



April 17, 2023

Dr. Carl Shapiro  
Appliance and Equipment Standards Program  
U.S. Department of Energy  
Building Technologies Office  
950 L'Enfant Plaza SW, 6th Floor  
Washington, DC 20024

Re: Energy Conservation Program: Energy Conservation Standards for Consumer Conventional Cooking Products, Docket Number EERE–2014–BT–STD–0005

Dear Dr. Shapiro:

Western Energy Alliance is concerned that the Supplemental Notice of Proposed Rulemaking (SNOPR) Energy Conservation Standards for Consumer Conventional Cooking Products is intended to establish energy conservation standards for natural gas stoves at a level that is akin to an ultimate ban on their use. In fact, with only 4% of commercially available gas stoves able to meet the proposed standard and the individual gas stove owner's portion of the supposed \$200.3 million in annual benefits a measly \$1.51, the proposed rule does not pass DOE's statutory requirements under the Energy Policy and Conservation Act (EPCA). Establishing the standard to the level proposed by DOE in this rule is neither technologically feasible nor economically justified. We cannot help but conclude that the rule is intended to ban new gas stoves and compel a transition to electric under the guise of energy conservation standards.

Western Energy Alliance represents 200 companies engaged in all aspects of environmentally responsible exploration and production of oil and natural gas across the West. The Alliance represents independents, the majority of which are small businesses with an average of fourteen employees.

As producers, we are puzzled by DOE's efforts to drive electrification of cooking products when of course, the majority of U.S. electricity is generated by natural gas (38%) and coal (22%).<sup>1</sup> Further, gas used at the burner tip is more efficient than that used to generate electricity, as only 8% is lost in processing and distribution with no conversion/generation process necessary. On the other hand, converting natural gas into electricity results in 62% lost in processing, generation, and transmission, the most loss being in the generation process.<sup>2</sup> Other power sources experience similar processing and line loss inefficiencies. We would think that DOE would recognize the inherent efficiency of natural gas stoves and not attempt to discourage or even ban their use.

Further DOE should consider issues of grid reliability and the fact that this rule is not isolated from other major policy efforts to drive greater use of electricity. In the drive to electrify everything, including transportation and household heating and cooking, the administration seems to ignore the fact that the electric grid would have to be much larger. Reaching President Biden's vision of a net-zero economy by

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<sup>1</sup> [Energy Information Administration data on electricity generation](#), 2021.

<sup>2</sup> [2023 Playbook](#), American Gas Association, 2023.

2050, itself impossible with today's technologies, would require a 480% increase in the nation's electricity generation capacity.<sup>3</sup> DOE seems to be ignoring the long-term implications of the rule:

“Reduced electricity demand due to energy conservation standards is also likely to reduce the cost of maintaining the reliability of the electricity system, particularly during peak-load periods.” (SNOPR p. 6887)

While saving a small amount of energy in the short-term, the proposed rule adds to increased electricity demand as it compels a switch from gas to electric stoves. We cannot see from the information provided in this proposed rule how DOE can support the claim that the small energy savings from this rule would have a positive effect on the reliability of the grid.

Further, in the rush to electrify everything, grid stability is becoming a serious concern. DOE seems to be ignoring a major product feature of gas stoves: their ability to operate when electricity is unavailable. As more demand is placed on the grid, particularly as more electric vehicles are sold, the chances of black- and brown-outs increases. Many have sounded the alarm on grid stability issues, as policy-driven retirements of fossil-fuel plants are exceeding the capacity of renewable sources and the addition of more intermittent renewable sources contributes to grid instability.<sup>4</sup> As with natural gas home heating, natural gas stoves guard against the impact on the individual citizen by enabling continued use when the power grid is unavailable.

### Product Features

“Also, the Secretary may not prescribe an amended or new standard if 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.” (42 U.S.C. 6295(o)(4)).

