

**UNITED STATES OF AMERICA
BEFORE THE
DEPARTMENT OF ENERGY**

**Energy Conservation Program: Energy) EERE-2014-BT-STD-0005
Conservation Standards for Consumer) RIN 1904-AD15
Conventional Cooking Products)**

**COMMENTS OF
THE AMERICAN GAS ASSOCIATION**

Dated: April 17, 2023

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I. EXECUTIVE SUMMARY

The American Gas Association (“AGA”) submits these comments on the U.S. Department of Energy’s (“DOE” or “Department”) supplemental notice of proposed rulemaking for new and amended energy conservation standards for consumer conventional cooking products (the “SNOPR” or “Proposed Rule”).¹ These comments address a series of important issues related to natural gas cooking products and DOE’s Proposed Rule as summarized below.

The Proposed Rule is an attempt by DOE to remove a large portion of natural gas cooking products from the market. DOE’s Proposed Rule is not an energy efficiency measure, it’s an improper effort to remove gas appliances from the market in violation of the Energy Policy and Conservation Act (“EPCA”). In the SNOPR and the Technical Support Document (“TSD”) DOE claimed that 4% of the gas cooktops on the market included in DOE’s test group met the proposed maximum rate, *i.e.*, a 96% failure rate.² DOE later released a notification of data availability (“NODA”),³ in this proceeding which explained that it excluded gas cooktops that lacked at least one high input rate burner and a continuous cast iron grate from the test group. In other words, the TSD did not include base model gas cooktops.⁴ When those base models are included in the overall analysis, DOE estimated that the Proposed Rule would wipe out 50% of the current gas cooktop models in the market.⁵

¹ *Energy Conservation Program: Energy Conservation Standards for Consumer Conventional Cooking Products*, EERE-2014-BT-STD-0005, RIN 1904-AD15, 88 Fed. Reg. 6,818 (Feb. 1, 2023). *See also*, *Energy Conservation Program: Energy Conservation Standards for Consumer Conventional Cooking Products; Extension of Public Comment Period*, 88 Fed. Reg. 19,122 (March 30, 2023) (extending the comment period to April 17, 2023).

² *See* TSD, Chap. 8, Tbl. 8.2.43. As discussed below, the one test result is barely below the standard by a margin that does not exceed the margin for error in the test method. For that and other reasons, it is possible the test result is not evidence that the tested product could pass the Proposed Rule.

³ *Energy Conservation Program: Energy Conservation Standards for Consumer Conventional Cooking Products*, Correction, 88 Fed. Reg. 12,603 (Feb. 28, 2023).

⁴ *See id.*

⁵ *See id.*

In short, by DOE's estimates, the SNOPR would render 50%-96% of the gas cooktop models currently in the marketplace non-compliant and illegal to manufacture and sell if the proposal is finalized. According to DOE's analysis, this extraordinary regulatory action would result in consumer cost savings for gas cooktops amounting to a scant \$1.51 per year.

Regardless of the exact percentage of cooking products rendered illegal to manufacture through this rulemaking, the SNOPR would clearly and negatively impact the availability of an array of types of gas cooking applications. DOE would limit products that accommodate the needs and desires of consumers and provide a wide range of settings and features needed for various meal preparations, meal sizes, menus, cooking processes, cooking vessel sizes, and more. This is a proposal for individuals who do not cook for their families or experiment with different cuisines and cooking styles. The reality is that an appliance exists for those that do not desire the versatility and performance of a gas cooktop: a microwave. Thankfully, Julia Child was able to cook her masterful creations and have her gas range displayed in the Smithsonian's National Museum of American History before DOE had a chance to ban it.⁶

AGA cannot support the SNOPR due to its unacceptably profound impacts on consumers and the natural gas appliance market, its analytical and procedural defects, and its elimination of consumer energy and cooktop choices. The Proposed Rule is ill-conceived, unlawful, analytically unsupportable, and anti-consumer. The proposed standard amounts to a drastic market elimination of natural gas appliances and would render certain product types unavailable, in violation of 42 U.S.C. § 6295(o)(4). The proposed standard also fails to meet the "economically justified"

⁶ See Julia Child's Kitchen, Fact Sheet, National Museum of American History, Smithsonian, available at <https://americanhistory.si.edu/press/fact-sheets/julia-childs-kitchen> (last visited April 17, 2023) ("The Garland, six-burner, gas commercial range was manufactured in the early 1950s, and was already a used restaurant stove when Julia and Paul purchased it for \$429 in Washington, D.C., in 1956. Julia sang the praises of her "big Garland" throughout her career, and used it until she donated it to the Smithsonian in 2001.").

requirement, in violation of 42 U.S.C. § 6295(o)(2)(B). DOE uses unrealistic costs in its analysis. As detailed in these comments, if DOE used cost data tied to the real world instead, it would fail to justify economically its proposed standard.

Therefore, DOE should rescind the Proposed Rule. Once DOE addresses the critical and material issues discussed in these comments, AGA encourages DOE and stakeholders to develop a solutions-oriented approach to energy conservation that ensures any proposed efficiency standards for cooktops reduce energy use, protect consumers, and preserve natural gas cooking products with the utility and features that customers desire and need.

II. IDENTITY AND INTEREST

AGA, founded in 1918, represents more than 200 local energy companies that deliver clean natural gas throughout the United States. There are more than 78 million residential, commercial, and industrial natural gas consumers in the U.S., of which 96 percent — more than 74 million consumers — receive their gas from AGA members. AGA is an advocate for natural gas utility companies and their customers and provides a broad range of programs and services for member natural gas pipelines, marketers, gatherers, international natural gas companies, and industry associates. Today, natural gas meets more than one-third of the United States' energy needs.⁷ AGA's members serve residential and commercial consumers, the majority of which use natural gas cooking appliances and therefore have a direct and vital interest in both the minimum efficiency standards for these products and the procedures used by DOE to adopt these standards.

⁷ For more information, please visit www.aga.org.

III. AGA SUPPORTS ENERGY EFFICIENCY & CONSERVATION EFFORTS

A. AGA and its Members Actively Invest in and Promote Energy Efficiency

AGA supports energy efficiency and conservation efforts, including the efficient use of natural gas in homes and businesses. AGA appreciates the opportunity to comment on the Department's Proposed Rule, which proposes to amend energy conservation standards for cooking products, including gas cooking tops and optimized burner/improved grates.

Over the past two decades, millions of additional homes and businesses have connected to the U.S. natural gas delivery system. Even as the number of consumers has grown, natural gas use in the residential, commercial, and industrial natural gas sectors has been virtually unchanged, and on a per-customer basis, residential natural gas use has declined by more than 50% since 1970. This steady improvement in residential natural gas use per customer is a direct result of energy efficiency improvements, including tighter building envelopes, more efficient appliances and equipment, behavioral changes in energy consumption, and the effectiveness of natural gas utility efficiency programs. Furthermore, this continual improvement in energy efficiency has helped lead to a decline in overall carbon dioxide emissions as consumers use natural gas more efficiently and substitute less carbon-intensive energy sources.

AGA believes that federal policy should recognize that improving energy efficiency in residential, commercial, industrial, transportation, and other natural gas applications is a cornerstone strategy in reducing greenhouse gas emissions.⁸ AGA and its members actively invest in and promote energy efficiency. AGA has been at the forefront of energy efficiency efforts, and the record is clear. Natural gas utilities lead the way in supporting appliance efficiency standards.

⁸ American Gas Association Climate Change Position Statement, available at https://www.aga.org/globalassets/aga_climate-change-document_final.pdf (last visited April 17, 2023).

Notably, AGA and utilities' efficiency efforts predate the creation of the Department. For decades, AGA and the industry have played a positive and active role in supporting efficiency requirements for natural gas appliances. For example:

- Decades before the Department or its predecessor, the Federal Energy Administration, were formed, AGA and its members supported and promoted minimum efficiency requirements for most natural gas appliances through voluntary standards developed through the consensus process accredited by the American National Standards Institute (“ANSI”).
- The ANSI-accredited standards committees that developed and maintained the voluntary standards for gas appliances, comprised a broad cross-section of representatives from various private and public identities, including consumers, manufacturers, utilities, installers, governmental, testing laboratories, *etc.* AGA was the Secretariat of the ANSI-accredited standards that oversaw the development process and complied with the stringent development procedures required by ANSI, including provisions that encouraged an open and transparent standards development process.
- Most ANSI-accredited safety and performance standards for natural gas appliances historically included a minimum efficiency requirement that the appliances had to meet to comply.
- Detailed test methods for measuring and confirming these efficiency requirements were included in the ANSI-accredited standards.
- Gas appliances that met the ANSI-accredited standards requirements were permitted to include a seal of design certification approval and a listing in the third-party certification testing laboratories directory identifying that the model has met the ANSI-accredited standards provisions. The third-party testing laboratories, including at that time the AGA Laboratory, implemented an annual follow-up testing program that randomly tested models from manufacturers' inventories or in the market to verify compliance with the applicable ANSI standard.
- Many states, local jurisdictions, military specifications, *etc.*, required that gas appliances bought or installed be in compliance with the ANSI-accredited standards with verification by a label or listing from an independent third-party testing agency.
- With the passage of EPCA⁹ at the federal level, the efficiency requirements were phased out of the ANSI-accredited standards for natural gas appliances because of the legislation. The federal regulations preempted the efficiency requirements in the ANSI-

⁹ Energy Policy and Conservation Act, 94 P.L. 163, 89 Stat. 871 (December 22, 1975).

accredited standards. However, the support for energy efficiency by the natural gas industry did not end there. Efficiency test methods developed by the National Bureau of Standards (“NBS”), now known as the National Institute of Standards and Technology (“NIST”), took the test methods from the ANSI-accredited standards for natural gas appliances and incorporated and expanded the efficiency measurement to an annual efficiency measurement that is still incorporated in most DOE federal test methods in place today.

It is also important to note that the efficiency requirements and certification programs outlined above were all voluntary. The costs to conduct the programs were borne by the natural gas and other related industries. No federal funds were used in support of the programs. History demonstrates that AGA and the natural gas industry support appliance efficiency requirements.

B. Natural Gas Utilities Across the Country Have Energy Efficiency Programs

AGA member companies invested \$1.6 billion to support energy efficiency programs in 2019 and budgeted \$1.7 billion for 2020.¹⁰ The pace of annual natural gas utility energy efficiency investments has increased consistently since AGA began tracking data in 2007. The acceleration of energy efficiency deployment in the residential, multi-family, commercial, and industrial sectors and programs targeted at low-income consumers, reflects the commitment of the natural gas utility industry to improvements in energy efficiency, consumer energy affordability, access to reliable energy, and greenhouse gas emissions reductions. Natural gas savings in North America from these programs amounted to just about 500 million therms or 49.96 trillion Btu, the equivalent of 2.64 million metric tons of avoided CO₂ emissions, in 2019 alone.¹¹ These programs reach nearly 7 million residential consumers, more than 380,000 low-income consumers, nearly 140,000 multi-family consumers, more than 130,000 commercial consumers, and 41,000 separate industrial program consumers. The 120+ gas utility ratepayer-funded energy efficiency programs offered

¹⁰ See <https://www.aga.org/research-policy/resource-library/natural-gas-utility-efficiency-programs/> (last visited April 17, 2023).

¹¹ See <https://www.aga.org/wp-content/uploads/2022/04/eereport-part-2-final.pdf> (last visited April 17, 2023).

span every region in the U.S., providing guidance and funding for weatherization, technical assessments, training, and existing and new building programs for equipment replacement and upgrades, e.g., appliances, doors, windows, thermostats, building retrofits, commercial foodservice, process equipment, energy management systems, and custom process improvements.¹² The industry will continue to leverage these established gas energy efficiency programs to accelerate its contribution to the economy-wide decarbonization efforts and goals.

Natural gas utilities across 40 states have natural gas efficiency programs.¹³ Some programs are voluntary utility programs, and others are funded via the state regulatory process. Specifically, a 2019 survey shows that 69 natural gas utilities in 28 states have some form of regulatory funding for efficiency programs.¹⁴ Such programs take many forms and could be part of a regulatory program, a legislative bill, or both.¹⁵ While many natural gas efficiency programs have been in place for years, the breadth and depth of programs continue to grow. Various goals drive efficiency program funding requirements within the U.S., including promoting energy conservation, reducing customer bills, and reducing low-income consumers' cost burden.¹⁶

According to an AGA survey of utilities with efficiency programs, 88 percent have residential efficiency programs, 77 percent have commercial, 68 percent have low income, 25 percent have multi-family , and 9 percent have separate industrial programs.¹⁷ As noted above,

¹² See <https://www.aga.org/wp-content/uploads/2022/12/energy-efficiency-report-partone.pdf>(last visited April 17, 2023).

¹³ Natural Gas Efficiency Programs Report Natural Gas Efficiency Program Characteristics 2019 Program Year, March 2022, available at <https://www.aga.org/wp-content/uploads/2022/12/energy-efficiency-report-partone.pdf> (last visited April 17, 2023).

¹⁴ Natural Gas Efficiency Regulatory Requirements and Cost Recovery Treatment, April 2022, available at <https://www.aga.org/wp-content/uploads/2022/12/eereport-part-3-final.pdf> (last visited April 17, 2023).

