What We Are For: American Gas Association (AGA) Positions On Building and Appliance Energy Codes and Standards

AGA's positions on building and appliance energy codes and standards support:

- 1) Technologically feasible and economically justified measures that benefit consumers, *and*
- 2) Measures that reduce overall U.S. greenhouse gas emissions

AGA does *not* support energy efficiency measures that lead to net increases in U.S. greenhouse gas emissions.

AGA supports improved building and appliance energy codes and standards with the knowledge that natural gas distribution company customers have been the leaders in reducing both per capita and total greenhouse gas emissions in homes and businesses. AGA is committed to supporting a continued reduction in U.S. greenhouse gas emissions through increased use of natural gas appliances.

Energy efficiency has long been a cornerstone of U.S. energy policy. More recently, U.S. energy policy has added the new goal of greenhouse gas reductions. AGA believes that the primary goal of energy efficiency policy must be the cost-effective reduction of greenhouse gas emissions. An effective carbon-reduction and energy efficiency policy will reduce net greenhouse gas emissions and net energy consumption as measured on a full fuel-cycle basis.

- 1. AGA supports (1) measurement of energy consumption and efficiency and (2) development of efficiency approaches based on full-fuel-cycle and source energy evaluation of fossil fuel-fired and transport system energy losses.
- Losses and consumption measurement should be based on carbon dioxide equivalents (CO₂e) and other air pollutant emissions.
- AGA's support extends to natural gas end use and gas-fired electricity generation as well as to other fossil fuel-fired energy systems.
- AGA recognizes that full-fuel-cycle and source energy measurement and efficiency approaches place natural gas in a fair and equitable competitive position with respect to, on the one hand, other fossil fuel-fired energy system such as coal-fired electricity generation, and on the other hand, non-fuel and renewable fuel energy systems such as wind, solar, nuclear electricity generation and biogas fuel systems.

By focusing on CO_{2^e} emissions measured on a full-cycle basis, markets will be given clear signals to support low carbon energy systems - not just low carbon appliances or low-carbon generating units.

Why do we say this? By focusing on reducing greenhouse gas emissions, AGA recognizes that certain natural gas appliances will be favored at this time (notably natural gas water heaters, natural gas dryers and, to a lesser extent, natural gas furnaces). However, over time, a focus on CO₂e emissions will lead to a race to produce cleaner energy systems and a net reduction in U.S. greenhouse gas emissions. AGA is willing to accept that any early advantage will be eroded as the nation moves to cleaner energy systems and that this competition will require the natural gas industry to offer ever cleaner natural gas products and systems.

2. AGA supports all energy efficiency codes and standards that are "technologically feasible and economically justified," consistent with federal statutory requirements for minimum efficiency standards for appliances and equipment.

Why do we say this? AGA is willing to accept outcomes meeting these statutory requirements, provided that the analysis on considerations such as engineering, safety, and life-cycle cost are properly done and support proposals.

3. AGA supports coherent use of minimum efficiency codes and standards with market based approaches and incentives to achieve market transformation and economically justified levels of end use efficiency (i.e., an "energy efficiency portfolio" approach), recognizing that individual methods have both limitations and potentials for unintended consequences including increased energy consumption and emissions.

Why do we say this? AGA doesn't support use of minimum efficiency standards for accomplishing all energy efficiency and market transformation objectives because the setting of unreasonably high minimum efficiencies inevitably poses unreasonable costs on at least some consumers at best, and eliminates entire categories of natural gas products at worst. Sole reliance on minimum efficiency standards also poses a heightened risk of unintended consequences, such as causing market shifts toward more energy consumption. This has been the case with water heater minimum efficiency standards. Minimum efficiency standards set the floor for performance and should be considered in conjunction with other measures that achieve higher efficiencies where they can be achieved in a cost effective manner. Also, since all appliances (gas and electric) have theoretical as well as practical limits in efficiency, the setting of very high minimums squeezes out opportunities for other market transformation approaches, which under current federal law DOE has to take into consideration in its minimum efficiency standards approach.

 AGA supports incentives including tax credits, tax deductions, and utilitybased rebates and subsidies for energy efficient appliances and equipment commensurate with the opportunities to reduce energy consumption and emissions.

Why do we say this? Across appliance and fuel types, publicly-funded incentive programs, either through taxes or utility rates, need to use consistent measures to reward source energy and carbon reductions. Other criteria for the size of incentives (i.e., cost per appliance) are not likely to produce cost effective results. Implicit in the "commensurate with the opporlunities" expression is that incentives that, for example, induce a fuel switch (e.g., from fuel oil to natural gas) may warrant a higher level of financial reward than for modestly improving natural gas Efficiency (e.g., from a minimum efficiency gas water heater to EPA ENERGY STAR Levels).

5. AGA supports adoption of performance-based approaches tor ap-plian1.;es.., and buildings as the most efficient means of achieving energy efficiency and emissions objectives. Performance-based approaches are superior to simplistic prescriptive requirements, which may not achieve equitable results across energy types.