We find it hard to see how this rule does not run afoul of this EPCA standard. It is well known that natural gas cooking provides a range of characteristics and features which electric stoves lack. While the best chefs in the world wouldn't fathom cooking on an electric range, the lowly home cook benefits from those same features as well, which include: 1) the ability to control temperature precisely; 2) better distribution of heat for even cooking, which is especially important for complex recipes; 3) efficiency, as it takes about three times as much energy to produce and deliver the electricity to the stove compared to gas at the burner tip; 4) instant heat and higher temperatures, resulting in shorter cook times; and 5) the ability to cook during an electricity outage. The future availability of high input rate burners is especially at risk with the rule, which would serve to limit the number of burners on gas

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<sup>3</sup> [LCRI Net-Zero 2050: U.S. Economy-Wide Deep Decarbonization Scenario Analysis](#), Low-Carbon Resources Initiative, September 19, 2022.

<sup>4</sup> See for example [Energy Transition in PJM: Resource Retirements, Replacements & Risks](#), PJM, February 24, 2024; which details how the reserve margin, as a measure of spare versus peak demand power, is expected to fall to just 15% by 2030 in the PJM, as an example, as more fossil-fuel plants are retired early by government policy while renewables struggle to match the lost capacity.

cook tops and the maximum heat. Reducing their availability and heat doesn't just run afoul of EPCA requirements but also eliminates common cooking styles such as stir frying and searing.

“After DOE has determined that particular technology options are technologically feasible, it further evaluates each technology option in light of the following additional screening criteria: (1) practicability to manufacture, install, and service; (2) adverse impacts on product utility or availability; (3) adverse impacts on health or safety, and (4) unique-pathway proprietary technologies. Sections 6(b)(3)(ii)–(v) and 7(b)(2)–(5) of appendix A.” (SNOPR p. 6832)

Besides failing on (2) product utility, DOE has shown in particular that the technology options are not feasible nor available in the marketplace. The standards proposed in the rule would force gas stoves out of the market. Table 10.3.2 on page 10-4 of the December 2022 Technical Support Document (TSD) for the proposed rule shows that only 4% of the market meets the proposed levels of 1204 BTU, the “max tech” level, per DOE at the January 31, 2023 public webinar. DOE’s testing concluded that 20 out of 21 gas cooktops will not meet the proposed standard levels, as shown in TSD Table 5.5.2. Table 5.5.6 shows that only one unit type, #2, passed the test for gas ovens. We are having difficulty confirming that the one model remains on the market, meaning that potentially not a single cooktop in DOE’s test sample that met the efficiency standard remains on the market.

DOE has issued conflicting information about the standard. It says in the media and in the notice of data availability that 50% of the market is able to meet the proposed efficiency level. Yet DOE added three gas models that did not initially meet their screening criteria because they lack consumer features DOE said were important to maintain, i.e., continuous cast iron grates along with at least one high input rate burner. Adding models in that do not contain necessary features in order to boost the supposed market availability rate is a shell game that cannot be played to get around EPCA’s requirement that energy efficiency standards must not be used to render products unavailable in the marketplace.

Further DOE used two different methodologies to calculate the current models that could comply with their proposed levels. In the SNOPR, it used the percentage of the test sample that would comply with the proposed level and assumed the sample was representative of the market to say that 4% of gas cooktops could meet the proposed standard. Further, 4% of gas cooktops equates to just one single model. In the Notification of Data Availability (NODA), DOE added the three new units, looked at websites to find products that looked similar and assumed they would also meet the proposed standard in order to generate the higher percentage. The sleight of hand cannot hide the fact that the rule would take away consumer choice and render gas stoves and all their features largely unavailable in the market.

### **Failure to Meet EPCA Savings Standard**

EPCA is clear that appliance energy conservation standards apply to “the quantity of energy directly consumed by a consumer product at point of use”. 42 U.S.C. 6291(4). The energy and cost savings to the consumer is the relevant savings that must be met by the rule, not macro-level savings:

“Pursuant to EPCA, any new or amended energy conservation standard must be designed to achieve the maximum improvement in energy efficiency that DOE determines is technologically

feasible and economically justified. (42 U.S.C. 6295(o)(2)(A)). Furthermore the new or amended standard must result in a significant conservation of energy.” (42 U.S.C. 6295(o)(3)(B)).

