

From: Ealey Cunningham, Allison
Sent: Thu, 13 Feb 2025 22:04:58 +0000
To: Hrkman, Lou (Louis)
Subject: [EXTERNAL] Follow Up Materials
Attachments: AGA Letter to DOE Transition Team_January 2025.pdf, (b) (4)Impacts Analysis as of 6.3.24.pdf, Fed Building Rule 89 FR 35384.pdf, Letter to Secretary Wright_AGA 2025.pdf

Lou—

Find attached digital copies of the items shared today. Additionally, I will follow up with additional EPCA-related materials from our team by COB tomorrow.

Please find attached:

- AGA letter to the DOE transition team
- AGA's impacts analysis of (b) (4)
- The Federal Register notice for the final rule
- Our meeting request letter for Secretary Wright

I believe you have digital copies of the other items but if anything is missing, please let me know.

Thank you!

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The American Gas Association represents more than 200 local energy companies committed to the safe and reliable delivery of clean natural gas to more than 74 million customers throughout the nation.

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January 16, 2025

Mr. Paul Dabbar

Mr. Samuel Buchan

Mr. Ted Garrish

Ms. Brette Powell

Mr. Joe Russo

Mr. Joe Uddo

Dear Members of the U.S. Department of Energy Transition Team:

Thank you for the opportunity to share the American Gas Association's ("AGA") priorities regarding the areas of jurisdiction within the U.S. Department of Energy ("DOE") and the U.S. Energy Information Administration ("EIA"). AGA represents more than 200 local energy companies that deliver clean natural gas throughout the United States. There are more than 79 million residential, commercial and industrial natural gas customers in the U.S., of which 94 percent — more than 74 million customers — receive their gas from AGA members. Today, natural gas meets nearly one-third of the United States' energy needs.¹

AGA has a direct and vital interest in DOE rules that impact natural gas appliances, as AGA's members serve residential and commercial consumers. The majority of such consumers use natural gas appliances, such as furnaces and water heaters. AGA also has an interest in DOE's policies related to the utilization of renewable natural gas and hydrogen in the energy system.

Additionally, AGA and its members are directly affected by EIA information collection requests because our members respond to EIA natural gas surveys. AGA and its members also rely on EIA data issuances for publications and market analyses.

Unfortunately, over the last few years DOE has utilized EPCA's energy efficiency standards process to limit or remove natural gas products and appliances from the market. Such actions violate the meaning and intention of EPCA. Although pursuant to the Energy Policy and Conservation Act ("EPCA") DOE is authorized to issue new or amended energy conservation standards for certain covered products,² the new or amended standards, among other things, need to result in significant additional conservation of energy and be technologically feasible and economically justified. Additionally, an amended standard cannot result in the unavailability in the United States in any product type (or class) of performance characteristics (including reliability, features, sizes, capacities, and volumes). In short, action over recent years has violated EPCA's prohibition of DOE from establishing standards that will remove equipment from the market with performance characteristics important to consumers.

Additionally, DOE has taken steps to eliminate the use of natural gas in federal buildings through issuing a rule that would eliminate natural gas from new federal buildings and major renovations of federal buildings in 2030. This was done despite the fact that such an action would not increase the overall energy efficiency of the buildings and would not result in a reduction of emissions. DOE even declined to provide

¹ For more information, please visit www.aga.org.

² 42 U.S.C § 6291, *et seq.*

a blanket exemption for Department of Defense buildings regardless of numerous national security issues raised during the rulemaking process.

Below is a summary of matters that AGA believes the incoming administration would benefit from reviewing and considering action to correct:

Permit Use of Reliable and Affordable Natural Gas in Federal Buildings

On May 1, 2024, DOE issued a final rule that phases out fossil fuel use in newly constructed federal buildings and buildings that have undergone extensive renovations.³ Specifically, federal agencies must reduce on-site fossil fuel use by 90%, compared with 2003 levels, in construction and renovation projects started between 2025 and 2029. Additionally, the final rule eliminates on-site fossil fuel use in new projects beginning in 2030. Furthermore, the final rule established revised energy performance standards for the construction of new Federal buildings, including commercial buildings, multifamily high-rise residential buildings, and low-rise residential buildings pursuant to the Energy Independence and Security Act of 2007 (“EISA”).

