

Tracking Market Shares of High Efficiency Measures in California's Residential Sector

Dr. Frederick Sebold, Regional Economic Research, Inc., San Diego, CA

Alan Fields, Regional Economic Research, Inc., San Diego, CA

Susan Bortstein, Regional Economic Research, Inc., San Diego, CA

Phong Vu, Regional Economic Research, Inc., San Diego, CA

Rachel Weber, Regional Economic Research, Inc., San Diego, CA

Richard Pulliam, Southern California Edison, Rosemead, CA

Rick Ridge, Ridge & Associates, Alameda, CA

ABSTRACT

California's ratepayer-funded energy efficiency programs are dedicated to transforming markets to a higher, sustainable level of energy efficiency. The evaluation of market transformation initiatives requires knowledge of baseline market conditions and changes relative to that baseline over time. While most market behaviors (and behavioral changes) cannot be quantitatively observed, the market share trend of high efficiency measures over time is one truly measurable indicator. Reliable data will be required to 1) develop baseline efficiency market shares, 2) estimate efficiency market shares over time, and 3) ascertain the extent to which changes in market shares are sustainable beyond the life of market intervention.

This paper discusses the development and results to date of efficiency market share tracking efforts in California's residential sector, as well as lessons learned from this effort. The project entailed the development of five extensive data collection initiatives: on-site inspections of residential new construction, installation form collection from building departments and HVAC and plumbing contractors, sales data collection from space conditioning and water heating equipment distributors and appliance retailers, and lighting data through point-of-sales data obtained from commercial firms. These methods were designed to gather the data necessary to derive efficiency parameters of key existing and emerging measures, covering HVAC equipment, windows, duct sealing practices, lighting equipment, and appliances. Among other things, the crucial part of this effort is close coordination with the planning and evaluation efforts of individual energy efficiency programs administered in California, as well as research efforts in other regions. The result of this ongoing effort is a comprehensive efficiency market share database updated regularly (quarterly).