Here the rule fails. At the level proposed for gas cooktops, which is the most stringent level DOE analyzes and therefore, has the most potential savings, consumers will save just \$1.51 per year. Over the life of the product, estimated at 14.5 years (Table 8C.2.1), a consumer would save a measly \$21.89 (TSD Table 8.3.6). Even for a low-income family struggling with today’s high inflation, that cost savings is negligible.

But it gets worse. Eighteen percent of consumers would actually experience a net cost of owning a new gas product that meets the proposed standards. Contrast that with the proposed standards for electric smooth cooking tops, for which 0% of consumers would experience a net cost to own a new product meeting the proposed standard. However even for the electric smooth category, the consumer saves an even less impressive \$13.29 (TSD Table 8.3.4) over the lifetime of the product (16.8 years per Table 8C.2.1), or an insignificant \$0.79 per year.

Since EPCA requires the rule to be justified based on the energy and cost savings to the consumer, the rule cannot be rescued using a macro lens. DOE claims a savings of .46 quadrillion British thermal units (quads) over 30 years. That equates to .0153 quads per year, an insignificant amount given that total residential energy use is currently 20.78 quads. The savings from the rule would amount to .07% of annual residential energy use in 2027 when the savings are projected to start.<sup>5</sup> That percentage would of course diminish over the years as American energy consumption increases. EIA only projects to the year 2050 and not the full 30 years that DOE projects energy savings for, but energy consumption is projected to rise to 22.36 quads by 2050.

Even though the macro level cannot be legitimately used to rescue the rule from insignificance per EPCA standards, DOE attempts to justify it by claiming that .46 quads over 30 years equates to the electricity use of 19 million households in one year. The comparison of 30 years of energy savings to one year of consumption is disingenuous and an attempt again to rescue the purported savings from irrelevance. DOE should eliminate this misleading comparison and instead equate the annual energy savings to annual electricity use.

In the absence of a reference for the 19 million household energy consumption equivalent that DOE asserts in the proposed rule, we turned to EIA data showing there are 123.53 million households in the United States<sup>6</sup> and total 2022 energy consumption of 21.19 quads, which equates to consumption of 1.682<sup>-7</sup> quads per household. Therefore, .0153 quads saved annually by the rule equates to an energy savings for 89,473 households annually, or .07% of households annually. Even were it legitimate to justify the rule at the macro-level, the energy savings are underwhelming.

DOE should do the proper comparison of the energy savings from the rule to total household energy use both on the same annual basis in order to present a legitimate apples-to-apples comparison. At the bare minimum, DOE should provide a reference for the 19 million household energy comparison.

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<sup>5</sup> [Annual Energy Outlook 2023: Table 2. Energy Consumption by Sector and Source](#), EIA, March 16, 2023.

<sup>6</sup> [2020 Residential Energy Consumption Survey](#), EIA, March 29, 2023.

These insignificant cost and energy savings cannot be saved by the quantification of climate change benefits either, addressed in the next section, since “the need to confront the global climate crisis” is not contemplated by EPCA and therefore, not a legitimate subject for the proposed rule to address. Nevertheless, the GHG emissions saved by the rule is underwhelming. DOE estimates the rule will save 21.9 million metric tons of CO<sub>2</sub> equivalents (MMt-CO<sub>2</sub>e) (p. 6821) over 30 years, or 0.73 MMt-CO<sub>2</sub>e annually. EPA’s GHG inventory estimates total U.S. emissions at 6,347.7 MMt-CO<sub>2</sub>e annually. Thus the yearly savings from the proposed rule are equivalent to just 0.001% of U.S. GHGs. Such a small savings justifies handcuffing neither America’s great culinary arts nor home cooking, both made possible by gas stoves.

### **Social Cost of Greenhouse Gases**

Even more tenuous is the use of Social Cost of Greenhouse Gases (SC-GHG) estimates to justify the rule. The estimate of the SC-GHG is a major policy concern fraught with much econometric, socio-economic, and scientific complexity. It is a matter of major political import and value judgment that is wholly inappropriate to include within this or any rule until such time as the estimates have been subjected to a rigorous Administrative Procedure Act (APA) process complete with public notice and comment.

