



The Sustainability Institute



Energy Efficiency Retrofit Project Targets Historic Homes

As part of The Sustainability Institute, The CharlestonWISE Impact Project conducted 152 home energy assessments and 17 home energy retrofits for families in Charleston during 2011 and 2012. The information gathered and lessons learned during this project provide Charleston with the knowledge needed to improve energy efficiency where we live and further develop the market for the energy efficiency economy.

55% PROJECTED ENERGY SAVINGS

The home pictured to the right and below received a comprehensive energy assessment by a qualified energy advocate. This assessment modeled energy improvements and recommended a scope of work specific to the house. Subsequently, the home received an energy retrofit with projections of 55% improvement in energy savings. We will revisit this home a year later to reanalyze the data and projections.



133 Years Young

Improving an existing home is more sustainable than building a new one. Improving a home that is historic helps to ensure that these treasures stay around for many more years to come. The Southeastern climate presents some unique challenges due to its warmth and humidity. If not done

properly, irreversible damage can be done to historic homes when a retrofit takes place. That's why we worked hard to deliver a curriculum for contractors, energy auditors and historic preservation professionals that focused on improving energy efficiency while maintaining historic integrity.



PERFORMANCE TESTING This home received various tests before, during and after the work was done. Pictured above, you can see a blower door machine set up to test the air leakage in the building envelope.



HIGH EFFICIENCY HVAC By replacing an aging improperly sized heating & air conditioning system in this home with mini splits and ductless units, we able to utilize new technology and minimize impact to the home.



SPRAY FOAM & AIR SEALING By encapsulating the attic area with open cell spray foam in a removable manner, we improved the building envelope while preserving the historical integrity of the structure.