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ Natural Gas Efficiency Programs Report Natural Gas Efficiency Program Characteristics 2019 Program Year, March 2022, available at <https://www.aga.org/wp-content/uploads/2022/12/energy-efficiency-report-partone.pdf> (last visited April 17, 2023).

during 2019, enrollments in natural gas efficiency programs reached more than 6.6 million residential consumers, over 380,000 low-income consumers, about 137,000 multi-family consumers, over 130,000 commercial consumers, and 41,000 separate industrial program consumers.¹⁸

C. LDCs Have a Proven Track Record of Reducing GHG Emissions

AGA’s local natural gas utility (“LDC”) members have a proven track record of reducing greenhouse gas (“GHG”) emissions. AGA and its members are committed to reducing GHG emissions through smart innovation, new and modernized infrastructure, and advanced technologies that maintain reliable, resilient, and cost-effective consumer energy service choices. With direction and guidance from policymakers and regulators, the natural gas utility industry continuously invests in modernizing the nation’s natural gas delivery infrastructure to distribute safe, reliable, and cost-effective energy and improve customer efficiency.

Climate change is a defining challenge across the globe, and natural gas, LDCs, and the infrastructure are essential to meeting our nation's GHG reduction goals. As companies continue to modernize natural gas infrastructure and connect homes and businesses to the system, new opportunities arise to achieve low-cost GHG emissions reductions by leveraging new and existing natural gas infrastructure, advanced technologies, and the nation’s abundant natural gas resources.

In February 2022, AGA published a study titled “*Net-Zero Emissions Opportunities for Gas Utilities*”¹⁹ to provide a comprehensive and rigorous analysis demonstrating the multiple pathways that exist to reach a net-zero future and the role natural gas, gas utilities, and delivery infrastructure will play in advancing decarbonization solutions. The study presents a national-level

¹⁸ *Id.*

¹⁹ “Net-Zero Emissions Opportunities for Gas Utilities,” AGA, February 8, 2022, available at [aga-net-zero-emissions-opportunities-for-gas-utilities.pdf](https://www.aga.com/~/media/AGA/Net-Zero-Emissions-Opportunities-for-Gas-Utilities.pdf) (last visited April 17, 2023). The study is appended at Attachment A.

approach that leverages the unique advantages of gas technologies and distribution infrastructure and the foundational role of natural gas energy efficiency. The study underscores the range of scenarios and technology opportunities available as the nation, regions, states, and communities develop and implement ambitious emissions reduction plans. The key findings in the study include:

- Pathways that utilize natural gas and the vast utility delivery infrastructure offer opportunities to incorporate renewable and low-carbon gases, provide optionality for stakeholders, help minimize customer impacts, maintain high reliability, improve overall energy system resilience, and accelerate emissions reductions.
- The ability of natural gas infrastructure to store and transport large amounts of energy to meet seasonal and peak day energy use represents an important and valuable resource that needs to be considered when building pathways to achieve net-zero GHG emissions goals.
- Continued utilization of natural gas and the vast utility delivery infrastructure can increase the likelihood of successfully reaching net-zero targets while minimizing customer impacts.
- The U.S. can achieve significant emissions reductions by accelerating the use of tools available today, including high-efficiency natural gas applications, renewable gases, methane reduction technologies, and enhanced energy efficiency initiatives.
- Large amounts of renewable and low-carbon electricity and gases, and negative emissions technologies, will be required to meet an economy-wide 2050 net-zero target.
- Supportive policies and regulatory approaches will be essential for natural gas utilities to achieve net-zero emissions.

Natural gas and its direct use in homes and businesses has been a cornerstone of America's energy economy for more than a century and will be needed in the future. Today, hundreds of millions of Americans rely on natural gas to heat their homes, cook, power their businesses, and manufacture goods. An emphasis on climate change and reducing emissions has complemented the natural gas utility industry's focus on safety and reliability and enabled a steep decline in methane emissions. These commitments continue, and as our nation moves towards a lower-

carbon economy and embraces new fuels and technologies, the natural gas utilities are ready to meet these changes and will remain integral to the country's future.

All this is to say that the natural gas industry is ready, willing, and able to support cost-effective, consumer-friendly measures to increase efficiency standards. AGA and its members have no aversion to the energy conservation standards program or economically justified and technically feasible measures to improve appliance efficiency rates. Unfortunately, as described below, the Proposed Rule does not fit the bill. The numerous flaws and errors in the Proposed Rule would render a final rule based on the SNO PR unlawful. Furthermore, DOE's own analysis shows that its Proposed Rule will profoundly and negatively affect the market for natural gas cooktops and millions of American cooks.

IV. BACKGROUND

The National Appliance Energy Conservation Act of 1987 ("NAECA"),²⁰ amended EPCA to establish standards for gas cooking products, requiring gas ranges and ovens with an electrical supply cord that are manufactured on or after January 1, 1990, not to be equipped with a constant burning pilot light.²¹ NAECA also directed DOE to conduct rulemakings to determine if further standards were justified for kitchen ranges and ovens.²² The Department published a rule on September 8, 1998, which found that no standards were justified for conventional electric cooking products at that time, and DOE did not include amended standards for conventional gas cooking products in the final rule.²³ In April 2009, DOE issued a final rule amending the energy

²⁰ Public Law 100-12.

²¹ See 42 U.S.C. § 6295(h)(1).

²² See 42 U.S.C. § 6295(h)(2).

²³ *Energy Conservation Program for Consumer Products; Energy Conservation Standards for Electric Cooking Products (Electric Cooktops, Electric Self-Cleaning-Ovens, and Microwave Ovens)*, 63 Fed. Reg. 48,038 (Sept. 8 1998).

conservation standards for consumer conventional cooking products to prohibit constant burning pilots for all gas cooking products manufactured on or after April 9, 2012.²⁴

In June 2015, DOE published a notice proposing new and amended energy conservation standards for consumer conventional ovens, but it deferred its decision regarding whether to adopt amended energy conservation standards for conventional cooking tops, pending further study.²⁵ On September 2, 2016, DOE published a supplemental notice (“September 2016 SNO PR”) proposing new and amended energy conservation standards for conventional cooking tops based on the amendments to the test procedure as proposed in the August 2016 test procedure.²⁶ On December 14, 2020, DOE published a notification of proposed determination (“December 2020 NOPD”) proposing not to amend the energy conservation standards for consumer conventional cooking products.²⁷ In the December 2020 NOPD, DOE initially determined that amended energy conservation standards for consumer conventional cooking products would not be economically justified and would not result in a significant conservation of energy. On February 1, 2023, DOE published the SNO PR seeking comments on the Department’s proposal related to consumer conventional cooking products and on February 28, 2023, DOE published a related NODA.

V. COMMENTS

A. Introduction

AGA and its members, as noted above, support energy efficiency and conservation efforts that are technologically feasible, economically justified, and consistent with the law. As discussed

²⁴ *Energy Conservation Program: Energy Conservation Standards for Certain Consumer Products (Dishwashers, Dehumidifiers, Microwave Ovens, and Electric and Gas Kitchen Ranges and Ovens) and for Certain Commercial and Industrial Equipment (Commercial Clothes Washers)*, 74 Fed. Reg. 16,039 (April 8, 2009).

²⁵ *Energy Conservation Program: Energy Conservation Standards for Residential Conventional Ovens*, 80 Fed. Reg. 33,030 (June 10, 2015).

²⁶ *Energy Conservation Program: Energy Conservation Standards for Residential Conventional Cooking Products*, 81 Fed. Reg. 60,784 (Sept. 2, 2016).

²⁷ *Energy Conservation Program: Energy Conservation Standards for Consumer Conventional Cooking Products*, 85 Fed. Reg. 80,982 (Dec. 14, 2020).

herein, DOE’s analysis of the economic justification and energy savings that underpin the SNOPR suffers from significant methodological and data flaws. Even accepting DOE’s analysis at face value, the Proposed Rule would leave the market and consumers worse off by reducing the range of features and performance characteristics available for gas cooktops . DOE should not find a standard economically justified when consumers and the market will be rendered worse off. The Proposed Rule is not economically justified, as required by EPCA.

Furthermore, AGA cannot support regulatory outcomes that unlawfully remove gas appliances from the market and drive uneconomic and inefficient fuel switching. The Proposed Rule would cause homeowners to shift from natural gas cooktops, since the availability of the appliances would be greatly reduced that have high fuel conversion efficiency, to electric appliances that use electricity from largely fossil-fired generating plants. Those plants have a typical 30-50% fuel conversion efficiency, which is a significant loss of efficiency and manifestly unsound economic and environmental policy.²⁸ Indeed, DOE has recognized the importance of considering the full-fuel-cycle impacts of its efficiency regulations as a basis to assess the potentially counterproductive effects of fuel-switching caused by its regulations.²⁹

Moreover, the Proposed Rule and the Life Cycle Cost (“LCC”) makes unreasonable assumptions about cooktops which undermine the entire analysis. Specifically, a review of the assumptions in DOE’s cost analysis calls into question the basis that the Department used in its cost determinations; therefore, the proposal is not economically justified.

²⁸ U.S. Energy Information Administration, “More than 60% of energy used for electricity generation is lost in conversion,” July 21, 2020, available at <https://www.eia.gov/todayinenergy/detail.php?id=44436> (last visited April 17, 2023).

²⁹ *See, e.g.*, SNOPR, 88 Fed. Reg. at 6,821, n.5.

In 2020, according to the Energy Information Administration (“EIA”) approximately 38% of U.S. households use natural gas for cooking.³⁰ DOE’s proposal will eliminate an affordable cooking option that will negatively affect millions of consumers. The negative consequences are exacerbated by the Department’s failure to recognize the utility and features provided by gas cooktops to customers. EPCA precludes DOE from setting standards that would make products with performance characteristics important to American consumers unavailable. In short, the SNOPR would make various cooktops unavailable to consumers. As a result, the proposed standards would prevent many homeowners from replacing a gas cooktop with the features of its existing appliance or with desired features..

AGA proposes that DOE and stakeholders develop energy conservation standards for cooktops that support the continued increase in market penetration of high-efficiency natural gas appliances where practical and economical, without adopting a rigid policy that affirmatively harms the market and consumers, drives up energy consumption for many consumers, and increases associated emissions. A tailored approach to improving consumer cooking energy efficiency including improvements in cooktops that includes stakeholder input is more appropriate than DOE’s proposal to eliminate a large segment of the natural gas appliance market.

³⁰ EIA, In 2020, Most U.S. Households Prepared at Least One Hot Meal a Day at Home (Aug. 15, 2022), available at <https://www.eia.gov/todayinenergy/detail.php?id=53439> (last visited April 17, 2023). Notably, according to EIA, in various areas the majority of homes use natural gas for cooking including, California (70%), District of Columbia (62%), Illinois (67%), Nevada (60%), New Jersey (69%), New Mexico (50%), New York (62%). See EIA, Highlights for Appliances in U.S. Homes by State, 2020, available at <https://www.eia.gov/consumption/residential/data/2020/state/pdf/State%20Appliances.pdf> (last visited April 17, 2023), Attachment B.

B. The Proposed Rule Suffers from a Series of Procedural and Legal Errors that Render it Unlawful

An initial problem with the SNO PR is that it does not follow the procedural and legal requirements under the EPCA, the Administrative Procedure Act (“APA”), and the Department’s own rules.

1. The Department has Not Followed its Own Process

The Department established procedural standards, known as the Process Rule, to foster fair and transparent rulemaking.³¹ The Process Rule’s procedures are intended to, among other things, increase predictability, eliminate problematic options early in the process, ensure thorough analysis of impacts, and guarantee the use of transparent and robust analytical methods.³² While the Department asserts that it may deviate from the Process Rule in some circumstances, by its own terms, the Department may only do so “when necessary” and after providing stakeholders an explanation for why the deviation is necessary.³³ The SNO PR, without explanation, cause, or reason, fails to adhere to the Process Rule and therefore fails to meet the Department’s rulemaking standards.

The Process Rule pledges that the Department will use transparent, robust analytical methods, that can be reproduced by the public. Section 1(f) notes that “[t]he Department seeks to use qualitative and quantitative analytical methods that are fully documented for the public and that produce results that can be explained and reproduced, so that the analytical underpinnings for policy decisions on standards are as sound and well accepted as possible.”³⁴ The SNO PR, however, fails to do so. On February 3, 2023, the Association of Home Appliance Manufacturers

³¹ 10 C.F.R. Part 430, Subpt. C, Appendix A.

³² *Id.*

³³ *Id.* § 3(a).

³⁴ 10 C.F.R. Part 430, Subpt. C, Appendix A § 1(f).

(“AHAM”) submitted a request for additional data and a corresponding request for additional time to comment. DOE issued the NODA on February 28, 2023³⁵ with certain, but not all, additional information, and declined to extend the comment period. On March 10, 2023, AHAM requested a 45-day extension of the comment period on DOE’s SNO PR. On March 20, 2023, AGA, American Public Gas Association, National Propane Gas Association, and Spire Inc., Spire Missouri Inc., and Spire Alabama Inc. (collectively, “Joint Requesters”) filed a letter requesting further information from DOE in order to meaningfully comment on the Department’s proposal and additional time to analyze the data, *i.e.*, 15 additional days after DOE responded to the information request. On March 30, 2023, DOE extended the comment period by 14-days in response to AHAM’s request. Via an e-mail dated April 13, 2023 to the Joint Requesters,³⁶ DOE provided a response to the March 20, 2023 request noted above; however, DOE declined to provide additional time for comment beyond the April 17 deadline.

