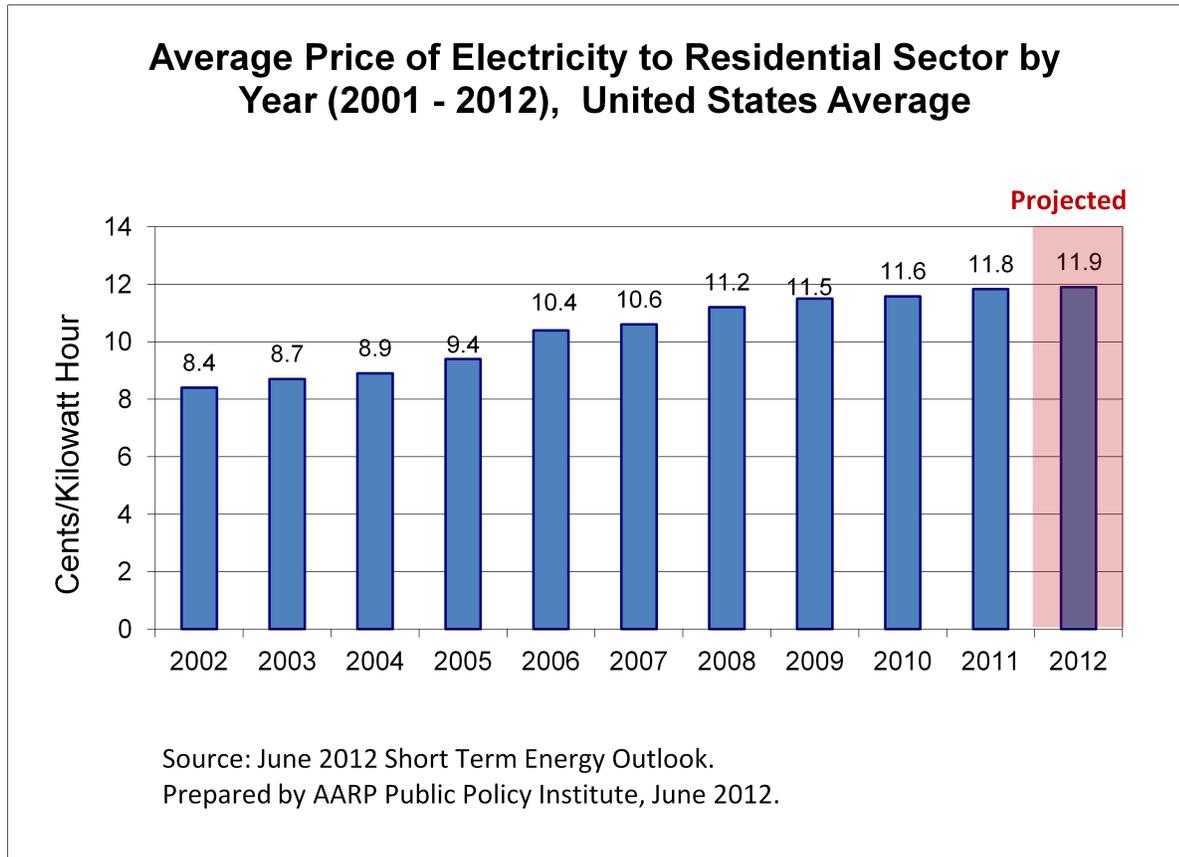


## Summer Cooling Costs and Older Households – June 2012

Prepared by Ann Jackson and Neal Walters, AARP Public Policy Institute

The continued high cost of electricity will result in many older consumers receiving high electric bills during the summer cooling season.



Electricity prices have increased every year since 2002. Average residential electricity costs have increased by more than 42 percent between 2002 and 2012, rising from 8.4 cents to 11.9 cents per kilowatt hour.

Based on projected expenditures during summer 2012, average cooling costs for older consumers will be \$226, up from \$186 in 2005, although slightly less than costs in 2011.

