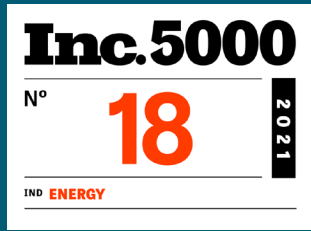


Automated Design Assistance Case Study



The Automated Design Assistance (ADA) tool is a premium add-on to Ekotrope RATER, the market-leading cloud-based energy rating software. ADA is a one of a kind innovation that provides access to **75% of energy-efficient US new home construction** and allows utility program implementers to influence builders as they are making design choices, showing them available rebate opportunities at the most critical point of the process. This novel tool leverages Ekotrope's unique relationship with HERS raters by engaging with them in the software they use on a **daily basis**, allowing utility programs to access raters and builders in a way that was previously impossible.



1. Ekotrope Partners with Utility Program

Ekotrope and the utility go over program goals and determine the scope of specific upgrade measures to support.



2. Rater Uses Ekotrope as Part of Day-to-Day Process

Ekotrope has the unique ability to meet raters within the most widely used rating tool in the U.S.



3. ADA Automatically Shows Rater Energy Conservation Recommendations

With access to raters during the most critical point of the home energy modeling process, ADA allows utilities to influence builders' design decisions.



4. Builder builds more energy efficient homes

ADA helps the utility drive deeper savings, reach more builders, and improve home energy performance.

Mass Save x Ekotrope

The Sponsors of Mass Save are transforming the way MA residents use energy - providing financial support and technical services to help builders and homeowners save money and energy. They offer financial incentives for residential new construction that exceeds standard MA building codes, leading to more high-performance, energy-efficient homes.

Challenges

Even with utility-sponsored incentives, it is always challenging to influence builders to go beyond code requirements, much less push them towards even deeper savings. In most cases, utility program implementers struggle to impact builders' decisions and push them toward design choices that are beneficial for the program, the utility, and the grid.

The key reasons for these issues are

- Many raters and builders do not have the tools available to easily analyze energy improvements to identify the best design options.
- The process of analyzing the impact of various design options is time-consuming and tedious, so raters often avoid it and builders often don't know or care to ask for it.
- Many builders are not aware of all of the available rebates and incentives, so they often miss out on financial savings that could otherwise be easily claimed.

Solutions & Results

Mass Save partnered with Ekotrope to implement a 3 month Automated Design Assistance demonstration with their Residential New Construction Program.

During the energy modeling of a home, the ADA tool provides raters with **energy conservation recommendations** that are tailored to the specific home design and the local utility program's goals. **Rebate opportunities** are then automatically calculated and shown to the rater via unobtrusive opportunity notifications. **Customizable reports** are also made available for raters to easily pass this information on to the builder, who is usually the ultimate decision maker. By facilitating a connection between utility programs and HERS raters, the ADA tool increases builder program participation and reduces overall energy consumption.

During this 3 month demonstration:

The implementation of Ekotrope's ADA tool in their New Construction Program allowed the Sponsors of Mass Save to reach raters and builders in a way that was previously impossible. With this access, they saw a considerable increase in the energy efficiency of homes that qualified for their program.

As raters now had access at their fingertips to high impact upgrade recommendations for every home, the Sponsors of Mass Save saw a positive trend in their new construction program data, with an **increase in average electric kWh savings per square foot of 37% and an increase in average fuel savings per square foot of 4.8%.**

Additionally, rater participants felt more strongly about the value of software innovation in the Mass Save New Homes offering as they were now able to reach program requirements more efficiently and more easily than ever before.

“After a 3-month demonstration, we achieved the results we wanted and moved forward with implementing ADA across two different programs. It has enhanced our ability to influence building decisions and connect with raters to meet and exceed our program goals.”

ICF RESIDENTIAL NEW CONSTRUCTION TEAM



Ongoing Impact

Following the successful demonstration, the Sponsors of Mass Save expanded Automated Design Assistance into two of their programs, having decided to continue the use of the tool indefinitely. Further, other utilities across the country have launched pilot programs based on similar goals and challenges to the Sponsors of Mass Save.