DOE’s final rule implementing the provisions of EISA should be reconsidered and withdrawn.⁴ While the underlying provisions of EISA warrant repeal by Congress for multiple reasons, the rule itself is nevertheless fundamentally flawed. Specifically, DOE completely misinterpreted the requirements of EISA and the plain meaning of the statute, resulting in the elimination of the on-site use of natural gas in new federal buildings and major renovations in 2030. In short, DOE’s rule that phases out fossil fuel use in newly constructed or renovated buildings raises significant legal and practical concerns. Even if the rule aims to achieve decarbonization and energy efficiency goals, DOE’s own analysis shows it would raise energy consumption and not reduce emissions. The elimination of natural gas from federal buildings undermines energy system reliability and affordability as well as limiting consumer choice. Moreover, since DOE declined to issue a waiver to the Department of Defense, the rule could impact mission critical readiness.

Ensure Consumer Access to Efficient Natural Gas Appliances

As noted above, DOE has used the appliance efficiency standards process to eliminate consumer access to efficient natural gas appliances. One of the most harmful rules issued by DOE relates to natural gas consumer furnaces. On December 18, 2023, DOE published a final rule that will eliminate from the market in winter 2028 a common type of natural gas furnace that is currently in millions of homes and accounts for a large percentage of the furnaces that consumers choose to purchase.⁵ The final rule would render illegal a type of furnace that equates to approximately 40-60% of the furnaces shipped to consumers annually. AGA believes that DOE acted in violation of EPCA and, along with others, challenged the rule and two other related issuances in federal court. The court case is currently pending.

DOE’s furnace rule highlights why DOE’s actions and processes should be evaluated and revised to ensure compliance with the enabling statutes and ensure consumers are not harmed by such regulatory actions. Notably, through the DOE rulemaking process, DOE ignored statutory compliant alternatives that would have increased energy efficiency and benefited consumers. Most concerning is the impact of DOE’s actions on low-income and senior households. Specifically, as related to the furnace rule, AGA calculates that DOE’s actions are projected to raise costs on 34% of those customers impacted by the rule. This

³ *New Federal Buildings and Major Renovations of Federal Buildings*, 89 Fed. Reg. 35384 (May 1, 2024).

⁴ See e.g., 42 U.S.C. § 6834(a)(3)(D)(i).

⁵ *Energy Conservation Program: Energy Conservation Standards for Consumer Furnaces*, 88 Fed. Reg. 87502 (Dec. 18, 2023).

includes increased costs on 41% of low-income and 33% of senior households impacted by the rule. The impact of all of DOE's rules on low-income and senior households cannot and should not be ignored. Due to the legal infirmities and the negative impact of DOE's rules and proposals on consumers, such actions should be fully reviewed and revised.

Furthermore, activities within DOE's Building Technology Office have been directed to promote electrification technologies and building electrification infrastructure and have ignored the direct use of natural gas as an affordable and energy-efficient solution for homes and businesses. DOE should review its current programs and initiatives to ensure each adopts a fuel-neutral approach, rather than focusing solely on electrification as the primary pathway to energy efficiency and emissions reductions. Natural gas, including renewable natural gas ("RNG") and hydrogen, plays a vital role in promoting affordable, reliable, and resilient energy services while advancing national goals. By incorporating diverse energy sources to the energy mix, DOE can create policies that respect consumer choice, optimize infrastructure use, and support emissions reductions across all sectors.