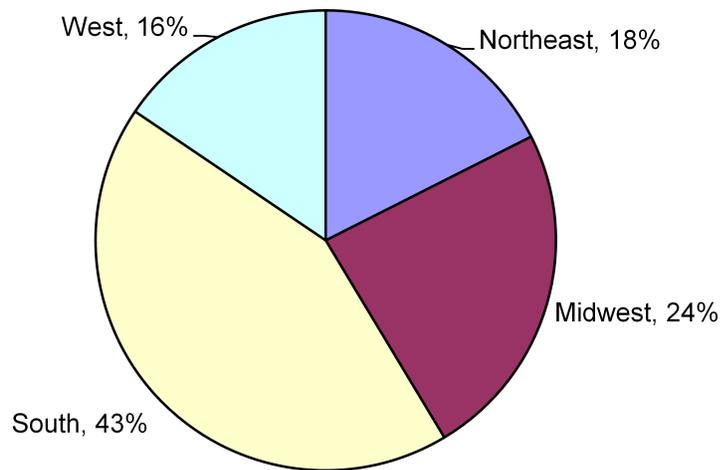
Projected expenditures are based on the average residential price of electricity and projected consumption data from the Energy Information Administration (EIA). The consumption projections<sup>1</sup> are based on a variety of factors, including historical usage data and anticipated weather conditions. Deviations from forecasted weather conditions will affect the accuracy of projections.<sup>2</sup>

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<sup>1</sup> EIA's residential consumption and expenditure predictions are derived from the National Energy Modeling System Residential Sector Demand Module, available at <http://www.eia.gov/FTP/ROOT/modeldoc/m067%282010%29.pdf>.

<sup>2</sup> Degree days, including cooling degree days, are a simplified form of historical weather data used to help model the relationship between the energy needed to heat or cool a building and outside air temperature. According to the National Oceanic and Atmospheric Administration, cooling degree days during June, July, and August of 2012 are forecast to be about 14 percent lower than the same period in 2011, although still 8 percent higher than the 30-year normal. [http://www.eia.gov/steo/steo\\_full.pdf](http://www.eia.gov/steo/steo_full.pdf).

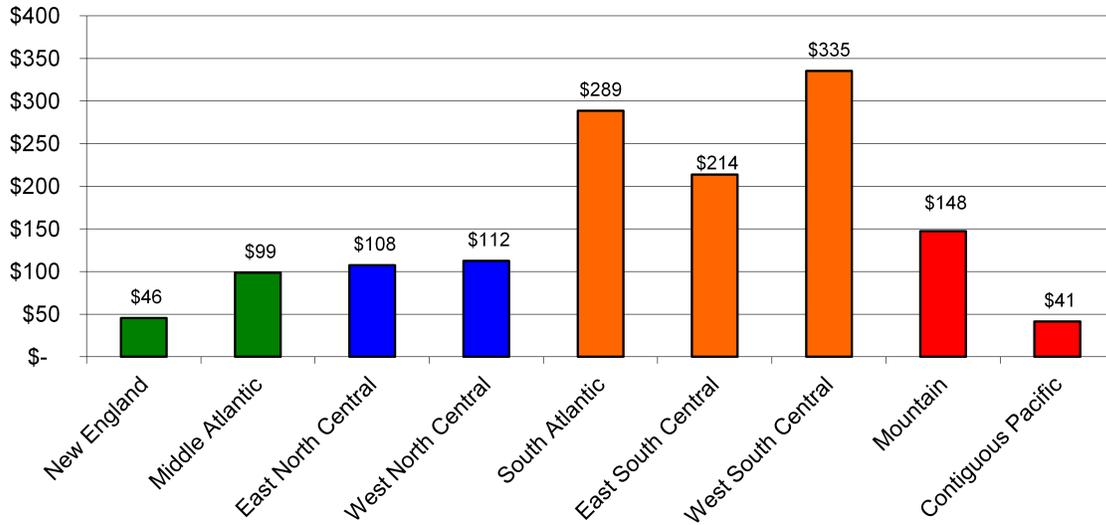
### Distribution of Residences Using Cooling Equipment by Census Region, 2009



Source: 2009 Residential Energy Consumption Survey, Energy Information Administration. Prepared by AARP Public Policy Institute, June 2012.

Cooling costs throughout the United States are influenced by rising electricity costs as well as by the differential need for cooling based on the geographic location of the household. Based on AARP analysis, more than 40 percent of residences using cooling equipment during the summer are in the South census region.