In the preamble to the proposed rule DOE did not explain the legal basis for using a SC-GHG estimate. This lack of explanation or even rational basis is the hallmark of arbitrary and capricious federal rulemaking, in violation of the APA. Further, application of SC-GHG estimates to this and other rulemakings could run afoul of the Major Questions Doctrine, particularly should the rule be used to eliminate the use of gas stoves in the name of reducing GHG emissions and as part of the comprehensive effort by the Biden Administration towards eliminating natural gas development and usage in the United States. As the Supreme Court made clear just last year in *West Virginia v. EPA* 142 S. Ct. 2587, the court “expect[s] Congress to speak clearly when authorizing an agency to exercise powers of ‘vast ‘economic and political significance.’” As SC-GHG estimates clearly meet the standard of having major political and economic significance and as DOE lacks clear statutory authority, it should not get ahead of Congress and use the SC-GHG in this rulemaking.

Moreover, the SC-GHG estimates developed by the Interagency Working Group (IWG) ignore the significant benefits oil and natural gas provide. Countries with greater access to reliable, affordable oil and natural gas not only have higher standards of living but also cleaner environments and healthier populations. Increased use of natural gas electricity generation leads to lower levels of air emissions. No other energy source does everything that oil and natural gas do. Without oil and natural gas, Americans’ modern, safe, and healthy lifestyles are simply not possible. Humanity would be worse off without the reliable, affordable energy oil and natural gas provide and without all the myriad products made possible by them, from anything with a microchip to pharmaceuticals to any food item not caught or captured in the wild.

When it comes to the priority of the Biden Administration, i.e., climate change, the IWG does not recognize the fact that fuel switching to natural gas in the electricity sector is the number one reason

the United States has reduced more greenhouse gas emissions than any other country since 2005.<sup>7</sup> Intermittent wind and solar energy are not possible without backup, with natural gas electricity being the best backup source. Increased natural gas electricity generation has reduced more GHG emissions than have wind and solar energy. Natural gas has delivered 61% of the reduction in GHGs resulting from fuel switching in the electricity sector, removing 4,404 million metric tons of carbon dioxide (MMT) since 2005. In contrast, wind, solar, and other non-carbon energy sources (excluding nuclear) have reduced GHG emissions by 2,798 MMT or 39%.<sup>8</sup> The balance of benefits from oil and natural gas heavily outweigh the impacts, yet the IWG SC-GHG estimates fail to account for any of these benefits.

In Section IV.L.1, DOE goes to great lengths to justify the use of the SC-GHG to buttress the monetized benefits of the rule, despite all the problems and controversies with it as acknowledged by DOE. Some of the problems that DOE articulates include:

The uncertain outcome of the court case and appeal in the Fifth Circuit.

The state of IWG's processes which DOE shows are in no way complete. DOE acknowledges it will use IWG's February 2021 SC-GHG Technical Support Document, "until revised estimates have been developed reflecting the latest, peer-reviewed science." The recounting of the history of the IWG in the section does not erase the fact that the estimates published in the IWG technical document are still interim. In fact the biggest flaw of using the SC-GHG is that the estimates have not been subject to a proper administrative process. Until such time as that occurs, the assumptions used in the SC-GHG are subjective and unsettled, as are the societal costs of GHG emissions and the related uncertainties of the SC-GHG estimates.

DOE articulates the history of the IWG's work but can point to no solid basis in law for it nor a final rule where the IWG's work was codified into regulation. The mere fact of IWG publishing a value does not codify that value.

Use of a global SC-GHG estimate rather than one specific to the United States is also problematic.