This review should include, among others, the following rules, proposals, guidance, issuances, programs, and funding opportunities:⁶

- **Natural Gas Consumer Furnaces** – A final rule illegally eliminating efficient natural gas non-condensing furnaces from the market.⁷ This matter is currently under court review.⁸
- **Commercial Water Heating Equipment** – A final rule illegally eliminating efficient natural gas non-condensing commercial water heaters from the market.⁹ This matter is currently under court review.¹⁰
- **Interpretive Rule on Furnaces and Water Heaters** – A final interpretive rule issued by DOE detailing, *inter alia*, the rationale for the agency's ability to eliminate natural gas products from the market.¹¹ This matter is currently under court review.¹²
- **Natural Gas Consumer Water Heaters** – A final rule illegally eliminating certain efficient natural gas instantaneous water heaters from the market.¹³
- **Natural Gas Cooking Products** – A direct final rule that would remove a limited number of gas cooktops from the market but would only result in *de minimis* energy savings.¹⁴

⁶ In addition to the items below, the administration should review actions by other agencies that could impact the natural gas industry and consumer choice, such as, U.S. Department of Housing and Urban Development, *Adoption of Energy Efficiency Standards for New Construction of HUD- and USDA-Financed Housing*, Docket No. FR-6271-N-01, among others.

⁷ *Energy Conservation Program: Energy Conservation Standards for Consumer Furnaces*, 88 Fed. Reg. 87502 (Dec. 18, 2023).

⁸ *AGA v. DOE*, D.C. Cir. Nos. 22-1030, 23-1285, and 23-1337.

⁹ *Energy Conservation Program: Energy Conservation Standards for Commercial Water Heating Equipment*, 88 Fed. Reg. 69686 (Oct. 6, 2023).

¹⁰ *AGA v. DOE*, D.C. Cir. Nos. 22-1030, 23-1285, and 23-1337.

¹¹ *Energy Conservation Program for Appliance Standards: Energy Conservation Standards for Residential Furnaces and Commercial Water Heaters*, 86 Fed. Reg. 73947 (Dec. 29, 2021).

¹² *AGA v. DOE*, D.C. Cir. Nos. 22-1030, 23-1285, and 23-1337.

¹³ *Energy Conservation Program: Energy Conservation Standards for Consumer Gas-fired Instantaneous Water Heaters*, 89 Fed. Reg. 105188 (Dec. 26, 2024).

¹⁴ *Energy Conservation Program: Energy Conservation Standards for Consumer Conventional Cooking Products*, 89 Fed. Reg. 65520 (Aug. 12, 2024).

- **Natural Gas Consumer Boilers** – DOE issued a notice of proposed rulemaking that would have eliminated efficient natural gas boilers from the market.¹⁵ A withdrawal of the proposal is anticipated to be published on January 17, 2025. Nevertheless, the proposal to remove boilers from the market in violation of EPCA is concerning.
- **Miscellaneous Gas Products** – A proceeding is pending that would inappropriately expand DOE’s control over various natural gas products, such as, vented gas log sets, indoor vented decorative hearth products, outdoor decorative hearth products, and outdoor patio heaters, in violation of EPCA.¹⁶
- **Commercial Packaged Boilers** – The court vacated DOE’s illegal rule related to commercial packaged boilers and the matter is now pending at DOE.¹⁷
- **Consumer Pool Heaters** – A final rule that eliminates certain natural gas pool heaters from the market.¹⁸
- **National Definition of a Zero Emissions Building** – This guidance issuance would prohibit onsite combustion of fuels in future building construction.¹⁹ The definition, intended to provide industry guidance to support new buildings moving toward zero emissions, rules out the use of natural gas with carbon capture and other low or zero-carbon fuels, including RNG, hydrogen, and other biofuels in any building codes that adopt DOE’s definition of zero-emissions.
- **National Blueprint for Building Decarbonization** – The emissions reduction pathways do not contemplate the role the direct use of natural gas and other fuels can play in decarbonization, focusing only on electrifying space and water heating.
- **Technical Assistance for the Adoption of Building Energy Codes** – Funds awarded to promote the adoption of new building energy codes are based on a methodology that unfairly biases against the direct use of natural gas.²⁰

DOE has utilized various methods to shift the purpose of the energy efficiency rulemaking process away from the plain meaning of EPCA and the statute’s overall intent in a way that harms consumers. This starts with DOE’s own processes. Specifically, DOE has established what it calls the “Process Rule,” which is published in the Code of Federal Regulations.²¹ In reality, the Process Rule is not an actual federal rule,

¹⁵ *Energy Conservation Program: Energy Conservation Standards for Consumer Boilers*, EERE-2019-BT-STD-0036, RIN 1904-AE82, 88 Fed. Reg. 55128 (August 14, 2023).