AGA is concerned about the timelines established by DOE as part of this and other standard proceedings. Stakeholders should have the ability to meaningfully comment in all DOE proceedings, an absence of sufficient time to comment harms and hinders the ability of stakeholders to fully participate in the rulemaking process. The Process Rule promises that “there will be no less than 75 days for public comment on the SNO PR.”³⁷ In direct contravention of this promise, the Department initially allowed stakeholders only 61 days to comment. This was despite issuing a correction³⁸ to the SNO PR and the NODA. DOE initially rejected extension requests that explained that the comment period was not long enough to allow for meaningful comment on the

³⁵ *Energy Conservation Program: Energy Conservation Standards for Consumer Conventional Cooking Products*, EERE-2014-BT-STD-0005, RIN 1904-AD15, 88 Fed. Reg. 12,603 (Feb. 28, 2023).

³⁶ Email from Appliance Standards Team, U.S. Department of Energy to Joint Requesters, dated April 13, 2023, appended as Attachment C.

³⁷ Process Rule at § 6(f).

³⁸ *Energy Conservation Program: Energy Conservation Standards for Consumer Conventional Cooking Products, Correction*, 88 Fed. Reg. 12,603 (Feb. 28, 2023).

array of issues raised in the SNOPR. In a rule as complex as this, which includes profound and far-reaching impacts on the appliances available to customers and costs for millions of consumers, it is questionable whether 75 days, the minimum contemplated by the Process Rule or extensions requested would even be sufficient. DOE's only explanation for why a shorter comment period was warranted in the SNOPR was the fact that it issued a request for information in 2014 and the September 2016 SNOPR. The fact that DOE issued related items nine (9) and seven (7) years ago, that did not contain the current proposal, is not justification for having only a limited comment period for a new efficiency standard where only 4% of the gas cooktops tested are claimed to have met the proposed standard. DOE did extend the comment period by 14 days, but that took no less than three requests and DOE still did not release all the requested data.

The Department's deviation from the Process Rule and the continued desire to limit the time to provide comments, especially with its nonsensical explanation, is arbitrary and capricious and threatens the validity of the entire rule and the integrity of the rulemaking process. Among other things, the initial SNOPR's failure to follow the Process Rule and the limited extension render it impossible for stakeholders to fully test the methods underlying the rule or address any issues in the modeling, which is a necessary predicate for any discussion about the merits of DOE's proposed standards. DOE's flawed process further hampers stakeholders from evaluating compliance with other aspects of EPCA's and the Process Rule's requirements, including whether the SNOPR's design options "have payback periods that exceed the median life of the product" or "result in life-cycle cost increases relative to the base case."³⁹ The Department should correct these deficiencies by allowing stakeholders access to "quantitative analytical methods that are fully

³⁹ Process Rule at § 7 (c).

documented for the public and that produce results that can be explained and reproduced” and sufficient time to comment on them.⁴⁰

2. DOE’s Process is Inconsistent with the Statutory Requirements

The APA⁴¹ requires that agencies provide a “meaningful” opportunity for comment,⁴² and “in order to satisfy this requirement, an agency must also remain sufficiently open-minded.”⁴³ “That means enough time with enough information to comment and for the agency to consider and respond to the comments.”⁴⁴ Among the purposes of the APA’s notice and comment requirements are: (1) to ensure that agency regulations are tested via exposure to diverse public comment, (2) to ensure fairness to affected parties, and (3) to give affected parties an opportunity to develop evidence in the record to support their objections to the rule and thereby enhance the quality of judicial review.⁴⁵ Due to the issues with the Proposed Rule and the supporting analysis, discussed herein, stakeholders have been denied a meaningful opportunity to evaluate the SNOPR.

As discussed herein, the Proposed Rule lacks essential elements needed to fully understand and evaluate it, depriving stakeholders of the opportunity for meaningful comment.⁴⁶ Moreover, the issues with the data and reasoning offered in support of the SNOPR prevent stakeholders from engaging with the Department on its rationale for the proposed action or offering contrary evidence or alternatives.⁴⁷ AGA has endeavored to respond to the SNOPR in these comments; however, interested parties cannot meaningfully comment upon DOE’s proposal if stakeholders do not have

⁴⁰ See, e.g., Process Rule § 1(f); see also, *Grand Canyon Air Tour Coal. v. FAA*, 154 F.3d 455, 468 (D.C. Cir. 1998) (under the APA “an agency is required to provide a meaningful opportunity for comments.”); *Am. Pub. Gas Ass’n v. DOE*, 22 F. 4th 1018 (D.C. Cir. 2022) (DOE required to provide fulsome notice and explanation for its decisions).

⁴¹ Pub. L. No. 79-404, 60 Stat. 237 (1946) (codified as amended at 5 U.S.C. §§ 551, *et seq.*).

⁴² See, e.g., *Rural Cellular Ass’n v. Fed. Commc’ns Comm’n*, 588 F.3d 1095, 1101 (D.C. Cir. 2009), *Gerber v. Norton*, 294 F.3d 173, 179 (D.C. Cir. 2002).

⁴³ *Rural Cellular Ass’n*, 588 F.3d at 1101.

⁴⁴ *Prometheus Radio Project v. FCC*, 652 F.3d 431, 450 (2011).

⁴⁵ *Id.* citing *I’nt’l Union, United Mine Workers of Am. v. Mine Safety & Health Admin.*, 407 F.3d 1250 (D.C. Cir. 2005).

⁴⁶ See, e.g., Sections V. B. – F., herein.

⁴⁷ *Id.*

an accurate picture of the reasoning that led the Department to the Proposed Rule. The Department's approval of the Proposed Rule (or some variation thereof) would contravene the APA's paramount directive to engage in meaningful public comment and reasoned decision-making.

Also problematic is the unnecessary speed with which DOE is conducting this proceeding in light of the sweeping nature of its impact, potentially affecting millions of consumers and the overall gas appliance market. DOE should not run afoul of the APA requirements that it be open-minded and for the Department to consider and respond to the comments.

3. DOE Should Follow the National Academies of Sciences, Engineering, and Medicine's Recommendations

DOE should follow, or at a minimum respond to, the National Academies of Sciences, Engineering, and Medicine's ("NASEM") Recommendations on its process. NASEM issued a report titled "Review of Methods Used by the U.S. Department of Energy in Setting Appliance and Equipment Standards" ("NASEM Report").⁴⁸ The NASEM Report evaluated the Department's appliance rulemaking process and identified several key areas of DOE's rulemaking process that need improvement. Several of these recommendations align with suggestions AGA and others have made over the years regarding DOE's economic modeling and data availability and would greatly help all stakeholders better understand the agency's process and ensure that DOE bases its decisions on the most appropriate data and models. Some of the most pertinent recommendations include:

- **Recommendation 2-2:** DOE should pay greater attention to the justification for the standards, as required by executive orders and the EPCA requirement that standards be economically justified. DOE should attempt to find significant failures of private markets or irrational behavior by consumers in the no-

⁴⁸ *Review of Methods Used by the U.S. Department of Energy in Setting Appliance and Equipment Standards*, NASEM (2021), available at <https://www.nap.edu/read/25992/chapter/1> (last visited on April 17, 2023).

standards case and should consider such a finding as being necessary to conclude that standards are economically justified.

- **Recommendation 3-5:** DOE should expand the Cost Analysis segment of the Engineering Analysis to include ranges of costs, patterns of consumption, diversity factors, energy peak demand, and variance regarding environmental factors.
- **Recommendation 4-1:** DOE should put greater weight on ex post and market-based evidence of markups to project a more realistic range of likely effects of a standard on prices, including the possibility that prices may fall. This would improve future analyses.
- **Recommendation 4-13:** DOE should place greater emphasis on providing an argument for the plausibility and magnitude of any market failure related to the energy efficiency gap in its analyses. For some commercial goods in particular, there should be a presumption that the market actors behave rationally unless DOE can provide evidence or argument to the contrary.
- **Recommendation 4-14:** DOE should give greater attention to a broader set of potential market failures on the supply side, including not just how standards might reduce the number of competing firms, but also how they might impact price discrimination, technological diffusion, and collusion.

Despite NASEM's clear indication that DOE's analytical methods need improvement, the SNOPR shows no evidence of betterment, indicating DOE's ignoring of NASEM's recommendations. In contravention of Recommendations 2-2 and 4-13, the SNOPR does not identify significant failures of private markets or even provide qualitative estimates of their magnitude in distorting rational economic behavior. Concerning Recommendation 3-5, DOE inadequately considers the diversity of markets and associated energy use patterns of consumers. Regarding Recommendation 4-1, DOE has neither addressed this recommendation nor proposed appropriate follow-up measures to assess errors in its rulemaking assumptions. In contrast to Recommendation 4-14, the SNOPR fails to adequately assess the anticompetitive effect on small manufacturers and suppliers that may be incapable of meeting over-reaching standards. NASEM

sent a letter to DOE on the recommendations.⁴⁹ DOE should revisit the Proposed Rule to address NASEM’s recommendations and allow stakeholders an opportunity to comment on the revisions.

4. The SNOPR Fails to Meet DOE’s Evidentiary Burden

Congress specified that energy conservation standards must be “supported by substantial evidence” on the record.⁵⁰ This requires DOE to support its conclusions with evidence that “a reasonable mind might accept as adequate to support a conclusion.”⁵¹ The substantial evidence standard does not “allow an agency to close its eyes to on-point record evidence without any explanation at all.”⁵² Where DOE relies on assumptions and inputs to support projections or models, it must provide a sufficient explanation of those inputs and assumptions and why they were selected to allow the courts to determine whether those inputs and assumptions are supported by the evidence.⁵³

The SNOPR suffers from many evidentiary shortcomings that fail to meet DOE’s burden. The SNOPR’s conclusion that the proposed standards would be economically justified rely on certain erroneous assumptions and conclusions. AGA details many other significant flaws in the following sections of these comments. Unless and until DOE corrects these flaws and provides stakeholders a meaningful opportunity to comment on those corrections, any version of the proposal will be rendered arbitrary and capricious and unsupported by substantial evidence.

⁴⁹ See <https://regulatorystudies.columbian.gwu.edu/joint-letter-dept-energy> (last visited on April 17, 2023).

⁵⁰ 42 U.S.C. § 6306(b).

⁵¹ *Consolo v. Fed. Maritime Comm’n*, 383 U.S. 607, 619-20 (1966); *NRDC v. Herrington*, 768 F.2d 1355, 1422 (D.C. Cir. 1985).

⁵² *Fogo de Chao (Holdings) Inc. v. U.S. Dep’t of Homeland Sec.*, 769 F.3d 1127, 1147 (D.C. Cir. 2014).

⁵³ *NRDC*, 768 F.2d at 1422.

5. The Proposal Violates the “Unavailability” Provision of EPCA

The SNO PR would result in the unavailability of gas cooktops due to its drastic market elimination of gas products. EPCA authorizes the Department to establish energy conservation standards for certain “covered products;”⁵⁴ however, Congress was careful to ensure that energy conservation standards would not eliminate the availability of appliances or product features that consumers desire and on which they depend. EPCA’s “unavailability provision” prohibits the Department from prescribing “an amended or new energy conservation standard if DOE “finds (and publishes such finding) that interested persons have established by a preponderance of the evidence that the standard is likely to result in the unavailability in the United States in any covered product type (or class) of performance characteristics (including reliability), features, sizes, capacities, and volumes that are substantially the same as those generally available in the United States at the time of such finding.”⁵⁵ To satisfy this “unavailability” requirement, DOE conducts a “screening analysis” as part of its rulemaking process. One of the criteria of the screening analysis eliminates from consideration any design options that would adversely impact product utility or product availability.⁵⁶ Thus, when DOE identifies potential efficiency levels for products, DOE may not consider design options or certain features that may save energy but that might also adversely impact consumer utility. This statutory and regulatory requirement, designed to protect consumer choice, should protect consumers from the drastic consequences of the SNO PR’s proposed maximum rate.

Eliminating 50% of the total market and 96% of the market for desirable cooktops makes gas cooktops—particularly those with features most desirable to consumers, such as high input

⁵⁴ 42 U.S.C. §§ 6295(a), (e), (f).

⁵⁵ 42 U.S.C. § 6295(o)(4).

⁵⁶ 10 C.F.R. pt. 430, subpt. C, app. A § 6(b)(3).

burners and a continuous cast iron grate—unavailable in violation of 42 U.S.C. § 6295(o)(4). Designers and manufacturers of gas cooktops are likely to leave the market rather than spend the millions of dollars required to redesign their products to comply with the SNOPR. Thus, there is a high likelihood that gas cooktops—especially those with features desirable to many consumers—will be rendered unavailable. Congress specifically prevented DOE from using its authority in this way. The current SNOPR is unprecedented in its impact on the availability of gas cooktops in the market. In short, DOE is violating the “unavailability” provision of EPCA by foreclosing cooktop designs with continuous cast-iron grates, multiple high input burners, and other characteristics of “commercial” or “professional” style cooktops.

