reports (HER) have become a staple of utility energy efficiency programs. These paper reports sent to the highest energy users show customers how much energy they use month-to-month in comparison to similar homes to drive behavioral changes in energy usage. However, research on successful, mature behavioral programs has increasingly pointed to the fact that only 20% of the treatment group will actually save energy, which means money is being wasted on supporting, mailing and communicating to customers that are going in the opposite direction of the treatment. This presentation will reveal why a deeper understanding of utility customers' usage and behavior is essential to implementing the right behavioral energy efficiency strategy. Attendees to this presentation will learn about how new technologies that leverage big data and artificial intelligence applied to energy efficiency programs enable utilities to understand why customers behave the way they do and can drive improved customer outcomes by targeting customers with high savings potential. How these technologies also can be used to engage customers with targeted messaging via digital and paper energy reporting will also be covered to demonstrate how energy savings are achieved in a way that suits each individual customer's unique usage patterns and preferences. New research will be presented that proves unique appliance-level energy usage characteristics is a better predictor of savings over the traditional approach of targeting only the highest consumption users. Specific findings presented will include how: Lower base-load consumption users yield higher savings than just high users. Digital program energy savings is on par with paper programs at lower cost, and combined paper and digital generates the greatest savings. Targeting a wider range of customers increases customer satisfaction while saving energy, in fact, two times as much energy during peak months.