

Title: Self-Reported Virtual or Third-Party Onsite Impact Verification: A Case Study Test of Feasibility, Logistics, and Accuracy of Findings

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Abstract: Customer onsite impact verification is one of the costliest energy efficiency program evaluation activities. To mitigate against health and safety concerns, impacts related to the COVID-19 pandemic may have increased the momentum of virtual verification (VV) practices. As utilities grow their energy efficiency portfolios, they must identify opportunities to streamline the customer experience, reduce costs, and optimize resources to focus on higher value research—all while maintaining confidence in the accuracy of energy savings. As such, DTE Energy and Guidehouse tested the feasibility and accuracy of using customer self-reported VV in tandem with traditional onsite third-party impact verification. This paper discusses the methods used and considerations needed for an effective customer self-reported VV, using an online, survey-based approach with the inclusion of self-reported pictures of installed equipment. This research covers a residential direct install home assessment program where we compared the differences in results between VV and onsite verification and worked to address program challenges. The study targeted 90% confidence and 10% precision at the residential direct install program-level separately for surveys and onsite visits (or 80 completes for each method employed). This research should help utilities and evaluators understand if virtual self-reported surveys versus third-party onsite visits for impact evaluation are consistently reliable, how best to engage customers in the VV process, and any key challenges that may persist and how best to overcome them.