Congress did not specifically define “performance characteristics” or “performance-related features.” However, EPCA’s text, structure, and context show that the “performance characteristics” and “performance related features” protected from elimination (or being rendered “unavailable”) by energy conservation standards include cooktops with as high input burners and a continuous cast iron grate.⁵⁷

First, a “characteristic” is commonly understood to mean “a distinguishing trait, quality, or property.”⁵⁸ “Performance” refers to a product’s “ability to perform” or the “manner in which a mechanism performs.”⁵⁹ So, a performance characteristic is a distinguishing trait, quality, or property relating to a product’s ability to perform or the way it does so. Similarly, a “feature” is a “prominent part or characteristic” of a product or a “special attraction” such as “something offered

⁵⁷ See *Davis v. Mich. Dep’t of Treasury*, 489 U.S. 803, 809 (1989) (“It is a fundamental canon of statutory construction that the words of a statute must be read in their context and with a view to their place in the overall statutory scheme.”).

⁵⁸ Characteristic, Merriam-Webster Online Dictionary 2022 <https://www.merriam-webster.com/dictionary/characteristic> (last visited April 17, 2023).

⁵⁹ Performance, Merriam-Webster Online Dictionary 2022, <https://www.merriam-webster.com/dictionary/performance> (last visited April 17, 2023).

to the public or advertised as particularly attractive.”⁶⁰ Consistent with this understanding, Congress further directed the Department to consider, among other things, “the utility to the consumer of such a feature,” *i.e.*, the characteristic’s or feature’s usefulness, when evaluating whether to develop separate classes. Through Sections 6294(o)(4) and 6295(q)(1), Congress, therefore, ensured that energy conservation standards would not eliminate traits, qualities, or characteristics of products that make them work for consumers or are otherwise attractive to them.

Second, Congress ensured that the energy conservation standards would be neutral as to which fuels that covered products use, protecting the standards from being used to favor one fuel source over another. Congress prescribed the initial energy conservation standards that it deemed appropriate for furnaces, boilers, and commercial water heaters.⁶¹ It set separate standards for gas, oil, and electric appliances and then directed the Department to update them in certain circumstances, but only at efficiency rates that “the Secretary determines [are] not likely to result in a significant shift from gas heating to electric resistance heating.”⁶² EPCA thus treats classes or categories of products differently, based on the type of fuel they use, demonstrating that separate standards are appropriate to prevent the elimination of fuel-type and other performance-related features from the market. That is true even when it results in the availability of less efficient products that serve the same overall purposes, *e.g.*, heating water/steam.⁶³

Third, Congress ensured that the energy conservation standards would not eliminate a class of covered products or render them unworkable through infeasible or overly costly standards. Any conservation standards must be “technologically feasible and economically justified.”⁶⁴ To be

⁶⁰ Feature, Merriam-Webster Online Dictionary 2022, <https://www.merriam-webster.com/dictionary/feature> (last visited April 17, 2023).

⁶¹ 42 U.S.C. § 6294(a), (e), (f).

⁶² 42 U.S.C § 6295(f)(1)(B)(iii).

⁶³ *See id.*

⁶⁴ 42 U.S.C § 6294(o)(2)(A).

“technologically feasible,” a standard must be capable of being carried out. That is, the entire class of covered products, *e.g.*, all gas cooktops, must be capable of complying with the standards.

Fourth, Congress prohibited the Department from promulgating standards that are “likely to result in the unavailability in the United States of any covered product type (or class) of performance characteristics (including reliability) features, sizes, capacities, and volumes that are substantially the same as those generally available in the United States.”⁶⁵ In short, Congress’ desire was to ensure consumers do not lose the ability to purchase the types of products they desire. Moreover, Congress recognized that products using different fuel types, *e.g.*, gas, oil, and electricity, create valuable options for consumers but operate differently and warrant separate efficiency standards.

Pursuant to 42 U.S.C. §§ 6295(o)(4), AGA requests that any final rule in this proceeding include a written finding that interested persons have established by a preponderance of the evidence that the proposed standards are likely to result in the unavailability in the U.S. of gas cooktops with “performance characteristics (including reliability, features, sizes, capacities, and volumes) that are substantially the same as those generally available in the United States” on the date any such rule issues.

6. The Proposal is Not Economically Justified

Even if these products were not rendered technically “unavailable” under the statute, the current SNO PR’s economic justification analysis is severely flawed because a standard that eliminates such a large percentage of the current market cannot be economically justified.

EPCA specifically requires DOE’s standards for cooktops to be technologically feasible and economically justified.⁶⁶ In determining whether a proposed standard is economically

⁶⁵ 42 U.S.C. § 6295(o)(4); § 6313(a)(6)(B)(iii)(II).

⁶⁶ 42 U.S.C. § 6295(o)(2)(B).

justified, Congress directed DOE to consider, among other things, “the economic impact of the standard on the manufacturers and on the consumers of the products subject to such standard,” “any lessening of the utility or the performance of the covered products likely to result from the imposition of the standard,” and “the impact of any lessening of competition . . . likely to result from the imposition of the standard.”⁶⁷

Eliminating 96% of the most desirable models on the market will have drastic effects on these considerations. The current SNO PR, if finalized, will drive many manufacturers of gas cooktops out of business—either because they cannot afford to overhaul the design of their currently manufactured products or because it strategically isn’t worth it to do so. For instance, some manufacturers may opt out of the U.S. market and focus on international markets without such prescriptive requirements. This will significantly lessen competition and have monopolistic consequences for those manufacturers who remain in business. As a result, competition will be significantly reduced. The outcome is even more grim for consumers. Consumers will have only 4%—at best—of currently-manufactured gas cooktops with some desirable cooking features (like a high input rate burner) to choose from and 0% of the most desirable currently manufactured gas cooktops (like those with multiple high input rate burners) to choose from. Even for those models that consumers can still purchase, the price will inevitably be driven up by the increased demand and decreased supply of the units and the lack of competition among manufacturers in the market. Every economic justification factor mentioned above appears undervalued in the current SNO PR and drastically tips the scale in favor of not finalizing the proposal.

Regarding the impact on utility or performance, DOE simply concludes that the SNO PR presents no problem because the standards would allow “cooking tops to offer at least one HIR

⁶⁷ 42 U.S.C. § 6295(o)(2)(B)(i)(I), (IV), (V).

burner and continuous cast-iron grates.”⁶⁸ It similarly speculates that forcing redesign of commercial and professional style cooktops will not be a problem because “[p]reminum commercial-style [consumers] are not as cost sensitive as other [consumers.]”⁶⁹ These assumptions are false.

7. The Proposal Unlawfully Imposes “Performance” and “Design Requirements” on Gas Cooktops

The SNO PR exceeds DOE’s authority because it effectively imposes “design requirements” on gas cooktops. DOE lacks authority, such as limiting cooktop design to three small burners and one large burner. The SNO PR does not explicitly limit the number or size of burners a gas cooktop may have; however, the SNO PR’s maximum rate effectively imposes such a design requirement because cooktops with more than one high input burner cannot comply with the proposal and there is no real evidence that products with cast-iron grates and even one high-capacity burner could satisfy the proposed standard based on issues with the test results.⁷⁰ DOE even acknowledges that only some cooktops with one high input burner can meet the proposed standard and those with more than one cannot.⁷¹ The SNO PR exceeds DOE’s authority by prescribing standards that are effectively both performance and design standards.

First, EPCA allows DOE to issue a performance standard or a design requirement, not both. EPCA specifies that energy conservation standards may take the form of (1) a performance standard that prescribes “a minimum level of energy efficiency” or a “maximum quantity of energy use,” “or” (2) “a design requirement” for certain products, including “[k]itchen ranges and

⁶⁸ SNO PR, 88 Fed. Reg. at 6,886.

⁶⁹ *Id.* at 6,887.

⁷⁰ *Id.* at 6,883.

⁷¹ *Id.*

ovens.”⁷² This demonstrates that Congress intended for DOE to select only one of these options.⁷³ Indeed, DOE has acknowledged this in prior rulemakings.⁷⁴

Perhaps in recognition of this limitation, DOE has attempted to distance itself from prescriptive design requirements. The current standards for cooktops, which the SNO PR proposes to revoke, impose only a design requirement—the prohibition of constant burning pilot lights.⁷⁵ The SNO PR similarly purports not to prescribe a design standard for the number or types of burners that a cooktop may have, but it acknowledges that the proposed standards will have the effect of doing so. For example, DOE asserts that some gas cooktop models with “at least one [high input rate] burner” may still meet the proposed standards, but does not even claim that models with multiple high input rate burners can.⁷⁶ It appears that most of the products DOE tested had multiple high input burners and all exceeded the proposed standard. Due to issues with the test results is not clear if there is even support of the claim that products with cast-iron grates and a single high input burner could satisfy the Proposed Rule.

Despite DOE’s claim that the standards do not contain a design element, the effective limitation on the number and types of burners is both a design and a performance standard and is therefore unlawful. The D.C. Circuit adopted a similar rationale when it rejected another energy conservation standard in *Hearth, Patio, & Barbeque Association v. DOE*.⁷⁷ There, the court

⁷² 42 U.S.C. § 6291(6) (emphasis added); *see also id.* § 6292(a)(10) (showing kitchen ranges and ovens are among the products referenced in § 6291(6)).

⁷³ *See Encino Motorcars, LLC v. Navarro*, 138 S. Ct. 1134, 1141 (2018) (Congress’s use of “or” is almost always disjunctive); *United States v. Moore*, 613 F.2d 1029, 1040 (D.C. Cir. 1979) (“Normally, of course, ‘or’ is to be accepted for its disjunctive connotation, and not as a word interchangeable with ‘and.’”).

⁷⁴ *See Energy Conservation Standards and Test Procedures for Commercial Heating, Air-Conditioning, and Water Heating Equipment*, 74 Fed. Reg. 36,312, 36,322 (July 22, 2009) (“[A] standard that establishes both a performance standard and a design requirement is beyond the scope of DOE’s legal authority, as would be a standard that included more than one design requirement.”).

⁷⁵ *See* 10 C.F.R. 430.32(j) (current standard); 88 Fed. Reg. at 6,819-20 (proposing to revoke the standard but noting that “the proposed performance standards of 1,204 kBtu per year for gas cooking tops would not be achievable by products if they were to incorporate a constant burning pilot”).

⁷⁶ SNO PR, 88 Fed. Reg. at 6,883.

⁷⁷ *Hearth, Patio, & Barbeque Association v. DOE*, 706 F.3d 499 (D.C. Cir. 2013).

vacated and remanded DOE's standards for direct heating equipment. Among other reasons, the court rejected DOE's pretextual argument that it had not imposed a design requirement for a class of products that were ineligible for design requirements.⁷⁸ The rule gave manufacturers the option of meeting either DOE's efficiency standard or a third-party standard that would have required elimination of constant burning pilot lights.⁷⁹ DOE argued that the rule did not include a design requirement "because meeting the [third party standard] is completely optional and at the manufacturers' discretion."⁸⁰ But the court held that "[h]aving conceded that the [third party-standard] was a design requirement—though not a mandatory one—the agency's argument is . . . an entirely unavailing post hoc rationalization."⁸¹ Similarly here, DOE's argument that proposed standards that can only be met through re-designing the cooktops to eliminate high input burners are not design standards is unavailing. "DOE cannot now escape these limits [in EPCA] through its 'linguistic jujitsu.'"⁸²

In addition, and as noted above, the standards would violate EPCA's "unavailability" provision by foreclosing cooktop designs with continuous cast-iron grates, multiple high input burners, and other characteristics of "commercial" or "professional" style cooktops. A standard that preserves few (if any) gas cooktop models with one high input rate burner and no gas cooktop models with two or more high input rate burners will significantly decrease the utility of gas cooktops to consumers. High input rate burners are desirable to many consumers—DOE itself acknowledges as much, when it states in the NODA that it is aware that customers desire features

⁷⁸ *Id.* at 509.

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ *Id.*

⁸² *Id.* at 507 (quoting *Sherley v. Sebelius*, 644 F.3d 388, 399 (D.C.Cir.2011) (Henderson, J., dissenting)).

it plans to eliminate.⁸³ For example, high input rate burners allow consumers to use high heat cooking methods such as searing and stir-frying. Cooking multiple dishes through these methods at the same time is vital to many consumers and the elimination of such features would negatively impact home cooks and communities that prefer certain foods, as discussed below.

8. The Courts Will Not Defer to the Department’s Proposed Interpretation of the “Unavailability” and “Performance-Related Features” Provisions

The starting point for any inquiry into whether an agency has the authority to promulgate a rule is the words of the governing statute. An agency may not exercise its authority “in a manner that is inconsistent with the administrative structure that Congress enacted into law.”⁸⁴ Rather the agency and the courts “must give effect to the unambiguously expressed intent of Congress.”⁸⁵ Even where, as here, an agency relies on a purported ambiguity, the courts will not defer to an agency’s interpretation until first “exhausting all the ‘traditional tools’” of statutory interpretation and determining the statute is genuinely ambiguous.⁸⁶ Only after making such a determination will the courts evaluate whether the “agency’s answer is based on a permissible construction of the statute” and therefore subject to deference.⁸⁷

The courts will pay particular scrutiny to the Department’s interpretation in this case because the Department asserts the authority to eliminate the availability of a class of natural gas appliances with desired features to millions of Americans.⁸⁸ Courts presume that “Congress

⁸³ NODA, 88 Fed. Reg. at 12,604 (“DOE did not consider any efficiency levels that could not be achieved by gas cooking tops with HIR burners and continuous cast-iron grates because DOE is aware that some consumers derive utility from these features.”); SNOPR, 88 Fed. Reg. at 6,845.