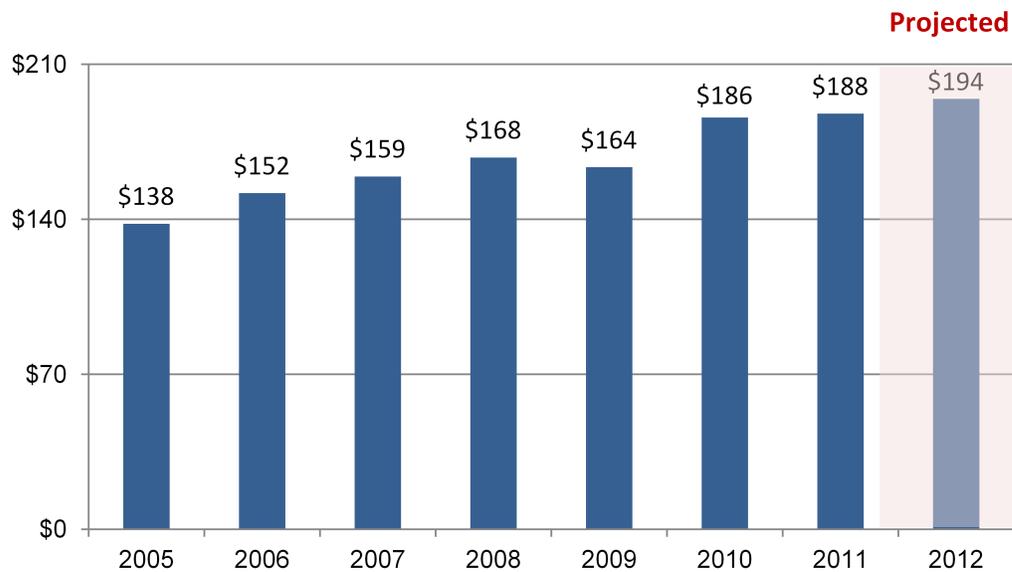
### Projected Cost of Cooling for Householders Age 65 and Older by Census Division, 2012



Sources: 2005 Residential Energy Consumption Survey, June 2012 Short Term Energy Outlook.  
Prepared by AARP Public Policy Institute, June 2012.

Consequently, older consumers living in the South are projected to spend substantially more on cooling costs during the summer of 2012 than those living in other areas.

### Cooling Costs for Age 65+ Households with Incomes below \$15,000, 2005 to 2012



2005 Residential Energy Consumption Survey, June 2012 Short Term Energy Outlook.  
Prepared by AARP Public Policy Institute, June 2012

AARP analysis of EIA data indicates that older consumers with household incomes less than \$15,000 have experienced a 40 percent rise in cooling costs since 2005. Data on electricity consumption show that in general, low-income older consumers tend to use less electricity than higher-income older groups. However, higher cooling costs are expected to have a greater impact on this group than on higher-income older consumers, who have greater financial resources available to meet the increased costs.

According to the LIHEAP Clearinghouse, only 29 states and the District of Columbia had cooling assistance programs in 2011. Average grants for cooling tend to be less than half the amount of those for heating, and in several states depend on the availability of funds that may be exhausted during the state's heating season.

## Cooling Cost Analysis Methodology

This report analyzes data from both the 2005 Residential Energy Consumption Survey (RECS)<sup>3</sup> and the June 2012 *Short Term Energy Outlook* (STEO)<sup>4</sup> to examine cooling-related energy consumption and expenditures among consumers age 65 and older based on income, electricity costs, and geographic location. These data are also used to project older consumers' cooling-related energy consumption and expenditures for summer 2012.

Consumption patterns for cooling among consumers age 65 and older are based on 2005 RECS data.<sup>5</sup>

To account for annual differences in electricity consumption for cooling since 2005, the 2012 consumption pattern is adjusted based on changes in annual electricity consumption as documented by the EIA in its STEO reports. Cooling costs are estimated by multiplying the projected consumption of electricity for cooling by the unit cost of electricity, as indicated by the June 2012 STEO.

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<sup>3</sup> RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS provides demographic characteristics of the household (including age, income, and location), heating fuel type, energy consumption, and expenditures, as well as other information that relates to energy use. See Energy Information Administration, "Residential Energy Consumption Survey: home energy uses and costs," <http://www.eia.doe.gov/emeu/recs/>.

<sup>4</sup> EIA, the statistical agency of the U.S. Department of Energy, produces energy data, analysis, and forecasting. STEO is an EIA monthly publication that contains current and projected prices of various fuel types, including natural gas, fuel oil, electricity, and petroleum. <http://www.eia.doe.gov/steo>.

<sup>5</sup> RECS was updated in 2009; however, as of the writing of this report, household-level consumption and expenditure data have not yet been released.