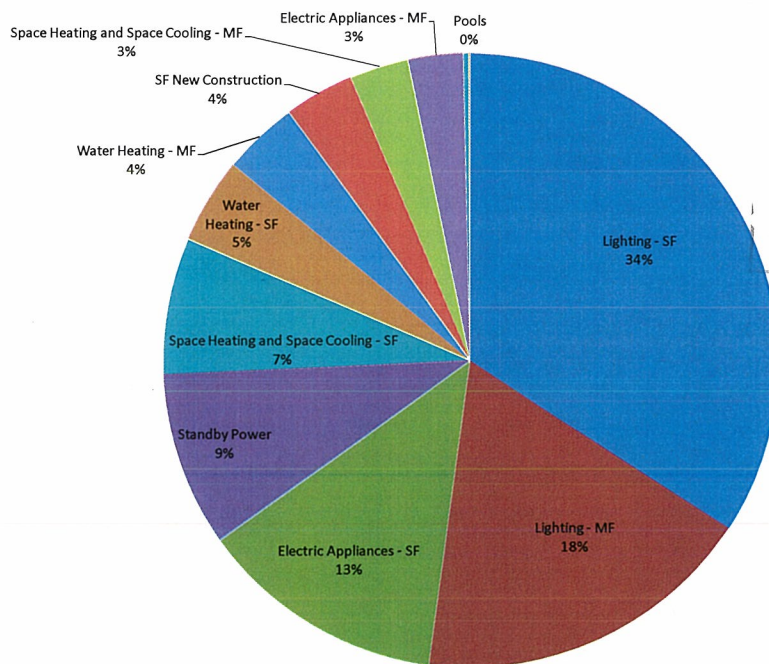


As shown in Figure 1, in the residential sector, New Hampshire’s greatest areas for electric energy savings from the installation of cost-effective energy efficiency measures come from combined single family (SF) and multifamily lighting⁹ (MF) (52% of the annual savings by the year 2018), electric appliances (16% by 2018, combined SF and MF), and space heating and cooling combined SF and MF (10% by 2018) followed by standby (phantom) power (9%) and water heating (9% – 5% SF and 4% MF) and new construction activities (4%). Figure 2 shows the greatest areas for non-electric savings come from space heating (oil-fueled) and water heating (all fuels), nearly 30% each when SF and MF potentials are combined, and weatherization packages (all fuels) in single family homes (16% SF and MF combined). The large potential for savings from oil-fueled space heating measures is not surprising since nearly 60 percent of all homes in New Hampshire heat with oil. The greatest potential for natural gas savings in the residential sector comes from replacement of inefficient gas furnaces and boilers in multifamily and single family homes (nearly 9% and 6% respectively).

Figure 1. Residential Electric Energy Efficiency Maximum Achievable Cost Effective – by End Use



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⁹ Lighting savings in the residential sector are largely being driven by savings from CFL bulbs and or CFL fixtures in single family and multi-family homes. It is very important to note, that these savings might be overstated for the post-2012 period for two main reasons. First, this study does not take into direct consideration future changes to energy codes as they relate to residential lighting applications, including improved federal efficiency standards for incandescent bulbs (the base technology from which current lighting savings are calculated) that are designated to become effective in 2012. This study was conducted based on the standards and energy savings differentials (e.g., between CFLs and incandescent bulbs) in existence as of 2009. Secondly, although this study includes emerging lighting technologies (i.e., LEDs), there is a high likelihood that as these new and emerging lighting technologies enter the market, the penetration of CFLs will be significant and new improved efficiency incandescent light bulbs will also be entering the market. Thus, the incremental savings going from a CFL to a new technology (such as LED or super high efficiency incandescent) will be dramatically lower than the current incremental savings going from standard incandescent to compact florescent (CFL). This consideration was addressed partially by the assumption that new technologies will always emerge, and savings will always be present as a result – however, it is true, that those savings, as stated previously, will be lower, and as a result, may be somewhat overstated during the second half of the study’s 2009 through 2012 forecast horizon.