

# National Grid Rhode Island Residential Appliance Saturation Survey Report

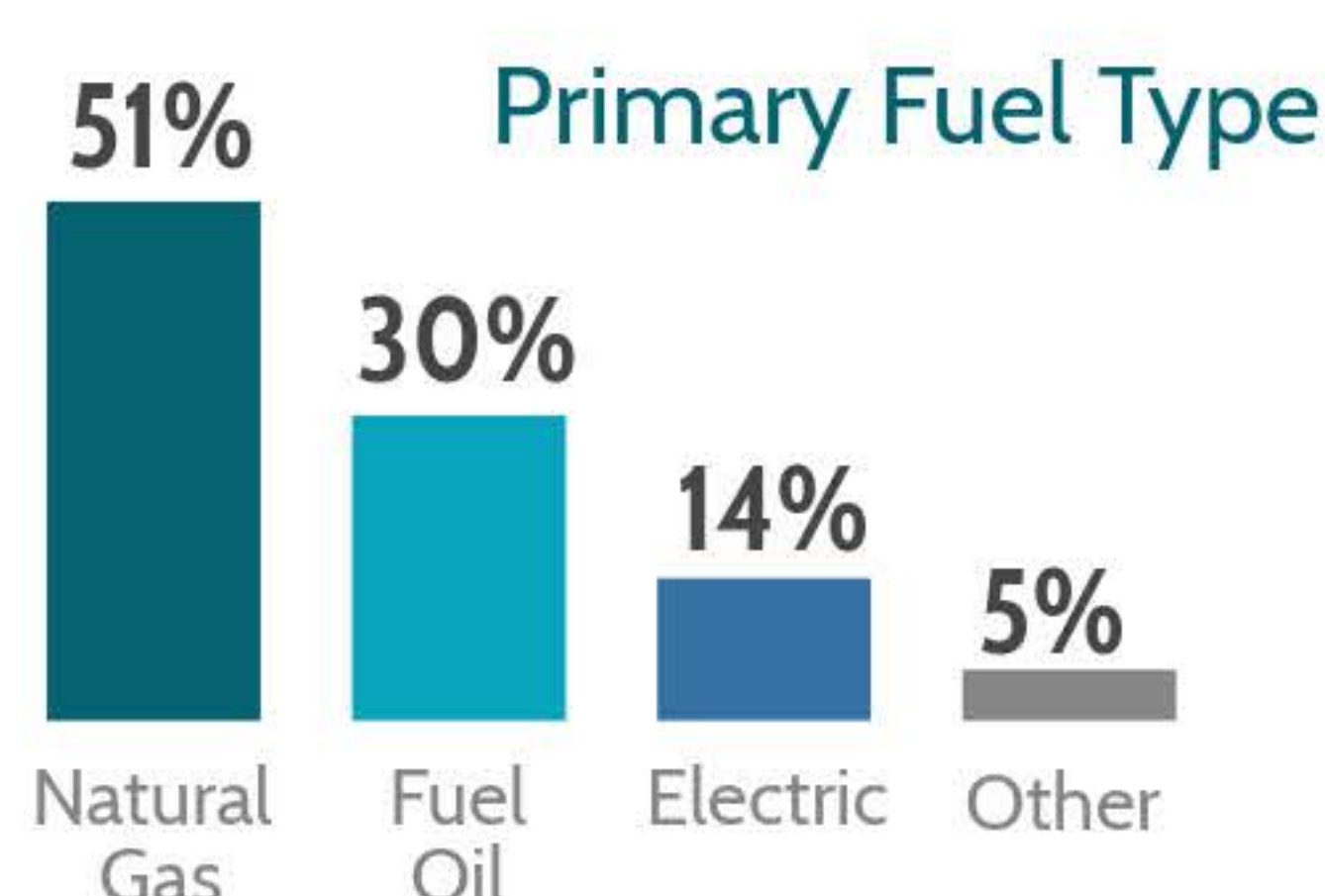
In early 2018, NMR fielded a Residential Appliance Saturation Survey (RASS) study with National Grid Rhode Island customers. This study, consisting of web surveys and on-site verification visits, resulted in the following report and a comprehensive database of results. We sought to estimate penetration and characterize a variety of end-uses among the customer population. The on-site visits enabled us to also estimate the technical potential for mini-split heat pumps.