"Examples of omitted effects from the E.O. 13783 estimates include direct effects on U.S. citizens, assets, and investments located abroad, supply chains, U.S. military assets and interests abroad, and tourism, and spillover pathways such as economic and political destabilization and global migration that can lead to adverse impacts on U.S. national security, public health, and humanitarian concerns. In addition, assessing the benefits of U.S. GHG mitigation activities requires consideration of how those actions may affect mitigation activities by other countries, as those international mitigation actions will provide a benefit to U.S. citizens and residents by mitigating climate impacts that affect U.S. citizens and residents." (SNOPR p. 6866)

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<sup>7</sup> [Inventory of US Greenhouse Gas Emissions and Sinks](#), Environmental Protection Agency (EPA), April 2020, p. ES-4. [Global CO2 Emissions in 2019](#), IEA, February 2020; U.S. Energy-Related Carbon Dioxide Emissions, 2021, U.S. Energy Information Administration (EIA), December 2022.

<sup>8</sup> [EIA](#), December 14, 2022.

This cursory explanation fails to justify the policy implications implicit in the choice of using a global rather than U.S.-specific estimate. The standard for regulatory impact analysis to be based on U.S. impacts is brushed by DOE. Further, the choice fails to recognize that global impacts are significantly higher than projected U.S. impacts and that spillover effects to American footprints abroad would certainly not approach in magnitude the overall global damages projected by the SCC estimates. Yale university economist M. Kotchen compares a country's "preferred" SCC to the "global" SCC.<sup>9</sup> He notes that "climate change is the problem of a global externality" and suggests that "obtaining international consensus on a uniform value to internalize will be more challenging than often appreciated."

Using game theory and decision rules he models individual country "preferred" SCC (PSCC). He demonstrates that countries that will benefit the most from reducing global emissions, i.e., those with the highest projected marginal damages from climate change in comparison to a global average, tend to be those who have a higher PSCC. When using a Global Social Cost of Carbon (GSCC) of \$40 he models a PSCC for the United States of \$29. China's PSCC under the modeling is \$17. In other words, his research suggests that to serve its national interests the United States would be rational to support an internal SCC that is about 75% of the GSCC.

Perhaps there is a policy argument to be made for the United States to internalize a GSCC. However, that is not a scientific decision but rather a policy choice. It is not irrational in a world where nation states compete in the realms of energy and military power to argue for the United States to adopt a PSCC when making environmental policy. China in serving its self-interest would theoretically support a PSCC that is less than 50% of the GSCC according to Kotchen's modeling exercise. Kotchen's modeling indicates that a country's national interests do not necessarily align with a global SCC. He notes:

"In conclusion, this paper shows how establishing and using the GSCC among sovereign countries is not simply a case of estimating and internalizing an externality. While the theoretical treatments and empirical demonstrations are intentionally simple, they open the door to future research with potentially important insights to guide the estimation and the use of SCC and to inform the design of future climate policy."

Hence, even were consensus on a GSCC achievable, it would still be rational for U.S. policymakers to use a PSCC in light of energy, economic, and defense policies. DOE's use of the GSCC in this rulemaking is a policy choice based on a "value" proposition. One can argue for it, but DOE should not suggest its position is the only rational one or simply imply that it is science based. DOE should not be using the SC-GHG in the rule when these major policy questions remain unresolved and in the absence of a rulemaking that follows a full APA process.

The use of improperly-low discount rates: Discount rates can be manipulated to arrive at the SC-GHG that is desired. Hence, the choice of a discount rate is inherently controversial. While DOE properly uses the three and seven percent discount rates as specified in OMB Circular 4A for determining the actual consumer costs and benefits that are relevant to this rulemaking, i.e., the operating costs and NO<sub>x</sub> and SO<sub>2</sub> health benefits, the mixing and matching of discount rates with respect to climate change is

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<sup>9</sup> "[Which Social Cost of Carbon? A Theoretical Perspective](#)," M. Kotchen, *Journal of the Association of Environmental and Resource Economists*, volume 5, number 3, 2018.

inappropriate. For the 7% discount rate scenarios finding annual net monetized benefits between \$200.3 million and \$208.4 million, DOE uses a 3% discount rate for the climate change benefits. Basically what DOE is saying is the costs to today's consumers are not as valid as the hypothetical climate change benefits to tomorrow's citizen, who will be many times wealthier than today's consumer.<sup>10</sup> The 7% discount rate scenarios should consistently use a 7% discount rate for all cost and benefit components.