¹⁶ See *Energy Conservation Program: Energy Conservation Standards for Miscellaneous Gas Products*, Docket No. EERE-2022-BT-STD-0017.

¹⁷ See *APGA v. DOE*, 72 F.4th 1324 (D.C. Cir. 2023).

¹⁸ *Energy Conservation Program: Energy Conservation Standards for Consumer Pool Heaters*, 88 Fed. Reg. 34624 (May 30, 2023).

¹⁹ See National Definition for a Zero Emissions Building, <https://www.energy.gov/eere/buildings/national-definition-zero-emissions-building> (last visited January 14, 2025).

²⁰ See Inflation Reduction Act of 2022 (IRA): Assistance for the Adoption of the Latest and Zero Building Energy Codes Funding Opportunity Announcement (FOA) - Equivalency Methodology Supporting Funding Eligibility for Section 50131 of the IRA, <https://infrastructure-exchange.energy.gov/FileContent.aspx?FileID=0dcab580-0055-478d-aad2-d639f551a195> (last visited January 14, 2025).

²¹ See *Energy Conservation Program for Appliance Standards: Procedures, Interpretations, and Policies for Consideration in New or Revised Energy Conservation Standards and Test Procedures for Consumer Products and Commercial/Industrial Equipment*, 86 Fed. Reg. 70892 (Dec. 13, 2021).

and it is not binding on DOE. DOE's processes should be reviewed and revised, consistent with EPCA, and any rule on DOE's process should be binding and enforceable on the agency.

DOE should also update and revise how it conducts its analysis to ensure compliance with the Administrative Procedure Act and EPCA, as well as use appropriate mechanisms to evaluate revisions to any energy efficiency standards. A particular focus should be on the following areas, among others:

- **Separate Product Classes** – DOE should establish separate product classes for condensing and non-condensing natural gas products. EPCA protects consumer choice by ensuring energy conservation standards are not likely to result in the unavailability of any covered product type (or class) of performance characteristics currently available to consumers.
- **Full Fuel Cycle** – DOE should fully implement the recommendations of the National Academy of Sciences regarding the use of full fuel cycle measures into the establishment of energy conservation standards.²² Full fuel cycle metrics would enable a more comprehensive analysis of the total energy usage and environmental impacts of appliance energy efficiency standards.
- **Low-Income and Senior Households** – DOE's rules should not harm any customers, particularly DOE's actions should not increase costs on low-income and senior households.
- **Fuel Switching** – DOE should be fuel neutral. Congress designed the energy conservation standards to be fuel neutral and not favor one energy source over another. By considering fuel switching as a benefit in some contexts and ignoring it in others, DOE has improperly favored a single energy source, contrary to its authority and against consumers' interests.
- **Economic Justification** – DOE should pay greater attention to the justification for the standards, as required by EPCA's requirement that standards be economically justified. DOE should attempt to find significant failures of private markets or irrational behavior by consumers in the no-standards case and should consider such a finding as being necessary to conclude that standards are economically justified.
- **Cost Analysis** – 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.
- **Market-Based Evidence** – 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.
- **Market Failure** – 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.
- **Supply Side** – 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.

²² *Energy Conservation Program for Consumer Products and Certain Commercial and Industrial Equipment: Statement of Policy for Adopting Full-Fuel-Cycle Analyses Into Energy Conservation Standards Program*, 76 Fed. Reg. 51281 (August 18, 2011).

- **Energy Prices** – DOE should update its approach to energy prices in the rulemaking process. DOE routinely uses energy price projections that overestimate the cost of natural gas.
- **Random Assignment** – DOE should revise its utilization of random assignment in rulemakings. The manner in which DOE uses random assignment in its analysis is technically flawed and it results in a meaningful impact on DOE results.
- **Test Procedures** – DOE should be required to publish final test procedures for appliances before initiating a minimum efficiency standards rulemaking for the same appliance.
- **Minimum Requirements** – DOE must meet a minimum 3-year payback period before DOE can propose a minimum efficiency requirement for the covered product.