## Approach



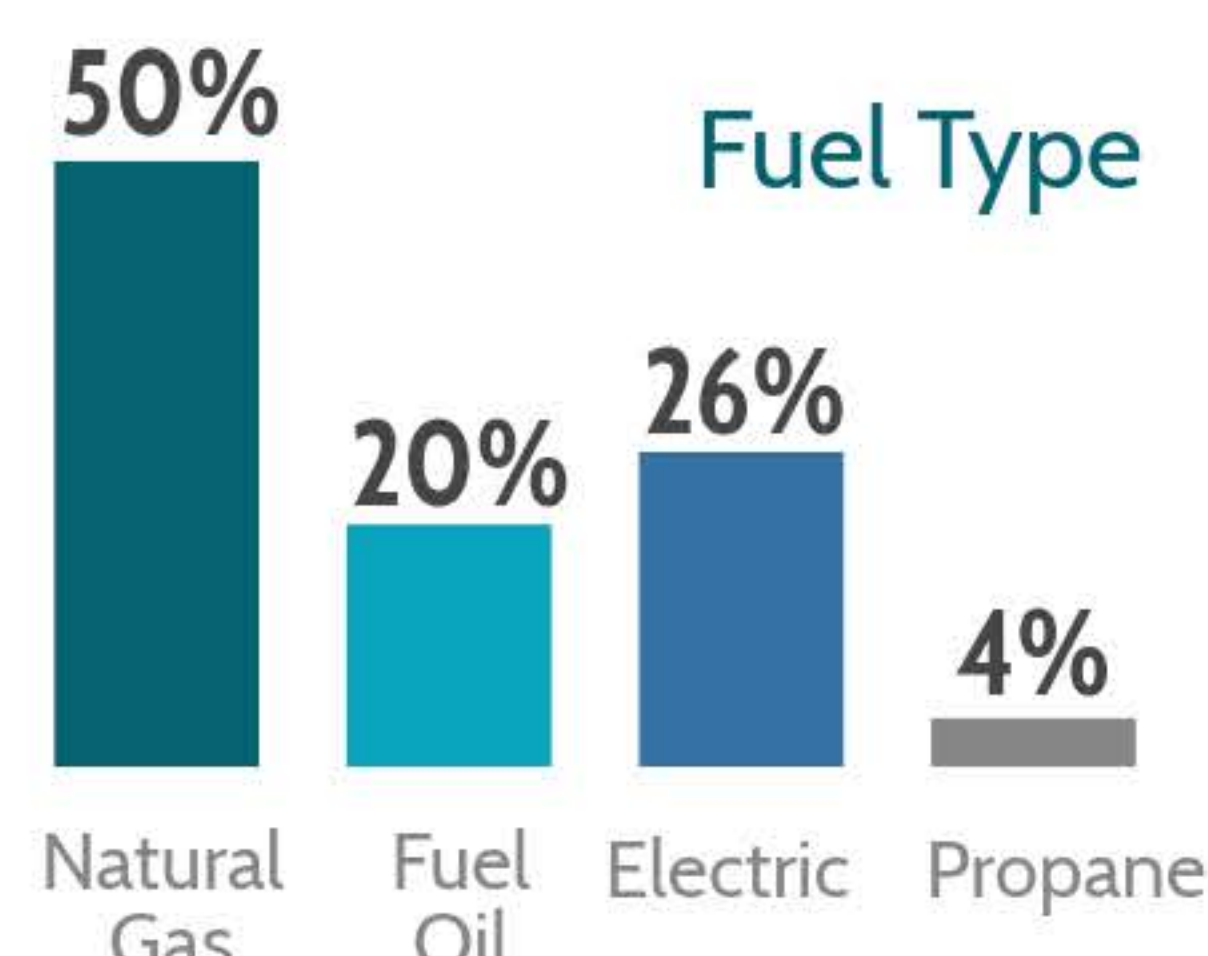
## Select Key Findings

### Heating



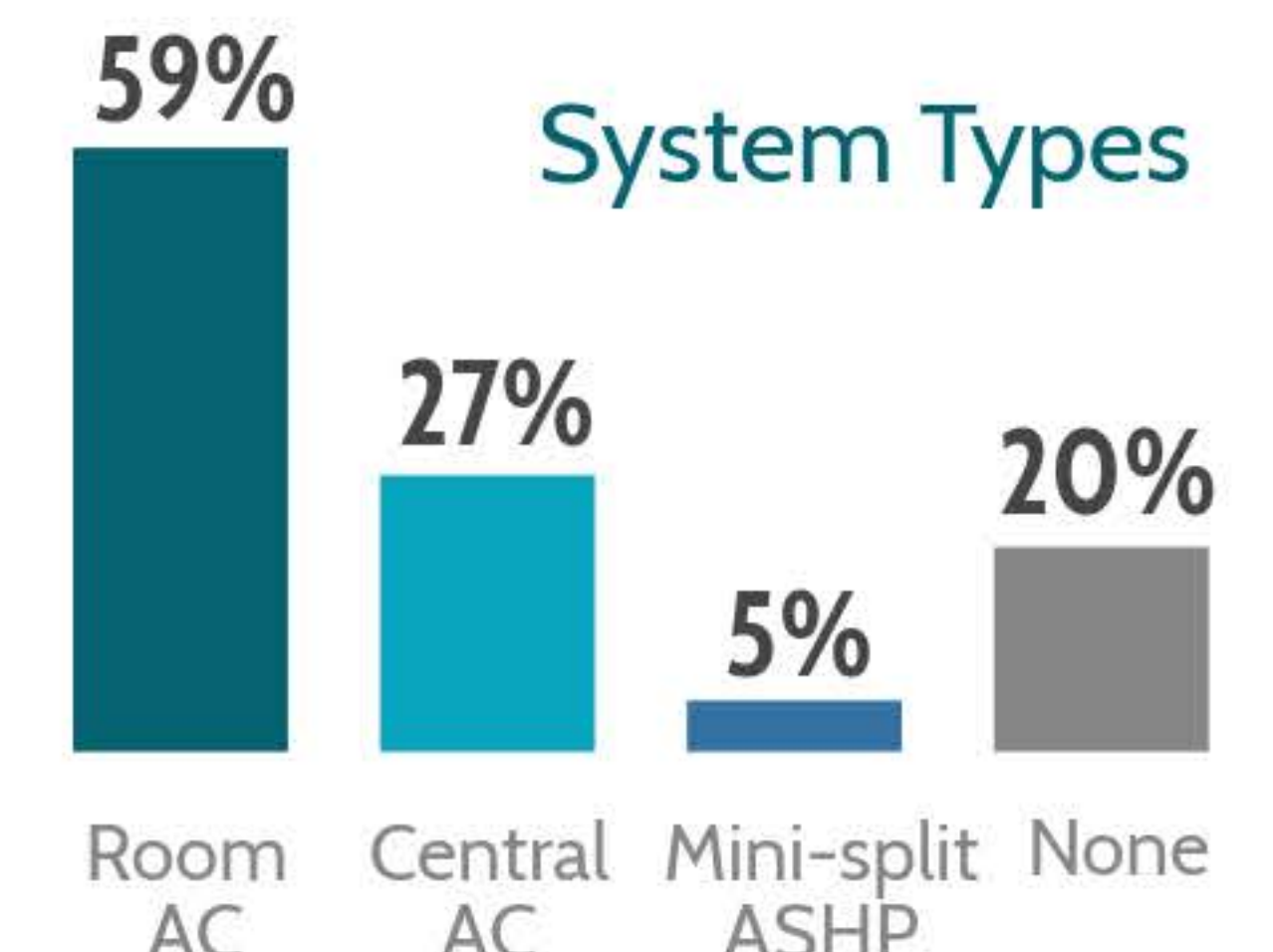
Most often customers use natural gas boilers (37%) and oil boilers (28%).

### Water Heating



Homes most often have natural gas standard tank water heaters (40%). Only 1% of homes have heat pump water heaters, but 36% could readily accommodate them.

### Cooling



Opportunities for MSHPs appear plentiful. Three-fifths (60%) of an average home's floor area is high feasibility.

### Thermostats

Customers most often have standard thermostats (61%). Only 60% of the 51% with programmable thermostats use the programmable features.

### Consumer Electronics

Laptop (81%) penetration overshadows desktop (44%) penetration. Given their newness, advanced power strips have relatively high penetration (27%) -- likely due to National Grid support.

### Solar and Electric Vehicles

Only 1% of homes have photovoltaic solar panels and 1% of customers have plug-in electric or hybrid vehicles.

## Average Equipment Age (years)