⁸⁴ *ETS Pipeline Project v. Missouri*, 484 U.S. 495, 517 (1988).

⁸⁵ *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 842-843 (1984).

⁸⁶ *Kisor v. Wilkie*, 139 S. Ct. 2400, 204 L. Ed. 2d 841 (2019); *Chevron U.S.A. Inc.*, 467 U.S. at 843 n. 9.

⁸⁷ *Chevron U.S.A. Inc.*, 467 U.S. at 843.

⁸⁸ Indeed, the rule implicates “major questions” of political and economic significance. *See West Virginia v. EPA*, 142 S. Ct. 2587 (2022).

intends to make major policy decisions itself,”⁸⁹ and “[e]xtraordinary grants of regulatory authority are rarely accomplished through ‘modest words,’ ‘vague terms,’ or subtle device[s].”⁹⁰

As discussed above, Congress made its intentions quite clear in EPCA. The Department must consider characteristics or aspects of a class of covered products that make them useful to consumers, “a performance-related feature” that warrants separate standards, and it must not set standards that would be “likely to result in the unavailability” of currently available “performance characteristics.” The Department’s interpretation to the contrary is not based on any ambiguity in the statute, but rather a desired policy outcome that fails to adhere to the structure Congress enacted into law. Even if there was ambiguity, the Proposal does not present a “permissible interpretation of the statute.”

C. DOE’s Analysis Contains Various Errors and Omissions

1. DOE’s Test Method is Flawed

The methodology used to test the annual energy consumption of any stove is flawed because it includes a pre-determined bias towards higher-end capacity burners. High-capacity burners are features consumers want on their gas stoves because of their utility to any kitchen. They allow for the boiling of very large amounts of water without long wait times and reach a full boil. They also allow cookware to reach ideal surface temperatures for cooking normal portions of food while maintaining that temperature despite the initial shock from administering room-temperature ingredients onto a pan.

DOE’s test procedure tests only one task, boiling very large quantities of water, which in theory could allow for cross-comparison of burners. However, DOE’s real-world analogy for

⁸⁹ *United States Telecom v. FCC*, 855 F.3d 381, 319 (D.C. Cir. 2017).

⁹⁰ *West Virginia v. EPA*, 142 S. Ct. 2587, 2609.

cooking on any gas stove is that a high-capacity burner with over 14,300 BTU output is only used to boil more than 1 gallon of water. This is enough water to cook between 1 and 2 pounds of dry pasta, more than enough servings for up to 8 people. Or, in terms of dry ingredients, this would translate to 9 pounds of food. The key concern is that when compared to electric stoves, gas stoves always test using more quantities of water despite serving the same function. The typical electric stove includes a 6 (150mm) and a 9-inch (230mm) coil heating surface. Very high-end induction stoves may come with a 10.25-inch (260mm) surface. The electric stoves determine pot and water quantities based on the footprint of the coil. Gas cooktops use BTU content, which is not equal and not a comparable test.

Table 3 – Sizes of standardized cookware and water amounts

Diameter of the cookware bottom (outside) mm	Diameter of the lid mm	Lid hole circle diameter mm	Number of holes on the circle	Total cookware height (outside) mm	Flatness of cookware bottom mm	Water load g	Cooking zone size category mm	Standardised cookware categories
120 ± 0.5	130 ± 1	80 ± 1	7	125 ± 0.5	≥ 0 < 0.075	650	≥ 100 < 130	A
150 ± 0.5	165 ± 1	110 ± 1	11	125 ± 0.5	≥ 0 < 0.075	1 030	≥ 130 < 160	
180 ± 0.5	200 ± 1	140 ± 1	16	125 ± 0.5	≥ 0 < 0.075	1 500	≥ 160 < 190	B
210 ± 0.5	230 ± 1	170 ± 1	22	125 ± 0.5	≥ 0 < 0.1	2 050	≥ 190 < 220	C
240 ± 0.5	265 ± 1	200 ± 1	29	125 ± 0.5	≥ 0 < 0.1	2 700	≥ 220 < 250	
270 ± 0.5	300 ± 1	230/210 ^a ± 1	18/18 ^a	125 ± 0.5	≥ 0 < 0.15	3 420	≥ 250 < 280	D
300 ± 0.5	330 ± 1	260/210 ^a ± 1	23/22 ^a	125 ± 0.5	≥ 0 < 0.15	4 240	≥ 280 < 310	
330 ± 0.5	365 ± 1	290/270 ^a ± 1	27/27 ^a	125 ± 0.5	≥ 0 < 0.15	5 140	≥ 310 ≤ 330	

^a Number of holes are arranged on two hole circles.

Nominal gas burner input rate (Btu/h)		Test vessel diameter (mm)	Water load mass (g)
Minimum (>)	Maximum (≤)		
	5,600	210	2,050
5,600	8,050	240	2,700
8,050	14,300	270	3,420
14,300		300	4,240

The smallest burner on a gas cooktop uses an 8.25-inch pot with 2,050 grams of water, while an electric stove would test a 6-inch pot with half the water or 1,030 grams. The same is true for high-capacity burners which automatically use an 11.8-inch (300mm) pot and 4,240 grams (1.12 gallons). All 21 test stoves have at least one burner with this pot, some with outputs between 15,000 and 25,000. This range in BTU is bigger than the range DOE created for the test itself, with only 8,600 BTU difference in the burners between the tests utilizing the smallest pot and the largest. Electric cooktops with coils that serve the same purpose typically get a smaller pot that is between 8 and 9 inches and receives 2,050 or 2,700 grams of water. This would increase the amount of water tested on a comparable gas stove by 58% to 106% for the same purpose. Correcting this difference would narrow the comparable annual energy consumption between electric and gas cooktops. It could also possibly reduce the annual energy consumption for gas cooktops in the LCC analysis if the gas cooktop test used similarly sized pots as the electric test, as this would lower each TSL recommended annual consumption which in turn drives the average consumption for all 10,000 Monte Carlo simulated trials.

The testing of different quantities of water also does not test the overall efficiency of the average burner because, across different ranges, different quantities of water are being used. Always using the same quantity of water would allow for a closer estimate of the total coefficient of performance (“COP”) between stove designs. Efficiency standards could then be better tailored to COP rather than likely annual usage, which will never be reflected in the average real-world use. For evidence of the range of usage, look to the EIA Residential Energy Consumption Survey data used in the LCC analysis to find that customers typically use their gas stoves for general cooking between 1% and 20% of the time.

DOE’s test also leaves room for the possibility of human error when testing stoves. DOE’s own test results for the 21 cooktops in the SNOPR do not clearly state if they were pre-tested to determine the ideal settings for the cooktops. This results in an average of two tests for each burner that might include a higher energy consumption run than otherwise would have happened. Real-world usage of a stove might contain such errors on day one, but all users would have a learning curve that would fine-tune the use of a stove after the first use. DOE must include the pre-test in this rule’s TSD to better understand their results and the impact they could have.

DOE has neglected to identify specifically why only one cooktop produced a result lower than the new standard when others tested have very similar features but failed. With only one test result claimed to have passed the proposed standard, it is impossible to determine if this result is repeatable or achievable on other appliances.

DOE’s decision to set the standard as a maximum energy requirement rather than a new minimum efficiency level and justifying that decision with only a single test result that achieves compliance, is concerning and inconsistent with DOE’s prior rulemaking on gas appliances. It is also possible that this one cooktop that passed the test might fail a second test leaving no gas

cooktops that can consistently pass the proposed standard. The single cooktop only met the requirement by 1.5% of the estimated annual consumption. This is within the margin of error and the margin is small enough to possibly not be reproducible per the discussion at in DOE’s test procedure for cooking products final rule.⁹¹

2. DOE Continues to Utilize Energy Price Projections with an Upward Bias, Consistently Overestimates Future Natural Gas Costs, and Should Utilize Price Distributions Instead of a Mean

In the SNOPR, DOE uses an energy price forecast based on the Annual Energy Outlook (“AEO”) that has consistently overestimated future natural gas energy costs. AGA conducted a review of forecasted prices versus actual prices using historical AEOs back to 2010. The AEO reported higher prices for residential consumers for 70% of the period analyzed and 86% for commercial consumers nationally. The only year with higher actual versus forecasted prices is the most recent year or 2021 (“2022 AEO”), which is heavily impacted by the COVID-19 pandemic and widespread supply chain issues.

While uncertainty is a significant factor in any projection or forecast, the statistically biased outcome towards higher prices in the AEO compared to what is reported historically presents a need for DOE’s analysis to utilize a distribution of prices in its model simulations and not a forecasted mean. The figures below compare what EIA reports as actual prices versus what was projected in each AEO.

⁹¹ *Energy Conservation Program: Test Procedure for Cooking Products*, 87 Fed. Reg. 51,492, 51,498-99 (Aug. 22, 2022).

Actual Residential Historical Prices vs Annual Energy Outlook Forecast

	Historical Data	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Forecast Release Year Data	2010	\$ 13.08	\$ 13.89	\$ 12.14	\$ 11.39	\$ 11.03	\$ 10.65	\$ 10.32	\$ 10.97	\$ 10.38	\$ 10.05	\$ 10.91	\$ 10.50	\$ 10.51	\$ 10.78	\$ 12.24
	2011	\$ 13.32	\$ 13.87	\$ 11.72	\$ 11.21	\$ 12.12	\$ 12.21	\$ 11.81	\$ 11.74	\$ 11.89	\$ 11.99	\$ 12.03	\$ 12.10	\$ 12.18	\$ 12.30	\$ 12.42
	2012		\$ 13.99	\$ 12.20	\$ 11.31	\$ 10.56	\$ 10.44	\$ 10.39	\$ 10.28	\$ 10.39	\$ 10.50	\$ 10.61	\$ 10.74	\$ 10.90	\$ 11.16	\$ 11.38
	2013			\$ 12.25	\$ 11.36	\$ 10.65	\$ 10.78	\$ 10.69	\$ 10.38	\$ 10.56	\$ 10.61	\$ 10.67	\$ 10.80	\$ 10.94	\$ 11.11	\$ 11.42
	2014				\$ 11.62	\$ 11.05	\$ 10.71	\$ 10.72	\$ 10.49	\$ 10.39	\$ 10.91	\$ 11.24	\$ 11.66	\$ 11.89	\$ 12.05	\$ 12.24
	2015					\$ 11.22	\$ 10.69	\$ 10.62	\$ 11.44	\$ 11.24	\$ 10.92	\$ 11.25	\$ 11.71	\$ 11.88	\$ 11.85	\$ 12.06
	2016						\$ 10.86	\$ 10.29	\$ 10.80	\$ 10.62	\$ 10.48	\$ 10.65	\$ 10.84	\$ 11.38	\$ 11.92	\$ 12.29
	2017								\$ 11.08	\$ 10.40	\$ 9.70	\$ 9.87	\$ 10.28	\$ 10.67	\$ 11.08	\$ 11.19
	2018									\$ 10.58	\$ 10.22	\$ 10.91	\$ 10.92	\$ 11.06	\$ 11.20	\$ 11.31
	2019										\$ 10.30	\$ 11.17	\$ 10.77	\$ 11.19	\$ 11.47	\$ 11.59
	2020											\$ 11.18	\$ 10.75	\$ 10.71	\$ 11.00	\$ 11.08
	2021													\$ 10.80	\$ 10.39	\$ 10.53
	2022														\$ 10.54	\$ 10.81
																\$ 12.15

*Red highlighted cells note forecasted prices that were higher than what was reported historically by EIA.

3. DOE’s LCC Model Makes Unreasonable Cost Assumptions About Cooktops

A review of the assumptions in the DOE cost analysis calls into question the basis that the Department used in its cost determinations and, therefore, the economic justification of the proposed standards. In past rulemaking notices, DOE has gone into detail to explain as much about the product as possible. However, with this cooking products rulemaking, they have distilled the simplest analysis to show any cost savings to consumers. With cooktops, DOE has defined many fixed costs using only simple national averages. In contrast, many variables and simulations define consumption. The Department has chosen to use a test method that is unfair and unequal between source energies. DOE has also opted to ignore any potential costs to consumers for installs that require more than simply plugging in an appliance. The sum of all these issues would result in negative LCC savings for gas cooking appliances and worse outcomes for others too.

