ENERGYSAVVY

Case Study:

"A Glimpse Into the Future" – EnergySavvy's Program Optimization Software Enhances Contractor Management and Inspections

Introduction

Arizona Public Service (APS) has high standards for the energy savings and customer experience of their energy efficiency programs. This is especially true for the high-profile Home Performance with ENERGY STAR® and Duct Test and Repair (DTR) programs, which are aimed at improving energy efficiency for single-family residential customers through whole-house measures and duct sealing measures.

APS manages a pre-qualified network of over 60 independent contractors to deliver the Home Performance with ENERGY STAR® and DTR programs, and every interaction between the contractors and the customers represents a critical touch point for the utility. High quality work results in satisfied customers and can drive program participation through referrals. Conversely, one bad project reflects directly on the program and can taint customer perceptions, reduce participation and, at worst, lead to negative word-of-mouth among friends and neighbors. When contractors put emphasis on the quality of jobs versus the quantity of jobs performed, and are selective in the measures they recommend to customers, the overall program benefits.

To maintain oversight of the participating contractors and perform quality assurance/quality control (QA/QC), APS has traditionally been limited to a handful of high-cost approaches. The method they rely on most is to perform randomly assigned physical inspections. Random inspections involve extensive travel, and mainly consist of crawling through customer attics to visually inspect the work. This QA/QC approach not only squanders a potential touch-point with customers as the inspector is in the attic for the duration of the visit, but also requires a significant amount of time and money. Further, it risks missing problems in uninspected homes. APS believed there should be a way to leverage data to better target these inspections, reduce unnecessary visits, and gain better insights on contractor performance.

To tackle this challenge, APS implemented EnergySavvy's Program Optimization software, which allows APS to monitor program and contractor performance continuously and take action. This software includes performance data from 2014 through the present day, incorporating updates to customer usage data, project data and weather data on a monthly basis. APS has integrated this monitoring system into their day-to-day operational strategy to manage contractor performance in two key ways. In an effort to drive accountability

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Chris Baker, APS

and deliver valuable feedback to the contractor network, APS began issuing a quarterly scorecard to the Home Performance with ENERGY STAR® contractors in early 2016, ranking them based on their measured savings performance. In addition, APS uses EnergySavvy's software to target where the implementation team will conduct inspections. By leveraging granular feedback about what's working and what's not, APS is driving the overall number of inspections down, freeing up time and budget to improve the program and also providing tangible feedback to the contractors that they use to improve their work and business strategies.

Managing Contractor Performance

APS understands that contractors want feedback on their performance, and APS would like to provide this to them. In addition, comprehensive feedback helps contractors better serve their customers, which can lead to greater customer satisfaction and more referrals - a win-win for the program and the contractor network. However, it is challenging for APS to meet this need when they put only a small subset of any contractor's projects through random inspections.

EnergySavvy's Program Optimization software addresses this challenge by monitoring all the projects in the program. The software continuously assesses the energy savings achieved at the meter and compares this to the deemed energy savings tracked by the program – the result is a ratio called the "Achievement Rate" (AR). This comprehensive record of data allows APS to actively monitor and manage contractor performance, and provides an unprecedented ability to feed that information directly back to the contractors.

Addressing the Accountability Gap with Scorecards

Each quarter, Chris Baker, program manager for the Home Performance with ENERGY STAR® program, delivers a scorecard to each contractor, combining the metered performance data with data from field inspections, as shown in Figure 1. As Baker states, "Contractors are competitive, and the scorecards really get them fired up in a positive way. And by showing them both their ranking relative to other contractors and whether their performance is trending up or down over time, I'm able to drive valuable conversations around project selection, project quality and accountability for the customer experience." Going forward, APS and EnergySavvy will be tracking the overall achievement rate for the program and for the contractors, to determine if the scorecard feedback leads to improvements in this metric.

Baker points to a few specific examples of how this works in practice:

- APS' service territory has one of the highest concentrations of energy efficient Home Performance with ENERGY STAR® homes in the country, and most contractors will weed out these homes before going onsite, or check electric panels for certification stickers. However, some contractors will recommend efficiency measures in those homes even though the benefits to the customer are few. These vendors might install attic insulation or provide additional duct sealing where it's not needed. But APS can't get in the home before the work is done to be certain. As Baker states, "Clearly the energy savings won't be realized for these projects, and EnergySavvy's software enables us to spot this poor performance. We've used this data to inform contractors that they're hurting the program, and this degree of accountability encourages our contractors to be more selective in the measures they choose to install."

- Some of the contractors in the program take on homes that have larger issues than just high energy usage, such as poor air quality, non-functioning equipment, or health and safety concerns. For these homes, contractors

might install other equipment that can cause increases in energy use after the project, such as energy recovery ventilators (ERV) to improve indoor air quality. "For the contractors where we know they are doing these important upgrades to homes, we're less concerned whether they rank 3rd or 10th based on achievement rates. Rather, we focus on how they trend over time. So if we see downward movement over the year, we can use this data to drive a productive discussion about the types of projects they are working on, whether anything has changed with their project types, installation practices or field crews, and identify what kind of follow-up action is needed, if any."

Decreasing Inspections with Remote Intelligence

In 2015, APS inspected 40% of all projects in the Home Performance with ENERGY STAR® program, over a service territory spanning most of the Phoenix metro area, 11 counties, and over 34,000 square miles. Each inspection involves coordinating with the homeowner, driving to the home, crawling through very hot attics to inspect insulation, ducts, air sealing and HVAC equipment, and on average takes 2.5 hours to complete. With the addition of EnergySavvy's Program Optimization software, the program team now has a holistic view of the types of projects that are or are not performing as expected, allowing APS, as Baker says, "a glimpse into the future." For example, APS is most interested in targeting inspections based on contractor performance, and so uses the software to identify contractors who have sufficient quantities of projects and whose achievement rates are below certain thresholds.[1]

Using EnergySavvy's software, APS can reduce the physical inspections of attics. APS views the time and cost savings as a way to shift approximately 25% of the overall inspection budget to directly improve the program. "This year, we are working to cut our physical inspections, but we're still visiting as many customers," reports Baker. "Instead of crawling through their attics, we're at the kitchen table with the customer conducting a survey about the program and the contractor they worked with - obtaining invaluable feedback that we can take to better market and deliver our services." As an example of turning this feedback into action, the surveys identified that only 4% of customers came through Home Performance with ENERGY STAR® via referral, yet 88% reported they would absolutely recommend their contractor to friends and family. In early spring of 2017, APS will pilot a "friends and family" referral program within Home Performance with ENERGY STAR®.

Baker has indicated that APS plans to closely monitor the QA process, and continue to shift budgets from unnecessary attic inspection to focused trainings for the contractors, raising the bar for performance even higher.

Conclusion

For APS, meeting stringent savings targets and ensuring positive customer experiences means leveraging all available intelligence and data to effectively allocate resources, increase accountability for contractors, and deliver a better program. They now rely on EnergySavvy's platform to take their existing data – customer usage and project tracking data – and generate visibility into what happens at their customers' meters after the contractors walk away. This feedback loop drives accountability for the contractors, enables proactive decision-making for the management team, and allows for valuable resources to be dedicated to providing more rebates to more customers and enhancing the customer experience.

1 Other utilities running EnergySavvy's platform target QA/QC inspections based on a combination of one or more attributes, including, but not limited to, contractors, locations, housing type, or measures installed.