The use of a newly developed Social Cost of Methane (SC-CH4) is also inappropriate for use in the rule, as DOE acknowledges:

"In August 2016, the IWG published estimates of the social cost of methane (i.e., SC-CH4) and nitrous oxide (i.e., SC-N2O) using methodologies that are consistent with the methodology underlying the SC-CO2 estimates. The modeling approach that extends the IWG SC-CO2 methodology to non-CO2 GHGs has undergone multiple stages of peer review." (SNOPR p. 6865)

Peer review does not substitute for a public APA rulemaking process. The process of peer review is limited to determining if the methodologies, data, and conclusions used in a study meet basic scientific standards. Peer review in no way is concerned with the larger political and societal policy matters at issue. In addition, seminal studies have shown that most research that undergoes peer review is false.<sup>11</sup> Peer review is no substitute for an APA process.

We wish to refer to the discussion on the problems with the use of the SC-GHG that the Chamber of Commerce included in its comments to DOE on March 22, 2023 in response to the Energy Conservation Program: Energy Conservation Standards for Distribution Transformers (88 Fed. Reg. 1,722-1,859, January 11, 2023) Docket. No. EERE-2019-BT-STD-0018, RIN 1904-AE12. The Chamber urges DOE to reconsider the use of the SC-GHG estimates in any rulemaking before a full APA process has occurred. We concur and incorporate by reference the Chamber's comment Sections II, III and IV related to the SC-GHG estimates, which are just as relevant to energy conservation standards for cook stoves as they are for distribution transformers.

In conclusion, DOE is well aware of all the problems of using the SC-GHGs in this rulemaking, as it concedes:

"However, DOE notes it would reach the same conclusion presented in this proposed rulemaking that the proposed standards are economically justified no matter what value is

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<sup>10</sup> The study: "[Welfare in the 21<sup>st</sup> century: Increasing development, reducing inequality, the impact of climate change, and the cost of climate policies](#)", Bjorn Lomborg, *ScienceDirect*, Volume 156, July 2020; shows that, "Scenarios set out under the UN Climate Panel (IPCC) show human welfare will likely increase to 450% of today's welfare over the 21st century. Climate damages will reduce this welfare increase to 434%. That amounts to a 3.6% reduction in total GDP out to 2100 in a world that is much wealthier than today's world." Additionally, the predictions from the integrated assessment models, the central one being "[DICE 2013R: Introduction and User's Manual](#)," Yale University, Department of Economics, October 2013; estimates that global GDP in 2100 would suffer about a 3% loss from climate change, a small amount considering how much richer society will be in 2100.

<sup>11</sup> "[Why Most Published Research Findings Are False](#)", John P. A. Ioannidis, *Plos Medicine*, August 30, 2005, as corrected August 25, 2022.

ascribed to climate benefits. DOE requests comment on how to address the climate benefits and other non-monetized effects of the proposal.” (SNOPR p. 6865)

Absent the clear statutory authority to use the SC-GHG in this rulemaking and the lack of a full APA process, DOE should refrain from using any SC-GHG estimates at all in the rulemaking.

### Health Impacts

In response to DOE’s request:

“DOE seeks comment on any health impacts to consumers, environmental impacts, or general public health and welfare impacts (including the distribution of such impacts across sensitive populations) of its proposals in this SNOPR on on-site emissions from gas cooking products of methane, carbon dioxide, particulate matter, nitrogen dioxide, or other hazardous air emissions. DOE also seeks comment on whether manufacturers are instituting design approaches, control strategies, or other measures to mitigate methane or other emissions from incomplete combustion and leakage.” (SNOPR p. 6864)

We offer the following comments on the air emissions studies cited in the emissions analysis, Section X IV.K. The review of the scientific literature is too narrow and the few studies that are referenced are too biased to be relied upon by DOE in the final rule. The studies referenced were commissioned by environmental groups with a clear agenda to ban natural gas from homes and businesses. The poor study methodologies are designed to significantly overestimate levels of methane and air pollutants from gas ovens and stoves. DOE should include a more complete analysis of the best available scientific literature and adjust the monetization of benefits attributable to air emissions accordingly.