DOE Should Encourage the Market for Natural Gas Heat Pumps

Natural gas heat pumps can provide efficient heating and cooling to commercial and residential customers. Advanced gas heat pump systems can provide homes and businesses with highly efficient space heating, water heating, and cooling options. Importantly, gas heat pumps used for space heating can maintain high-efficiency levels even in colder climates.

Gas heat pumps move heat from one place (“the source”) to another (“the sink”). Because gas heat pumps move heat rather than generate heat, the product can achieve efficiency ratings over 100%. Gas heat pumps use gas-powered technology to pressurize refrigerants and heat exchangers to move heat efficiently from outside a building to the inside. Natural gas heat pumps also use about half the energy of a typical furnace or water heater to provide the same services. These units can operate in heating and cooling modes and can heat spaces and water.

Gas heat pumps are already available for commercial buildings. With the market growing rapidly, the expectation is that various new products for both residential and commercial uses will be widely available in the coming years. DOE should encourage the market for natural gas heat pumps and eventually establish efficiency standards for the products. This encouragement could include incorporating gas heat pumps into DOE’s Appliance and Equipment Standards Program and adding the products to DOE’s eeCompass tool. DOE could also consider refocusing or expanding existing grant opportunities to include gas heat pumps. DOE’s goal should be to improve access to this efficient natural gas product and reduce the costs for early adopters of this technology.

DOE Should Not Interfere with Building Codes and the ANSI/ASHRAE Process

In the United States, two model codes are adopted for energy efficient buildings - the *International Energy Conservation Code* (residential and commercial) published by the International Code Council, and the *ASHRAE 90.1, Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings*. These codes establish the minimum energy performance requirements for all building aspects, including insulation, fenestrations, lighting, water use and HVAC-R. During the most recent revisions of these two codes, proponents of all-electric buildings including representatives from DOE and Pacific Northwest National Laboratory (“PNNL”) have proposed revisions that would severely restrict, if not ban, the use of natural gas and propane appliances. PNNL reviews the proposed revisions to determine the estimated energy savings of the code for DOE. AGA has expressed concerns to the International Code Council about both DOE and PNNL having voting seats on the International Energy Conservation Code Consensus Committees and having the ability to unduly influence the process.

The Appliance Standards and Rulemaking Federal Advisory Committee Should Have Sufficient Industry Representation

The Appliance Standards and Rulemaking Federal Advisory Committee (“ASRAC”) was established by the Appliance and Equipment Standards Program to support DOE’s process for developing energy efficiency standards for appliances and commercial equipment. ASRAC was created as a discretionary advisory committee to provide advice and recommendations related to efficiency standards and test procedures, among other things. ASRAC facilitates the use of negotiated rulemakings to engage stakeholders, collect data, and work toward consensus on energy efficiency standards.

ASRAC is comprised of approximately 12 committee members that are appointed by the Secretary of Energy. Members include Government employees or representatives of entities from the following: energy efficiency, appliance and commercial equipment standards, and industry (including manufacturers and trade associations representing manufacturers, component manufacturers and related suppliers, and retailers), utilities, energy efficiency/environmental advocacy groups, consumers and at least one DOE employee. Ensuring sufficient natural gas industry and utility representation on ASRAC is a priority for AGA. Representation from the natural gas industry and utilities is essential to ensure that diverse perspectives are included in ASRAC’s discussions, which will aid in the committee’s decision-making process. Notably, AGA nominated a candidate for ASRAC in both 2022 and 2024 when DOE sought nominations. Unfortunately, the Secretary of Energy did not add AGA’s representative to ASRAC. Looking forward, it is essential that the interests of the natural gas utility industry are fully represented on ASRAC.

