

## **Research the Energy-Saving Estimation Algorithms Used in the ZIP-CODE Program**

The ZIP-CODE program is an interactive, web-based, computer program that was developed in 1998 for the Department of Energy (DOE) in order to help people determine the optimal amount of insulation for their homes. In order to update the code involved in this program, research into the algorithms within the program was required. The research was conducted in order to incorporate change in the algorithms within the ZIP-CODE program. This research required an understanding of the energy-saving models, equations, and algorithms within the program as well as laboratory work, and comparisons of methods of calculation. This effort included a broad web search as well as literature search for pertinent documents. Other information sources included technical handbooks and research summaries from similar programs at other national laboratories. Aside from understanding the mathematical aspects within the program, an understanding of how the actual program runs was required.

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