DOE’s model does not factor in any variabilities to installation or equipment costs as in previous rulemakings. The difference between the min or max for TSL 2 and TSL 1 for gas cooktops is just \$6.19 (\$390.68 and \$396.87). Other product classes have the same flaw, with the greatest difference in costs at just \$20.09 (\$1,191.51 and \$1,211.61) for induction cooktops. Equipment costs and installation costs should vary by region, building type, installation site, and within a specific product class by more than a few dollars as determined by DOE. The TSD defined

installation cost as the following, which includes many categories which would have variable costs depending on the region at the very least:

The cost to the consumer of installing the product. The installation cost represents all costs required to install the product other than the marked-up consumer product cost. The installation cost includes labor, overhead, and any miscellaneous materials and parts. Thus, the total installed cost equals the consumer product cost plus the installation cost.⁹²

Regional differences are considered when it comes to operating costs and thus should be part of the installation cost. DOE suggests that equipment installation costs have a range but only used the final “labor only” average in the model, which is inappropriate due to the use of a Monte Carlo simulation with 10,000 trials, and because it ignored any material costs required for installation. Table 8.2.15, Counter Cooking Tops (4 Burner Standard): Baseline Installation Costs, presents a wide range of material (equipment) and labor costs that total between \$462 and \$2,235. The final average for just labor is used in the model, with a simple average of \$147. This average includes gas and electric appliances and is not singled out for specific installations. A gas hookup can involve different steps and safety procedures that can change the average labor cost compared to electric.

Two concerns come out of this table that DOE has disregarded:

- First, this simple average is dated in \$2018 dollars in some places and \$2021 in others and should reflect \$2021 like other costs in the model. In 2021, this cost should be adjusted to \$155 based on the BLS CPI inflation adjustment calculator. If the model references the wrong values, these should be checked with adequate data to show the correct years are being used.
- The second concern is that DOE has ignored critical information for many appliances in this rule by ignoring these material costs. DOE did not properly define why these costs are not included despite referencing them in the description for

⁹² TSD at p. 179.

total installation cost as miscellaneous materials and parts. Either these costs must be included, or they represent the average equipment cost from RS Means 2021.

Table 8.2.16 Countertop Cooking Tops (4 Burner Standard): Baseline Installation Costs

Installation Type	Bare Costs (2021\$)			Including Overhead & Profit (2021\$)		
	Material	Labor	Total	Total	Material*	Labor**
Minimum	\$335	\$57	\$392	\$462	\$369	\$93
Maximum	\$1,850	\$114	\$1,964	\$2,235	\$2,035	\$200
Average (2018\$)						\$147

* Material costs including O&P equal bare costs plus 10% profit.

** DOE derived labor costs including O&P by subtracting material with O&P from total with O&P.

Source: RS Means, *Residential Cost Data, 2021*.

Table 8.2.15 Cooking Range (1 Oven): Baseline Installation Costs

Installation Type	Bare Costs (2021\$)			Including Overhead & Profit (2021\$)		
	Material	Labor	Total	Total	Material*	Labor**
Minimum	\$460	\$46	\$506	\$579	\$506	\$73
Maximum	\$2,300	\$114	\$2,414	\$2,710	\$2,530	\$180
Average (2021\$)						\$127

* Material costs including O&P equal bare costs plus 10% profit.

** DOE derived labor costs including O&P by subtracting material with O&P from total with O&P.

Source: RS Means, *Residential Cost Data, 2021*.

DOE does include material costs with labor costs for the installation of induction appliances, but not for any other appliances. When installing replacement gas appliances, it is typical also to consider replacing old connectors, fittings, and flexible gas pipes within the home. Many gas appliances last for decades, and it is reasonable to assume parts should be replaced. DOE has ignored safety and decided to simplify the analysis to show lower costs to consumers. Table 8.2.17 Induction Cooking Tops reports an average installation cost for higher voltage wiring that is a combination of both material costs and labor for a total cost of \$269. The final cost for induction was \$400.06 which includes a cost of 108.94 for new cookware, a final wiring cost of \$134.5 which was estimated to be the average impact to only 50% of households.

**Table 8.2.17 Induction Cooking Tops (Range outlet, 50 amp-240 volt receptacle):
Incremental Installation Costs**

Residential Wiring	Material	Labor	Total	Total Incl O&P
Type NM cable	\$97.66	\$75.12	\$171.71	\$229.67
Type MC cable	\$133.08	\$79.42	\$212.49	\$275.81
EMT & Wire	\$115.91	\$106.25	\$222.15	\$301.57
Average (2018\$)				\$269

Table 8.2.18 Electric Open (Coil) Element Cooking Tops: Consumer Equipment Prices, Installation Costs, and Total Installed Costs

EL	Equipment Price (2021\$)	Installation Cost (2021\$)	Total Installed Cost (2021\$)
Baseline	\$180.01	\$146.75	\$326.76

Table 8.2.19 Electric Smooth Element Cooking Tops: Consumer Equipment Prices, Installation Costs, and Total Installed Costs

EL	Equipment Price (2021\$)	Installation Cost (2021\$)	Total Installed Cost (2021\$)
Baseline	\$404.89	\$146.75	\$551.64
1	\$408.16	\$146.75	\$554.91
2	\$421.64	\$146.75	\$568.39
3	\$803.78	\$400.06*	\$1,203.85

*\$400.06 for EL3 represents the installation cost for induction type cooking top. This cost includes an additional cost of \$108.94 for change-out of cooking utensils and \$134.50 for the upgrade of electric wiring. DOE estimated the cost of change-out of cooking utensils based on retail data for pots and pans for utensils with a ferromagnetic base.

Table 8.2.20 Gas Cooking Tops: Consumer Equipment Prices, Installation Costs, and Total Installed Costs

EL	Equipment Price (2021\$)	Installation Cost (2021\$)	Total Installed Cost (2021\$)
Baseline	\$229.38	\$146.75	\$376.13
1	\$247.89	\$146.75	\$394.64
2	\$247.89	\$146.75	\$394.64

If these tables, which are poorly labeled, represent equipment costs and not material costs, this is still a significant problem with DOE's model and how they used the data collected. DOE determined equipment costs based on the average cost for a manufacturer to build the baseline cooktop. DOE used \$127.92, defined in TSD Table 8.2.2, as the baseline manufacturer costs for

gas cooking tops. The TSLs are then associated with increased costs due to changes in manufacturer costs relative to the baseline. As defined in TSD Table 8.2.5, the average incremental manufacturer cost was \$12.41 for TSL levels 1 and 2. These costs were then marked up to include profit margins for manufacturers and retailers, resulting in a final cost of \$247.19 for TSL 1 and 2 compared with \$228.72 for the baseline TSL 0 model.

However, these estimated costs are at odds with other available data that represent actual costs in the market. For example, the estimated costs are below even the lowest value reported in the RS Means survey (labeled as material costs by DOE), a survey of products sold in the market. The average material cost in RS Means is also significantly higher than what DOE has estimated for any TSL model, which, if used, would seriously impact the life cycle cost analysis. Note that the material costs reported in RS Means include all appliances (gas and electricity), which, if broken up by specific products, could result in different life-cycle costs for many different appliances in the SNOPR. The method DOE uses to determine equipment costs ignores these real-world prices, either as material costs for installers or as equipment prices to consumers. The minimum material cost reported in the TSD is \$122 higher than the TSL 1 and 2 cost or \$140 higher than the TSL 0 baseline cost.

In either case (TSL 1 or 2), using the RS Means material cost data of \$462 would result in negative LCC savings not only for the average customer but for over 95% of customers. *In other words, using survey data that more accurately represents the average costs in the market would demonstrate that neither proposed standard in this rulemaking would be economically justified.* The average LCC savings using the current \$247.19 equipment cost value is \$21.89. At the 95% cutoff for all 10,000 trials, where customers will see some of the best outcomes from this rule, customers are reported savings of \$97.61. This finding would be negative if DOE uses the material

cost values presented in the TSD. Ranges for LCC outcomes for gas cooktops can be found in the Excel model on the tab “Forecast Cells” L13 and R13 correspond to gas cooktops TSL 2.

Worksheet	Cell	Forecast Name	Units	Count	Mean	Median	Min	Max	5%	25%	50%	75%	95%
LCC & Payback	L11	Total Installed Price PC 3- Level 0	\$	10000	376.12595	376.26637	372.45681	378.18775	372.45681	374.89458	376.26637	377.54494	378.18775
LCC & Payback	L12	Total Installed Price PC 3- Level 1	\$	10000	394.64491	394.79667	390.67954	396.87317	390.67954	393.31413	394.79667	396.17846	396.87317
LCC & Payback	L13	Total Installed Price PC 3- Level 2	\$	10000	394.64491	394.79667	390.67954	396.87317	390.67954	393.31413	394.79667	396.17846	396.87317
LCC & Payback	R11	LCC Saving PC 3- Level 0	\$	10000	0	0	0	0	0	0	0	0	0
LCC & Payback	R12	LCC Saving PC 3- Level 1	\$	10000	3.878018	0	-18.65756	330.40284	-15.22512	-2.357846	0	0	39.786725
LCC & Payback	R13	LCC Saving PC 3- Level 2	\$	10000	21.887624	9.0774876	-18.65756	576.00174	-12.87433	0.3915255	9.0768873	26.501761	97.613397

AGA conducted a simple review of products for sale at Homedepot.com and Lowes.com and only found 1 out of 58 cooktops at Home Depot and 0 out of 69 at Lowes available with a cost under \$247 after taxes. This product also has smaller burner outputs than any of the test models in the SNOBR. The “Empava 24in Italian cooktop” has four burners with outputs of 4,000, 6,500, 10,000, and 12,000 BTU and costs as low as \$245 with tax and as high as \$358 with tax and without including a sale at Lowes. All Empava stoves and range products are assembled in China. This is not a cooktop that is currently being manufactured in the United States at this price point. This online review was conducted on April 4, 2023 in Washington DC’s market.

Another example of inconsistent data use is evident in the following table. The table is taken from the most recent 2022 furnace rule⁹³ Excel model, which includes state-by-state breakdowns for various markups. The cost markups originate from different sources. The furnace rule used Home Depot and Lowes data, while the cooking model used RS Means for retail markup. In the case of this rulemaking, DOE appears to utilize a sales tax that is inconsistent with the assumptions used in the Furnace Rule. The cooking product model used a simple national tax, referenced in the TSD on page 192 of 7.3%, while the national average for the furnace rule was 7.49%.

⁹³ See *Energy Conservation Program: Energy Conservation Standards for Consumer Furnaces*, EERE–2014–BT–STD–0031, RIN 1904–AD20, 87 Fed. Reg. 40,590 (July 7, 2022).