Stanford Study. DOE states:

“A 2022 study by Stanford University (‘Stanford Study’), which measured methane emissions in 53 California homes, suggests that gas ranges (including the gas cooking top and gas oven portions) contribute methane emissions that were estimated to be 0.8 to 1.3 percent of gas consumption for active (cooking) mode due to incomplete combustion and post-meter leakage during active, standby, and off modes.” (SNOPR p. 6863)

Yet this study has serious flaws that render it invalid for use by DOE in this rule.<sup>12</sup>

- 1) The study’s lead author, Eric Lebel, is a senior scientist at Physicians, Scientists and Engineers for Healthy Energy (PSEHE), an anti-oil-and-gas advocacy group whose founder has bragged his research is “a form of advocacy” that has “advocacy-laced words and phrases in our papers.”<sup>13</sup> Further, the PSEHE’s Executive Director wrote a memo in 2012 laying out a strategy for making questionable health claims about oil and natural gas. Such a biased study should be beneath the

<sup>12</sup> [Five Facts on PSEHE’s New Questionable Indoor Air Quality Study](#), Energy In Depth (EIS), January 28, 2022.

<sup>13</sup> [Anti-Fracking Donor Memo Mapped Out Strategy to Attack Oil and Gas with Questionable Health Claims](#), EID, May 9, 2017.

scientific standards of DOE.

- 2) Only through creating an unrealistic cooking environment not just lacking ventilation but actually encased in plastic could they produce the results from their small sample size.
- 3) Nine percent of their sample size emitted half of all measured emissions, a skewed sample that could perhaps be explained by poor study design.
- 4) Poor methodology is used to make unsupported health claims, including comparing indoor air over the course of a few minutes to NAAQS one-hour outdoor air standards, a method that was tried in another study from UCLA and properly debunked.<sup>14</sup>
- 5) The emissions detailed in the study could be easily addressed with kitchen ventilation and the use of a hood. Might we humbly suggest that the Stanford authors could have simply recommended the public not encase their kitchens in plastic. However, it is well established that good ventilation is necessary for the small amount of air emissions that result from cooking.

#### Emerging Air Studies

Likewise, DOE cites another Lebel study in footnote 88 that has the same issues of bias as the Lebel study in footnote 86 addressed above.

“Studies from the emerging field of indoor air quality have measured emissions of additional pollutants associated with gas cooking products not quantified in this SNOPR analysis that may potentially contribute to negative health impacts, especially in areas with inadequate ventilation.” (SNOPR p. 6863)

DOE should turn around this statement and instead of relying on two “emerging” studies referenced in the proposed rule footnotes 87 and 88, emphasize that range hoods are a simple solution for “poor ventilation.” DOE should cite to Dobbin et al. which demonstrates that kitchen exhaust fan use is the key to mitigating the small air emissions from cooking on whatever type of stove is used.<sup>15</sup>

Since cook stove emissions are based more on the type of food cooked than the type of cooktop; emissions are well under the health standards; and ventilation is the key to mitigating the small amount of emissions, DOE should emphasize that any cookstove must have adequate ventilation and a proper

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<sup>14</sup> [Issues that Render the Sierra Club/UCLA Study of Effects of Residential Gas Appliances on Indoor and Outdoor Air Quality and Public Health in California Not Useful for Decision-Making Purposes](#), Catalyst Environmental Solutions commissioned by the California Restaurant Association. This critique of the UCLA study can directly be applied to the Stanford Study that DOE cites: “For comparison to NAAQs and CAAQs [California Ambient Air Quality Standard], the UCLA Report compared peak (maximum) concentrations directly to 1-hour NAAQs and CAAQs. The comparison of maximum peak concentrations to a 1-hour standard is not correct and certainly not relevant for assessing health risks. The 1-hour NAAQS and CAAQS represent health effects thresholds associated with 1-hour time averaged exposures. It is meaningless to compare a maximum to an average.”