DOE Should Support Renewable Natural Gas and Hydrogen

AGA is committed to reducing greenhouse gas emissions through smart innovation, new and modernized infrastructure, and advanced technologies that maintain reliable, resilient, and affordable energy service choices for consumers. As part of this commitment, it is recognized that RNG and hydrogen are two low-carbon fuels that can help LDCs and their customers meet their energy needs and environmental goals. The introduction of these renewable fuels into the energy infrastructure will diversify the energy grid, strengthening its reliability. AGA believes that America’s gas network can and should be leveraged to enable the delivery of renewable fuels, such as RNG and hydrogen, to customers. As LDCs look to utilize new and existing pipeline infrastructure to deliver energy sources beyond geologic natural gas, the incorporation of RNG and hydrogen into the energy system is just one of the many steps AGA members are taking to promote sustainability, reduce emissions, and maintain commitments to deliver safe, cost-effective, and reliable energy. Our members recognize the integral role that RNG and hydrogen can play in reducing the carbon footprint of their operations and their customers. As a result, many AGA members have already begun demonstrating their commitment to introduce RNG and/or hydrogen into the existing gas system through initiating pilot programs, research and development concerning hydrogen blending and impact on end-use appliances. Additionally, hydrogen, in particular, has risen to the forefront since the establishment of the Regional Clean Hydrogen Hubs Program and allocation of \$8 billion towards building the hydrogen hubs across the U.S.²³ Seven projects were selected for the award and are currently in phase 1 of the process.²⁴ Sixteen AGA members are part of the hydrogen projects that were selected.

Unfortunately, even with so much attention and excitement surrounding the benefits of these fuels, projects are met with backlash from groups and have, in some instances, stopped or delayed the approval of needed energy projects. AGA members are doing their part to find solutions to the challenges facing

²³ See <https://www.energy.gov/articles/biden-harris-administration-announces-7-billion-americas-first-clean-hydrogen-hubs-driving> (last visited January 14, 2025).

²⁴ *Id.*

the industry today and AGA encourages DOE and the incoming administration to work with the industry to realize the positive benefits that RNG and hydrogen can bring to the energy sector. AGA believes that DOE should look for opportunities to support large-scale RNG and hydrogen production and eliminate cost and permitting barriers. DOE should also continue to conduct research into hydrogen related to production, transportation, distribution and storage, and end-use appliances and equipment. Finally, AGA encourages the incoming administration to work towards removing regulatory barriers for the use of hydrogen and RNG as a fuel.

DOE and EPA Should Not Remove Gas Appliances from the ENERGY STAR Program

ENERGY STAR is a joint program of the U.S. Environmental Protection Agency (“EPA”) and DOE. The ENERGY STAR label identifies top-performing, cost-effective products, homes, and buildings. AGA and its members support energy efficiency and conservation efforts, including the efficient use of natural gas in homes and businesses. AGA supports the ENERGY STAR program’s mission to provide “simple, credible, and unbiased information” on a product’s energy efficiency.²⁵ Past proposals to eliminate certain natural gas appliances from ENERGY STAR have undercut the entire value and purpose of the program.²⁶ ENERGY STAR should not be used in a manner that harms DOE’s and EPA’s equipment and utility partners, deprives consumers of accurate information about natural gas equipment, and could lead to higher energy use and emissions.

AGA members are doing their part to ensure customers have access to efficient natural gas appliances. In 2022, U.S. utilities achieved substantial energy savings through natural gas efficiency programs, totaling 336 million therms, equivalent to 1.7 million metric tons of avoided CO₂ emissions.²⁷ The majority of the therms saved, roughly 41%, were due to residential programs available to customers. In 2022, utilities in North America spent \$1.51 billion on these programs, a 37% increase from 2021.²⁸ Utilities budgeted nearly \$1.8 billion for 2023, indicating a continued commitment to efficiency programs.²⁹ ENERGY STAR-certified gas furnaces, for example, have been a central offering within these utility programs. Natural gas utility efficiency programs promote the use of ENERGY STAR home heating equipment and often rely on ENERGY STAR certification when determining eligibility for utility-provided incentives including appliance rebates.³⁰ Appliance rebates are housed within the ‘Customer Incentive’ portion of natural gas utility energy efficiency programs, and roughly 60% of natural gas utility budgets for 2022 were spent on such incentives. Dedicating over half of the annual budget to rebates, loans, and other financial incentives for customers showcases natural gas utilities’ continued commitment to helping customers lower their energy needs and subsequently save on their energy bills. AGA’s Natural Gas Efficiency Programs Report, 2021 & 2022 Program Year was published in October 2024,³¹ and includes information on natural gas efficiency and low-income weatherization programs for the 2021 and 2022 program years. Additionally, appendices to the AGA report outline in detail the amount spent on energy efficiency in the various states and regions in addition to therms saved.