Markups and Sales Taxes by State														
Location ID	States	Mechanical Contractor Markup				General Contractor Markup				Wholesaler/ Distributor Markup		Mobile Home Dealer Reseller Markup		State and Local Sales Tax
		Replacement		New Construction		Residential		Commercial		Baseline	Incremental	Baseline	Incremental	
		Baseline	Incremental	Baseline	Incremental	Baseline	Incremental	Baseline	Incremental					
1	Alabama	1.491	1.294	1.408	1.221	1.439	1.340	1.308	1.230	1.330	1.097	1.434	1.271	8.65%
2	Alaska	1.590	1.381	1.501	1.303	1.423	1.317	1.257	1.120	1.404	1.110	1.374	1.233	1.30%
3	Arizona	1.376	1.198	1.298	1.130	1.423	1.317	1.257	1.179	1.404	1.110	1.380	1.170	7.30%
4	Arkansas	1.376	1.209	1.298	1.141	1.439	1.340	1.258	1.184	1.348	1.112	1.550	1.378	9.20%
5	California	1.530	1.323	1.444	1.249	1.423	1.317	1.257	1.162	1.404	1.110	1.444	1.242	8.70%
6	Colorado	1.432	1.234	1.351	1.164	1.423	1.317	1.257	1.194	1.384	1.115	1.638	1.435	6.35%
7	Connecticut	1.482	1.266	1.399	1.195	1.285	1.166	1.243	1.153	1.388	1.072	1.375	1.198	6.35%
8	Delaware	1.492	1.281	1.409	1.209	1.439	1.340	1.258	1.151	1.355	1.092	1.480	1.272	0.00%
9	District of Columbia	1.441	1.289	1.380	1.217	1.439	1.340	1.258	1.152	1.355	1.092	1.371	1.165	6.00%
10	Florida	1.472	1.262	1.390	1.191	1.439	1.340	1.231	1.144	1.330	1.097	1.487	1.316	7.00%
11	Georgia	1.552	1.361	1.465	1.285	1.439	1.340	1.258	1.187	1.330	1.097	1.421	1.250	7.35%
12	Hawaii	1.517	1.324	1.431	1.250	1.423	1.317	1.257	1.157	1.404	1.110	1.527	1.283	4.45%
13	Idaho	1.419	1.255	1.339	1.185	1.423	1.317	1.257	1.158	1.404	1.110	1.396	1.243	6.00%
14	Illinois	1.466	1.267	1.374	1.196	1.318	1.209	1.261	1.185	1.384	1.115	1.402	1.202	8.60%
15	Indiana	1.418	1.244	1.338	1.174	1.318	1.209	1.337	1.228	1.353	1.097	1.495	1.291	7.00%
16	Iowa	1.389	1.195	1.292	1.128	1.318	1.209	1.266	1.192	1.384	1.115	1.442	1.273	6.95%
17	Kansas	1.408	1.237	1.329	1.167	1.318	1.209	1.266	1.200	1.384	1.115	1.422	1.243	8.40%
18	Kentucky	1.477	1.290	1.394	1.218	1.439	1.340	1.215	1.142	1.353	1.097	1.480	1.280	6.00%
19	Louisiana	1.511	1.302	1.426	1.229	1.439	1.340	1.258	1.170	1.348	1.112	2.016	1.828	9.40%
20	Maine	1.367	1.210	1.290	1.142	1.285	1.166	1.243	1.153	1.388	1.072	1.573	1.405	5.50%
21	Maryland	1.441	1.258	1.360	1.188	1.439	1.340	1.680	1.577	1.355	1.092	1.451	1.281	6.00%
22	Massachusetts	1.431	1.251	1.351	1.181	1.285	1.166	1.243	1.161	1.388	1.072	1.402	1.219	6.25%
23	Michigan	1.530	1.320	1.444	1.246	1.318	1.209	1.266	1.181	1.353	1.097	1.384	1.222	6.00%
24	Minnesota	1.396	1.230	1.318	1.161	1.318	1.209	1.266	1.171	1.384	1.115	1.470	1.293	7.45%
25	Mississippi	1.348	1.185	1.273	1.118	1.439	1.340	1.258	1.150	1.330	1.097	1.444	1.251	7.05%
26	Missouri	1.326	1.155	1.251	1.090	1.318	1.209	1.266	1.162	1.384	1.115	1.319	1.172	7.00%
27	Montana	1.477	1.311	1.394	1.237	1.423	1.317	1.385	1.294	1.404	1.110	1.406	1.246	0.00%
28	Nebraska	1.463	1.287	1.381	1.214	1.318	1.209	1.172	1.097	1.384	1.115	1.503	1.321	6.10%
29	Nevada	1.421	1.231	1.341	1.162	1.423	1.317	1.359	1.267	1.404	1.110	1.508	1.344	8.25%
30	New Hampshire	1.411	1.216	1.332	1.147	1.285	1.166	1.303	1.193	1.388	1.072	1.359	1.199	0.00%
31	New Jersey	1.537	1.335	1.451	1.260	1.285	1.166	1.243	1.152	1.355	1.092	1.525	1.343	6.60%
32	New Mexico	1.404	1.221	1.325	1.153	1.423	1.317	1.110	1.030	1.348	1.112	1.550	1.384	7.05%
33	New York	1.496	1.310	1.412	1.236	1.285	1.166	1.229	1.131	1.388	1.072	1.448	1.280	8.45%
34	North Carolina	1.469	1.270	1.387	1.198	1.439	1.340	1.258	1.188	1.330	1.097	1.476	1.312	7.00%
35	North Dakota	1.383	1.193	1.286	1.126	1.318	1.209	1.266	1.170	1.384	1.115	1.643	1.421	6.25%
36	Ohio	1.481	1.258	1.379	1.187	1.318	1.209	1.249	1.164	1.353	1.097	1.428	1.257	7.20%
37	Oklahoma	1.451	1.233	1.369	1.164	1.439	1.340	1.173	1.097	1.348	1.112	1.519	1.328	8.55%
38	Oregon	1.539	1.326	1.453	1.252	1.423	1.317	1.131	1.057	1.404	1.110	1.506	1.294	0.00%
39	Pennsylvania	1.507	1.287	1.422	1.214	1.285	1.166	1.257	1.162	1.354	1.095	1.523	1.339	6.35%
40	Rhode Island	1.399	1.212	1.320	1.144	1.285	1.166	1.243	1.172	1.388	1.072	1.416	1.248	7.00%
41	South Carolina	1.513	1.307	1.427	1.234	1.439	1.340	1.259	1.183	1.330	1.097	1.518	1.344	7.45%
42	South Dakota	1.393	1.214	1.315	1.146	1.318	1.209	1.266	1.192	1.384	1.115	1.388	1.190	6.00%
43	Tennessee	1.487	1.232	1.384	1.162	1.439	1.340	1.185	1.107	1.330	1.097	1.492	1.296	9.50%
44	Texas	1.475	1.277	1.392	1.205	1.439	1.340	1.208	1.129	1.348	1.112	1.541	1.357	7.95%
45	Utah	1.386	1.226	1.308	1.157	1.423	1.317	1.741	1.657	1.404	1.110	1.530	1.349	7.15%
46	Vermont	1.421	1.234	1.341	1.165	1.285	1.166	1.243	1.128	1.388	1.072	1.339	1.187	6.10%
47	Virginia	1.501	1.303	1.417	1.230	1.439	1.340	1.305	1.238	1.355	1.092	1.501	1.321	5.00%
48	Washington	1.371	1.168	1.294	1.102	1.423	1.317	1.182	1.100	1.404	1.110	1.526	1.307	9.25%
49	West Virginia	1.484	1.263	1.401	1.192	1.439	1.340	1.258	1.150	1.353	1.097	1.483	1.265	6.15%
50	Wisconsin	1.435	1.257	1.354	1.186	1.318	1.209	1.278	1.191	1.384	1.115	1.345	1.187	5.45%
51	Wyoming	1.397	1.208	1.319	1.140	1.423	1.317	1.257	1.152	1.384	1.115	1.374	1.156	5.45%
	United States	1.471	1.274	1.388	1.203	1.387	1.281	1.260	1.174	1.362	1.101	1.472	1.289	7.49%

Lastly, the data used by DOE for product and installation costs do not look at the types of gas stoves tested in the SNOPR and TSD. DOE only includes the installation of a 30-inch, free-standing cooking range with four burners. The testing of 21 stoves, with only one model allegedly passing, includes a wide range of cooktops with up to 6 burners and wider footprints. The equipment cost should include this range of features.

Table 1.2.1 Summary of National Economic Benefits and Costs of Proposed Energy Conservation Standards for Consumer Conventional Cooking Products (Trial Standard Level (TSL) 2)

	<i>billion 2021\$</i>
3% discount rate	
Consumer Operating Cost Savings	2.28
Climate Benefits*	1.17
Health Benefits**	1.63
Total Benefits†	5.08
Consumer Incremental Product Costs‡	0.56
Net Benefits	4.51
7% discount rate	
Consumer Operating Cost Savings	0.95
Climate Benefits* (3% discount rate)	1.17
Health Benefits**	0.61
Total Benefits†	2.74
Consumer Incremental Product Costs‡	0.31
Net Benefits	2.43

DOE’s analysis, which states that 96% of the market will be impacted by the rule starting in 2027, assumes that this has zero impact on the baseline forecast for sales. TSL 2 standards would remove many popular features in gas cooktops such as cast-iron grates and high-output power burners. A change in features would have some level of impact on consumer demand. If the features change, and subsequently consumer demand changes, customers may switch away from gas cooktops at potentially great economic expense because there are insufficient gas options available to fit their current needs. Additional expenses to electrify a natural gas kitchen were not reviewed in the analysis conducted by DOE, only the cost to replace or hook up a new cooktop. Rewiring a kitchen to support an electric stove with higher-output cooking features can cost households thousands of dollars in additional expenses.

DOE has not considered a possible shortfall in available gas stoves to replace older units. If there are not sufficient units available for sale in 2027 to meet the new standard, and millions of gas stoves are still being demanded, the lack of stoves from either gas or electric could cause a

shortage of appliances on the market. This could increase prices on those units available, reduce short-term employment opportunities for those installing stoves, and cause customers to electrify simply because a suitable option is unavailable.

A rule that requires all equipment to conform to TSL 2 leaves only a small portion of the current market available (4% or 1 out of 21 test models) to determine what a cooktop would cost on average in 2027. Everything Gas cooking products would need to be retrofitted or redesigned to meet the new specification. DOE has considered the design costs of redesigning stoves to meet the TSL but does not consider other costs to manufacturers and consumers if the design of the product has to completely change to allow for features that keep a product competitive. The equipment cost difference between a TSL 0 and TSL 2 cooktop is just \$18.52, or a total of \$247.61. This cost estimate cannot account for the shift in product design required to meet the consumer preferences that 96% of the market meets today, in just four years. No other appliances class at TSL 2 has a positive LCC saving within DOE's model except gas cooktops, which due to the unknown costs of meeting the standard may also not have a positive LCC saving.

4. DOE Technologies Screening Analysis for Gas Cooking Tops is Inconsistent and Lack Validity

DOE's technologies screening analysis is inconsistent and inadequate for use as the primary factor determining the minimum efficiency level for gas cooking tops. At a minimum, DOE should reevaluate the suggested efficiency improvements to attain the proposed minimum efficiency level for gas cooking tops. Specifically, DOE states that:

In the December 2020 NOPD, DOE further noted that all gas cooking tops on the market, including those with an optimized burner and grate design, have been certified to applicable safety standards. 85 FR 80982, 81004. However, DOE recognized that the estimates for the energy savings associated with optimized burner and grate design may vary depending on the test procedure, and thus screened out this technology option from further analysis of gas cooking tops in

the December 2020 NOPD. *Id.* DOE stated that it would reevaluate the energy savings associated with this technology option if it considered performance standards in a future rulemaking.⁹⁴

On that same page of the SNOPR, DOE states that:

As discussed in section III.C of this document, DOE is considering performance standards for cooking tops, based on new appendix I1. Therefore, as discussed in the December 2020 NOPD, DOE is reevaluating the energy savings associated with optimized burner and grate design. As discussed in chapter 5 of the TSD for this SNOPR, DOE testing has confirmed that optimizing the burner and grate system can lead to reduced energy consumption, as measured under appendix I1. Therefore, DOE is no longer screening out optimized burner and grate design from its analysis.⁹⁵

DOE then goes on to list in TABLE IV.12—GAS COOKING TOP EFFICIENCY LEVELS Level Design options IAEC (kBtu/year) that Level 1 (1440 IAEC) can be met with “Optimized Burner/Improved Grates (Achievable with 4 or more HIR burners and continuous cast-iron grates.”⁹⁶

Technically, DOE’s assumption is based on limited testing of an efficiency test procedure that is currently subject to a petition by industry stakeholders seeking revisions to the procedure. As such, it is not an adequate basis for establishing a minimum requirement that will make it illegal to manufacture many popular types of gas cooking tops and cannot be relied on as justification for such a requirement. First, it is unclear exactly what is included in the design feature, “Optimized Burner/Improved Grates” that the DOE has determined improves the products efficiency. Gas cooking top design is a complex engineering process that requires many considerations to help ensure the consumer has a product that meets all safety standards, meets it's required purpose (to cook food), is reliable, long lasting, and easy to maintain and clean.

⁹⁴ SNOPR, 88 Fed. Reg. at 6,842.

⁹⁵ *Id.*

⁹⁶ SNOPR 88 Fed. Reg. at 6,846.

Burner design is critical to accommodate the wide variety of cooking processes, cooking utensils, and cooking products. Suggestions that realigning gas burners or moving the gas burners closer to the cooking utensils as “optimizing burners” are fraught with problems, including concerns with the impact on the combustion process, creating hot spots on cooking utensils and electronic ignition systems, cleaning, and addressing changes in fuel gas supply for example, switching from natural gas to propane. At a minimum, these engineering application issues for optimizing burners must be clarified and identified. Much more evaluation must be documented before they can be verified as “efficiency improvements.” DOE requires manufacturers to establish a comprehensive sampling plan to demonstrate compliance with the efficiency level of gas cooking tops. DOE must at least perform much more comprehensive testing on gas cooking tops to ensure the results that the test procedure is repeatable and reliable to confirm their basis as a required federal minimum efficiency level.

5. DOE’s Proposal will Increase Energy Use

The result of DOE’s proposal will be an increase in energy use. EPCA requires that DOE consider “the savings in operating costs throughout the estimated average life of the covered product in the type (or class) compared to any increase in the price of, or in the initial charges for, or maintenance expenses of, the covered products which are likely to result from the imposition of the standard.”⁹⁷ In short, this provision directs DOE to compare savings in operating costs throughout the estimated average life of a category of products, *i.e.*, natural gas cooktops.

Furthermore, EPCA states that the comparison includes any increase in the price of, or in the initial charges for, or maintenance expenses of a category of products. EPCA does not direct or permit the comparison of savings or expenses for a particular category of products with the

⁹⁷ 42 U.S.C. § 6295(o)(2)(B)(II).

savings or expenses of a different category of products. In other words, the same category of products must be compared, *i.e.*, natural gas appliances are compared to natural gas appliances. EPCA does not envision DOE comparing an electric appliance versus a natural gas furnace. Such an analysis contradicts EPCA and what must be considered in determining whether standards are economically justified.⁹⁸

While DOE cannot compare gas vs. electric appliances, it should be aware that the ultimate result of the Proposed Rule will be to increase energy use, which is an inappropriate result for an energy efficiency standard. In order to make an informed decision, DOE should convert to a common set of units the energy consumption of gas and electric cooktops and account for the source and site energy use. DOE should determine if the amount of energy needed to operate nearly all electric cooktops (smooth and coil) is more than the energy used by a TSL 1 gas cooktop on a site basis. Such an analysis would illustrate that on a total source basis, gas cooktops consume less energy than electric cooktops. In short, DOE's elimination of gas products will cause an increase in overall energy consumption. This is due to the fact that the elimination of certain cooktops from the market will likely result in the gas appliances being replaced with electric resistance appliances resulting in the consumption of more energy.