Why do we say this? Prescriptive approaches for appliances and equipment, usually based on federal minimum standards, are historically biased toward factors other than comparable cost-effective efficiency. In those cases, natural gas appliances often lose out in the marketplace. The growing emphasis of performance-based approaches in buildings (e.g. U.S. EPA ENERGY STAR for Commercial Buildings) provides a more level playing field for natural gas while at the same time provides a more defensible basis for building designs and mechanical specifications. Increased use of energy modeling has alleviated many historical barriers to performance-based design and compliance assessment. Also, the recent trend in new model codes to performance-based design and compliance (e.g., International Green Construction Code) indicates that performance is growing in importance over simplistic lists of appliance and equipment efficiencies.

6. AGA support codes that permit consideration of full energy choice in performance rating and the specification and selection of appliances and equipment as a means of achieving the most economically efficient energy and emissions savings.

Why do we say this? The current presumption of model codes is that the designer/builder either starls with a "natural gas building" or an "electric building." Historically, this has been a means of addressing controversies between gas and

electric interests. In fact, no one would build a building this way (i.e., presupposing one fuel source and sticking with it no matter what). (AGA recognizes that some buildings may not be able to connect to natural gas where distribution mains are not installed. In such cases a builder should consider the use of propane, itself an lower carbon alternative to grid electricity, until natural gas service might become available). In order to determine the competitiveness of natural gas (pro or con) in building designs, designers need to be able to look at tradeoff opportunities in the energy types of appliances and equipment. Improvements can be determined (using performance evaluation) in a number of ways such as comparing designs to an ad hoc "standard design" or to the least efficient design compliant with minimum codes. (This would require a change in most minimum codes.)

7. AGA supports expansion of use of renewable energy in buildings by supporting installation of natural gas as a primary backup energy source.

Why do we say this? Most solar and other renewable strategies use electricity (often electric resistance) as the backup heat source when the renewable source is insufficient or unavailable. Indeed, this seems to be the working assumption for zero net energy building design. Energy and carbon costs of these approaches are largely undocumented, although anecdotally AGA understands that backup sources generally provide much more in energy services than is considered in designs. Where the backup is electricity, energy and emissions may be unnecessarily high.

8. AGA supports research, development & and demonstration (RD&D) of new energy efficient natural gas appliances and equipment as a means of extending the efficient use of natural gas resources, reducing the emissions contributions from natural gas distribution systems and end use applications including increasing the use of renewable natural gas and blending hydrogen with traditional natural gas, all adding a hand in improving the environment and helping consumers control costs of energy services.

Why do we say this? Virtually every- long-term greenhouse gas reduction scenario assumes the development of new technologies, and the improvement of existing technologies, to reduce greenhouse gas emissions. As the current natural leader in greenhouse gas reductions, the natural gas sector recognizes that R&D can lead to new natural gas technologies that may offer near zero greenhouse gas emissions. With sufficient R&D investment, a very- abundant North American low carbon fuel can provide dramatic greenhouse gas reductions in a cost-effective manner. Additionally, there are major ongoing efforts to increase the use of Renewable Natural Gas (RNG) in existing gas distribution systems as well as using a blend of hydrogen with traditional natural gas to improve the quality of natural gas distributed throughout the country.

9. Within current appliance efficiency rulemakings and impending rulemakings, AGA supports:

AGA supports the January 15, 2021 DOE final interpretive rule determining that use of "non-condensing technology (associated with venting) constitute a performance-related "feature" under the Energy Policy and Conservation Act (EPCA) that cannot be eliminated through adoption of an

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energy conservation standard. AGA supports DOE withdrawl of proposed rules on non-weatherized gas furnaces, gas mobile home furnaces and gas commercial water heaters and looks forward with working with the DOE on new, proposed rulemakings for these products as well as similarly-situated products/equipment and establishing technically feasible and conomically justified minimum efficiency requirements for non-condensing technology and condensing type products.

AGA supports the February 14, 2020, the DOE final rule ("February 2020 Final Rule") to its "Procedures, Interpretations, and Policies for Consideration of New or Revised Energy Conservation Standards and Test Procedures for Consumer Products and Certain Commercial/Industrial Equipment" ("Process Rule") found in 10 CFR part 430, subpart C, appendix A. 85 FR 8626. DOE also published a companion final rule on August 19, 2020 ("August 2020 Final Rule"), that clarified how DOE would conduct a comparative analysis across all trial standard levels when determining whether a particular trial standard level was economically justified. See 85 FR 50937. These rules collectively modified the Process Rule that DOE had originally issued on July 15, 1996 ("1996 Process Rule") into its current form. See 61 FR 36974 and 10 CFR part 430, subpart C, appendix A (2021). While the 1996 Process Rule acknowledged that it would not be applicable to every rulemaking and that the circumstances of a particular rulemaking should dictate application of these generally applicable practices, the revisions made in the February 2020 Final Rule sought to create a standardized rulemaking process that was binding on the Department.