<sup>15</sup> [“The benefit of kitchen exhaust fan use after cooking - An experimental assessment”](#), Nina Dobbin et al., *Building and Environment*, Volume 135, May 2018.

range hood. DOE should not use its authority to set appliance energy conservation standards as a means to raise tangential concerns about potential health risks from gas stoves. DOE should not rely on incomplete and biased information in furtherance of an agenda to force a transition to electric stoves advanced by the very same activists commissioning and even conducting the research DOE cites.

Further, the American Gas Association (AGA) has done a thorough review of Lebel et al. October 2022 (proposed rule footnote 88) that details critical methodological and modeling flaws.<sup>16</sup> Even with all the modeling assumptions that: overestimate indoor air emissions; encompass all indoor air emissions, including those unrelated to indoor alliance use; and attribute outdoor air emissions to indoor air emission modeling values by up to 20%, all the median-value simulations of benzene concentrations in Lebel et al. October 2022 were below health standards. DOE should carefully review the AGA critique and then remove the reliance on Lebel et al., October 2022 from the final rule, including its contribution to arriving at the monetized benefits from reduced air emissions.

Yet another study referenced in the proposed rule, Seals et al. 2020 footnote 89, is more clear in its bias, as the Rocky Mountain Institute, itself an advocacy group, partnered with other known anti-oil-and-gas groups Mothers Out Front, Physicians for Social Responsibility, and the Sierra Club to develop the study. Yet again AGA has done a thorough review that we incorporate by reference here.<sup>17</sup> AGA also demonstrates the limitations of Logue et al. 2014, cited by DOE in footnote 87, as it is used in Seals et al. 2020.

#### Established Air Studies

On the other hand, DOE has overlooked a very well established air study which negates the claims made by Seals et al. 2020 on asthma. Seals herself had to walk back claims around the study that “does not assume or estimate a causal relationship” between childhood asthma and natural gas stoves.<sup>18</sup> The International Study of Asthma and Allergies in Childhood (ISAAC) utilizes data from more than 512,000 children in 47 countries and concluded there was “no evidence of an association between the use of gas as a cooking fuel and either asthma symptoms or asthma diagnosis.”<sup>19</sup> DOE should reference the ISAAC study in the final rule.

#### Violation of OMB’s 2002 Information Quality Guidelines (IQG)

Because DOE is relying on the flawed studies cited above, we request that DOE issue a correction under IQG. DOE has violated IQG procedurally by failing to correct error and substantively by relying on information that is neither reproducible by qualified third parties nor objective, both of which the IQG requires. Besides the poor studies identified in the “emerging studies” section above, DOE has made claims about energy savings for which it has not provided reference, such as on the 19 million

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<sup>16</sup> [Review and Comments “Composition, Emissions, and Air Quality Impacts of Hazardous Air Pollutants in Unburned Natural Gas from Residential Stoves in California,” 2022](#), AGA, October 26, 2022.

<sup>17</sup> [“American Gas Association Evaluation of Report Health Effects from Gas Stove Pollution,”](#) AGA, July 14, 2020.

<sup>18</sup> [“What to know about the study behind the push to ban gas stoves,”](#) Breanne Deppish, *Washington Examiner*, January 11, 2013.

<sup>19</sup> [“Cooking fuels and prevalence of asthma: a global analysis of phase three of the International Study of Asthma and Allergies in Childhood \(ISAAC\)”](#) Gary W.K. Wong, et al., *Lancet Respir Medicine*, July 2013.

unreferenced household energy savings equivalent. Please accept this letter as both a comment on the SNOPR as well as a formal Request for Correction under both DOE and 2002 Office of Management and Budget (OMB) Information Quality Act guidelines.

Western Energy Alliance appreciates the opportunity to comment on the proposed rule. Insofar as this proposed rule is a *de facto* ban on natural gas cooking products and runs afoul of the Major Questions Doctrine and DOE's EPCA authority, we strongly urge DOE not to move forward with a final rule.

Sincerely,

A handwritten signature in blue ink, appearing to read 'K M Sgamma', with a long horizontal flourish extending to the right.

Kathleen M. Sgamma  
President