DOE is required to demonstrate that the proposed standard would save energy and DOE has not attempted to do so. In short, DOE should recognize that the Proposed Rule would increase overall energy consumption, which runs counter to the objectives of an energy conservation standard. Therefore, the Department should not issue a final rule claiming that such an action will save energy when it increases energy consumption.

⁹⁸ See 42 U.S.C. § 6295(o)(2)(B)(i)(I).

D. DOE Relies on a Limited and Biased Selection of Literature Regarding Health Effects in the SNOPR

DOE asserts, among other things, that reduced in-home gas combustion may deliver additional health benefits as support for its proposal.⁹⁹ Such assertions are inappropriate in this proceeding and not supported by the record. DOE inappropriately claims that additional pollutants associated with gas cooking products exist but are not quantified in this SNOPR analysis that may potentially contribute to negative health impacts.¹⁰⁰ Such assertions and claims are outside the scope of this proceeding, and it is not appropriate for DOE to raise these matters in this standard process.

Furthermore, DOE has relied on a limited and biased selection of the study literature to make a presumption that using gas cooking applications contributes to negative health impacts.

Among these, DOE cites:

- DOE cites Logue, *et al.*, (2014) published in *Environmental Health Perspectives*.¹⁰¹ The Logue, *et al.*, study presented the results of a simulation model. While that fact alone does not invalidate the analysis, the study's applicability to the broad statement about indoor pollution as claimed is limited. The study simulation relied upon modeling assumptions concerning emission source rates, the mass balance approach, occupancy patterns, cooking appliance operation patterns, and occupant response to cooking effluent and combustion productions. Behavior-related variables associated with residential cooking appear to be lacking in the model. This is a significant omission since the association of combustion product accumulation from cooking appliances and kitchen temperature rise has long been the basis for limiting combustion emissions. Finally, the emission factors assumed for cooking appliances, the initial inputs to modeling pollutant exposures, appear to come from a Lawrence Berkeley National Laboratory ("LBNL") study of natural gas combustion emissions associated with imported LNG, which would produce different emission characteristics. Also, it is unclear from the documentation of the modeling study or the previous LBNL study whether the emission factors used are based upon peak concentrations of pollutants, time-averaged concentrations, and a hybrid of peak and time-averaged measurements.

⁹⁹ SNOPR, 88 Fed. Reg. at 6,863.

¹⁰⁰ *Id.*

¹⁰¹ SNOPR, 88 Fed. Reg. at 6,863, n.87.

- An October 2022 study published in the *Environmental Science & Technology* journal titled “Composition, Emissions, and Air Quality Impacts of Hazardous Air Pollutants in Unburned Natural Gas from Residential Stoves in California” (Lebel, *et al.*, Oct. 2022).¹⁰² In that study, the authors used an extreme, beyond “worst case” scenario to model potential exceedances of benzene in atypical circumstances. The assumptions used were so conservative that the modeled scenarios would be very unlikely to occur in the real world. Furthermore, if these scenarios did occur, the odorants in the natural gas would alert the building occupants before the elevated benzene levels were encountered (based on the authors' own numbers in a prior study). Further investigation of the underlying methods, assumptions, and results is required to develop a full and fair exposition of the pertinent facts.¹⁰³
- A Rocky Mountain Institute (“RMI”) report titled *Health Effects from Gas Stove Pollution* is also cited by DOE.¹⁰⁴ Some of the findings in the report are not justified based on the report’s supporting statements and citations. The report relies upon a biased selection of the literature relevant to assessing the contribution of gas cooking appliances to issues related to indoor air quality. The report’s conclusions and recommendations are not sufficiently substantiated for making policy or consumer decisions about energy choices. Most importantly, the RMI paper does not represent a systematic review of all the health-related literature associated with indoor air quality or potential contributions from the use of gas cooking appliances. In many instances, its claims are at odds with the relevant consensus public health literature. A complete examination of the claims in the RMI report is beyond the scope of the comments submitted to DOE here. However, DOE should avoid uncritical deference to select literature reviews conducted by organizations that are actively promoting policy-driven electrification of homes and buildings and that use unsupported arguments related to indoor air quality and gas cooking as a basis for justifying the removal of the option of natural gas for homes and businesses.

DOE has also ignored other studies on gas combustion contributions to indoor air quality and health impacts. As one example, according to the study “Cooking Fuels and Prevalence of Asthma: A Global Analysis of Phase Three of the International Study of Asthma and Allergies in Childhood,” which analyzed 512,707 primary and secondary school children from 108 centers in

¹⁰² SNO PR, 88 Fed. Reg. at 6,863, n.88.

¹⁰³ See also AGA, Review and Comment on “Composition, Emissions, and Air Quality Impacts of Hazardous Air Pollutants in Unburned Natural Gas from Residential Stoves in California,” 2022 (Oct. 26, 2022), appended as Attachment D. Furthermore, appended as Attachment E, is AGA, Review and Comment on “Methane and NOx Emissions from Natural Gas Stoves, Cooktops, and Ovens in Residential Homes,” *Environmental Science & Technology*, 2022 (April 4, 2022) which responds to the literature cited by DOE in the SNO PR at n.86. See SNO PR, 88 Fed. Reg. at 6,863, n.86.

¹⁰⁴ SNO PR, 88 Fed. Reg. at 6,863, n.89.

47 countries, there is “no evidence of an association between the use of gas as a cooking fuel and either asthma symptoms or asthma diagnosis.”

While combustion emissions from gas ranges, ovens, and cooktops can contribute to some degree to emissions of recognized pollutants, there are no documented risks to respiratory health from natural gas stoves from the regulatory and advisory agencies and organizations responsible for protecting residential consumer health and safety. The Federal Interagency Committee on Indoor Air Quality (“CIAQ”), which is comprised of two dozen federal agencies led by the U.S. Environmental Protection Agency (“EPA”), routinely addresses indoor air quality issues of public importance. The CIAQ has not identified natural gas cooking emissions as an important issue concerning asthma or respiratory illness. Furthermore, the U.S. Consumer Product Safety Commission and EPA do not present gas ranges as a significant contributor to adverse air quality or health hazard in their technical or public information literature, guidance, or requirements.

Finally, if health impacts were in scope, DOE would need to do a full analysis of the cooking process with natural gas and evaluate the cooking process and emissions unrelated to the fuel used. A recent report by Catalyst Environmental Solutions conducted a detailed literature review relevant to the question of what cooking emissions are the main driver of health risks. The report found that “the air emissions from cooking food has been reported to impact residential indoor air quality. The extent to which indoor air quality is impacted is highly dependent on the types of food being cooked and the cooking conditions such as time, temperature, space configuration, and ventilation. It is far less dependent on the heat source for the cooking, either natural gas or electricity.” It further found “[t]he type of appliance (natural gas or electric) used to cook food indoors is not a significant determinant of residential indoor air quality. While CO and NO_x emissions and post-combustion formation of NO₂ are unique to gas ranges due to the

combustion of natural gas, their concentrations in residential indoor air do not pose a health risk. Likewise, the trace elements in unburned natural gas have not been demonstrated to be at concentrations that would pose human health risk.”¹⁰⁵

E. The Proposed Rule Would Negatively Impact Home Cooks and Communities that Prefer Certain Foods

As noted herein, DOE seeks to eliminate features that permit home cooks and home-based businesses to make certain foods. The features being banned by DOE would impact not only regular cooks but also those that use gas stoves as helpful tools for a home/cottage business and many aspiring entrepreneurs looking to explore ideas on a stove with more features. DOE acknowledges that its proposal will negatively impact cooks that sear or stir-fry foods¹⁰⁶. Still, the whole reality is that the Proposed Rule would limit the ability to cook a family meal, a holiday dinner, or food that is part of a home-based business, such as catering. DOE’s proposal says to cooks, you can do one stir-fry dish or have one large pot of boiling water, but not both. Also, under DOE’s proposal, cooks would no longer be able to shift a heavy pot of hot water or a large pan without lifting it because a continuous cast iron grate would no longer be an option.

It appears that DOE’s proposal would limit the ability of families and home-based businesses to make the following dishes effectively, to name a few:

- Seared meats and vegetables
- A stir-fry
- Canned fruits or vegetables
- Beer
- Large amounts of boiled water for pasta or rice
- A clambake or crab/crawfish boil
- Paella

¹⁰⁵ Catalyst Environmental Solutions, The Effects of Cooking on Residential Indoor Air Quality: A Critical Review of the Literature with an Emphasis on the Use of Natural Gas Appliances, available at https://www.calrest.org/sites/main/files/file-attachments/analysis_effects_of_cooking_on_indoor_air_quality_3.2.2023.pdf (last visited April 17, 2023).

¹⁰⁶ SNOPR, 88 Fed. Reg. at 6,845.

DOE should conduct a full analysis of its impact on the various communities in the United States whose cooking methods and food preferences would be negatively impacted by the Proposed Rule. In short, DOE needs to fully examine and explain whether Grandma or Grandpa will still be able to make Sunday dinner for the family in a traditional manner or whether DOE is eliminating the ability of certain groups to make traditional foods for their families. Furthermore, DOE should analyze the Proposed Rule's impact on home-based businesses. Such an analysis is critical because DOE is proposing to eliminate features that consumers both desire and need in a cooktop.

F. DOE Should Fully Assess the Impacts of the Proposed Rule on Natural Gas Distribution Utilities

The Process Rule requires DOE to conduct a utility impact analysis in its standards rulemakings.¹⁰⁷ Specifically, the Process Rule requires DOE's utility impact analysis to "include estimated marginal impacts on electric and gas utility costs and revenues."¹⁰⁸ In the SNO PR, DOE states that while it did conduct some analysis related to electric utilities, it did even less for natural gas utilities.¹⁰⁹ DOE states that "the impact to natural gas utility sales is equivalent to the natural gas saved by the proposed standard."¹¹⁰ This is insufficient.

DOE should adhere to the Process Rule and conduct a complete impact analysis that quantifies and evaluates the marginal impacts to gas utility costs and revenues of a reduction in gas deliveries due to the Proposed Rule. In addition to its analysis of impacts to gas distribution utilities, DOE should analyze whether the imposition of new standards could have adverse impacts

¹⁰⁷ See 10 C.F.R. part 430, subpart C, App. A § 6(e)(4)(iv) (Factors to be considered in selecting a proposed standard include an "analysis of utility impacts will include estimated marginal impacts on electric and gas utility costs and revenues.").

¹⁰⁸ *Id.*

¹⁰⁹ SNO PR, 88 Fed. Reg. at 6,869; TSD Chap. 15.

¹¹⁰ SNO PR, 88 Fed. Reg. at 6,869.

on retail natural gas ratepayers. Because DOE acknowledges that its proposed efficiency standards threaten to drive many consumers to shift from natural gas heat to electric for cooking,¹¹¹ the Department should evaluate whether the loss of demand for natural gas local distribution companies could lead to higher rates on remaining consumers to cover fixed distribution costs. DOE should consider and understand the nature and magnitude of these effects before it finalizes any revised cooktop efficiency standards. To the extent it believes it does not have to follow the Process Rule's requirements with regard to utility impacts, it must explain why deviation from the Process Rule is necessary (or at least appropriate) and allow stakeholders to comment on that explanation.

G. DOE Should Issue a Further Notice for Comment Before a Final Rule

In the SNOPR, in addition to seeking comment on the proposal DOE asks for stakeholder input on 42 questions. These 42 questions are akin to a request for information, and not anything that is ready for a final rule that could impact customers. The 42 questions highlight the fact that DOE is still at the preliminary phase of setting standards for cooktops. Furthermore, in the SNOPR, DOE states that it is continuing to explore additional analysis that could relate to a final rule.¹¹² Since DOE is at a preliminary phase and seeks comments on a new proposal and information in response to multiple questions, it is clear that DOE cannot proceed to a final rule without the issuance of further notice seeking additional comments from stakeholders. Notice and time for comment by stakeholders could result in an improved rule and is required due to DOE's obligation to follow an informed decision-making process. DOE should not improperly deny itself the opportunity to receive useful data or analysis from interested parties.

¹¹¹ *Id.* at 6,858.

¹¹² *See e.g.*, SNOPR, 88 Fed. Reg. at 6,858.

H. DOE has a Duty to Respond to these Comments

In these comments, AGA has raised a number of issues regarding DOE's analysis and assumptions, legal errors, and other critical flaws with the Proposed Rule. As noted above, EPCA requires DOE to support the Proposed Rule with substantial evidence. Where, as here, AGA has raised concerns about crucial parts of DOE's proposal, the Department must respond to those concerns with "a cogent and reasoned response"¹¹³ that itself is supported by substantial evidence. Several of the concerns raised herein have permeated multiple efforts by DOE to address efficiency standards including the Department's modeling assumptions, approach to consumer choice and economics, assumptions regarding installation costs, and others. Failure to provide a reasoned, evidence-based response to these comments will render any final version of the Proposed Rule vulnerable to challenge.

VI. CONCLUSION

The American Gas Association respectfully requests that the Department of Energy consider these comments in this proceeding and rescind the Proposed Rule for the reasons stated herein. If you have any questions regarding this submission, please do not hesitate to contact the undersigned.

Respectfully submitted,



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¹¹³ *Am. Pub. Gas Ass'n v DOE*, 22 F. 4th 1018, 1028.