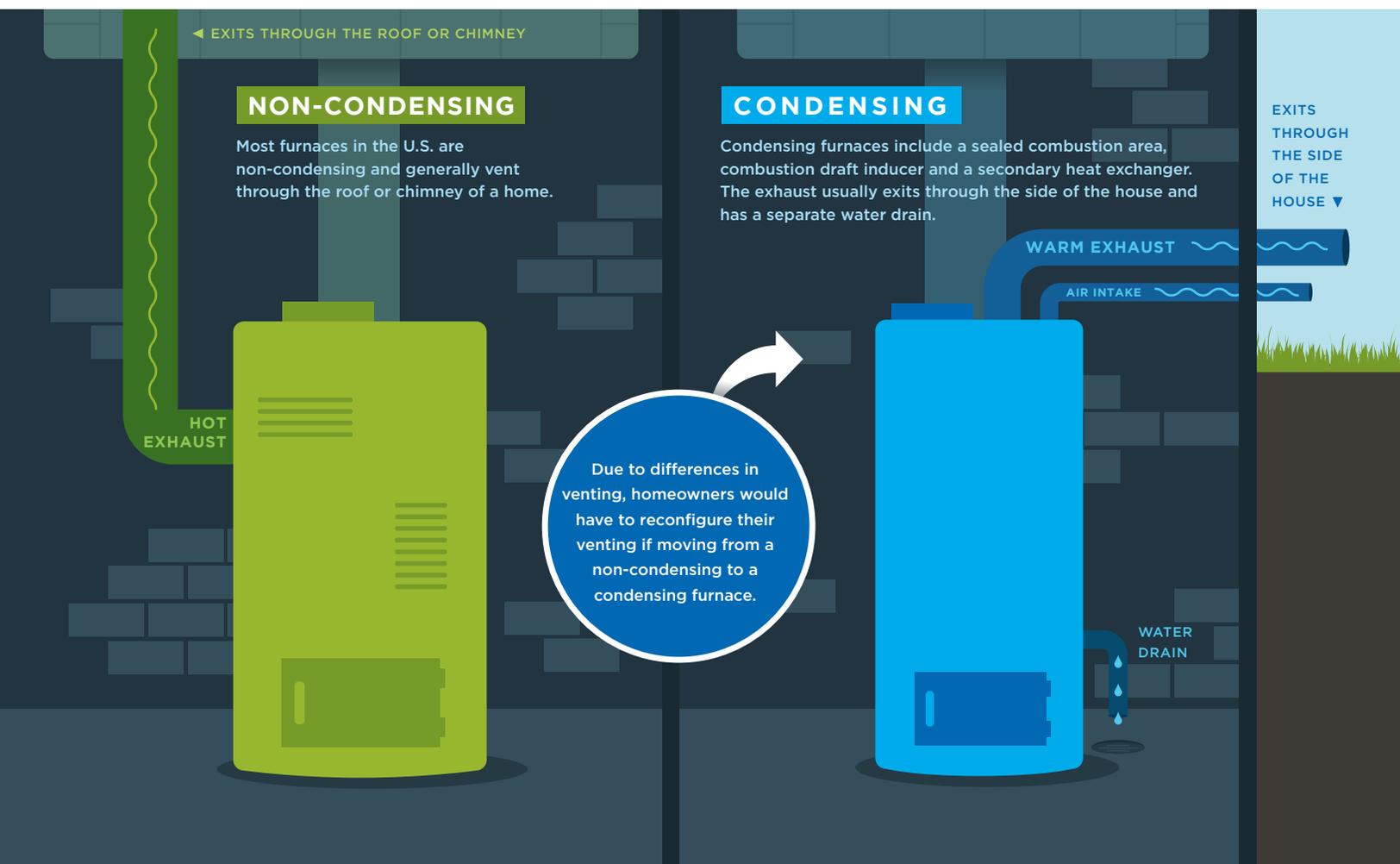


NATURAL GAS: SAFE AND RELIABLE



177 million Americans use abundant natural gas to heat their homes and water and cook their food. But new standards by the U.S. Department of Energy could lead to switching away from natural gas to other fuels that could negatively impact consumer costs and the environment.



These changes could impose significant costs, driving homeowners away from natural gas to alternative fuel heating systems that could be ultimately less efficient and less cost effective.

New standards could eliminate non-condensing furnaces, forcing homeowners and builders to use a condensing natural gas furnace, or because of cost and logistics select an alternative heating system.

New standards from the U.S. Department of Energy could eliminate non-condensing furnaces.

- ▶ Condensing furnaces cannot be connected to the existing venting in a home, and require a new venting system and possible relocation of the equipment. On average, condensing furnaces cost about \$350 more than non-condensing furnaces, along with an additional \$1,500-\$2,200 in possible installation costs.
- ▶ When a consumer lives in an apartment or condominium where outside venting is restricted by homeowner's association, or if a homeowner is unable to meet venting requirements related to nearby windows, doors or other air intakes, installation of a condensing furnace is not an option.
- ▶ Due to these changes, challenges and the associated costs, consumers and builders may be incentivized to move from the use of natural gas to another fuel.
- ▶ If a non-condensing furnace utilized a shared venting system with a water heater and the venting is changed to accommodate a condensing furnace, the water heater venting could become "orphaned," which could lead to dangerous and/or costly consequences. The orphaned venting issue could cause a potentially dangerous carbon monoxide hazard if not addressed, and consumers will need new venting for the existing water heater to meet the code, leading to additional costs.
- ▶ Through a nationwide survey, AGA collected and analyzed data from home builders and HVAC contractors, which indicated a sizeable percentage of change in energy source for heating/water heating systems from natural gas to electric would occur if a condensing furnace standard is established.
- ▶ AGA also developed a marginal cost study to examine why marginal utility rates should be developed and used in technical support documents for minimum efficiency standards rulemakings, demonstrating the sizeable difference (approximately 25%) between average rates and marginal rates, which would have a considerable impact when calculating operating cost savings associated with energy efficiency standards.
- ▶ Using the results from the Contractor/Builder survey along with the marginal cost study, AGA developed a model to project the impact a new efficiency standard requiring condensing furnaces would have on the three key metrics energy efficiency standards are intended to address: consumer energy costs, primary energy usage and CO2 emissions.
- ▶ The modeling results indicated that all of the reductions in energy costs, consumption and emissions that would be achieved by the percentage of households that would move from a non-condensing furnace to a condensing furnace would be more than offset by the incremental energy costs, consumption and emissions associated with the percentage of households that would be forced to switch from a non-condensing furnace to electric heating and water heating systems.
- ▶ A new condensing standard would result in increased overall energy costs, primary energy usage and CO2 emissions.
- ▶ Natural gas utilities are committed to energy efficiency, with investments in programs nearing \$1.1 billion in 2012 and 2013 budgets reaching \$1.5 billion. Through these efficiency investments, utilities helped customers save 136 trillion Btu of energy and offset 7.1 million metric tons of carbon dioxide emissions in 2012.
- ▶ Even a low incidence of changes in heating system choices could have a negative impact on overall energy usage, cost and carbon emissions outcome. It is critical that the U.S. Department of Energy consider the full implications its rules will have on the way Americans heat their homes, and commit to developing a rule that will work toward our shared goals of environmental protection and economic advancement.