

**Windows: Energy Efficiency
Facts and Myths**

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Purpose and Methodology

My decision to do this project was prompted by my belief in the importance of retaining historic windows and my second-hand knowledge that replacing them in the name of energy efficiency was not sound, especially in warmer climates. The problem was that while I could say that statement I didn't really understand how to back it up. As I started, I realized just how little I knew about energy efficiency, heat flow, etc. Over the course of the semester, I've conducted a great deal of research about energy efficiency, window rehabilitation, window replacement, etc. I've spoken with various energy-related professionals and worked with various computer programs designed to measure the efficiency of various windows. In general, the only time I ran across the advice to replace windows was in literature from the industry. Most articles and books on energy efficiency in general did not recommend wholesale replacement of windows as a cost effective option. It's intriguing that the replacement window has seemingly had such huge success in shifting public opinion. I spoke recently to a recently hired Energy Advisor at my local electricity provider. I asked him about energy audits. He informed me that he didn't do audits per se, but he would visit with people at their homes about how to conserve energy. "If I went to a house with single-pane historic windows, the first thing I'd say is to think about replacing them." I questioned if that would really be the first bit of advice and he answered affirmatively. I challenged him with the fact that replacing the windows would be costly and, in this climate, might only save a homeowner \$30/yr. "Yes, but triple pane windows are most efficient." How else do you explain this gut reaction by an energy professional than to attribute it to the successful marketing by the window industry?

As I see it, the purpose of this project is to inform both historic homeowners and small contractors about wood windows: not only their architectural significance but also their ability to be retained and rehabilitated. It is to educate them about how and why it is more cost effective to repair windows than to replace them. With this purpose in mind, the document is not written in a technical way, but rather in layman's terms for use by the general public. All the technical information about windows and energy efficiency one could ever want is out there somewhere. What is lacking, both for preservationists as a way to "make their case" and for homeowners concerned with the bottom line, is information in plain English. That's what I hope to provide.