²⁵ See ENERGY STAR Overview, available at <https://www.energystar.gov/about> (last visited January 14, 2025).

²⁶ See <https://www.energystar.gov/sites/default/files/asset/document/HVAC%20Sunset%20Letter.pdf> (last visited January 14, 2025).

²⁷ See AGA, 2021 and 2022 Natural Gas Efficiency Programs Report, <https://www.aga.org/research-policy/resource-library/natural-gas-utility-efficiency-programs/> (last visited January 14, 2025).

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.*

³¹ See <https://www.aga.org/wp-content/uploads/2024/10/2021-2022-Natural-Gas-Efficiency-Programs-Report.pdf> (last visited January 14, 2025).

DOE and EPA should follow ENERGY STAR's Products Program Strategic Vision and Guiding Principles, which recognize that specifications should be designed "to treat fuel types separately, so that consumers may find the right products for the fuel type in their home, as most make product replacements without switching fuel types."³² The prior attempts to eliminate natural gas from the ENERGY STAR program would have rendered unavailable to customers ENERGY STAR appliances that are right for their homes, and incentivizing switching fuel types is in violation of ENERGY STAR's principles.

The incoming administration should evaluate all pending and recent ENERGY STAR program revisions to ensure any changes are consistent with the program's principles and provide accurate information to consumers. Notably, there are recent and currently pending changes to the ENERGY STAR program related to natural gas furnaces³³ and boilers.³⁴

Regarding natural gas furnaces, on January 10, 2025, EPA issued the Final Version 5.0 ENERGY STAR Furnace Specifications with a target effective date of July 31, 2026 ("Final Version 5.0").³⁵ In Final Version 5.0, EPA establishes performance requirements of 97% AFUE for the U.S. North³⁶ and 95% AFUE for the U.S. South³⁷ for natural gas furnaces. AGA supports the regional distinctions for ENERGY STAR natural gas furnaces, *i.e.*, the U.S. North and South distinctions. The regional split for natural gas furnaces in the ENERGY STAR program reflects the reality that in the southern half of the U.S., generally, homes require less heat when compared to the northern half of the U.S. Therefore, having different gas furnace efficiency requirements and labels used for different regions of the country is appropriate.³⁸

The Final Version 5.0, however, should be revised so that the level in the U.S. South is 92% AFUE. Specifically, AGA recommends, as it previously mentioned to EPA, that the levels be set at AFUE 97% in the U.S. North and 92% in the U.S. South starting sometime in 2026. Under AGA's proposal, there would be a 2-percentage point increase in AFUE applied to each regional specification, as related to the levels in effect prior to Final Version 5.0. This change would be a 2-percentage point increase in AFUE in both regions, setting the U.S. South at 92% and the U.S. North at 97%, and thus preserving significant product availability for most consumers. Furthermore, this would allow for significant energy savings in the U.S.

³² EPA, "ENERGY STAR Products Program Strategic Vision and Guiding Principles," available at https://www.energystar.gov/sites/default/files/asset/document/ENERGY_STAR_Strategic_Vision_and_Guiding_Principles.pdf (last visited January 14, 2025).

³³ See ENERGY STAR Version 5.0 Furnaces Final Specification, available at <https://www.energystar.gov/furnace-version-5-pd> (last visited January 14, 2025).

³⁴ See Email from ENERGY STAR; ENERGY STAR Residential Boilers Discussion Guide and Early Stakeholder Feedback, June 5, 2023, available at https://www.energystar.gov/sites/default/files/asset/document/ENERGY%20STAR%20Residential%20Boilers%20Discussion%20Guide_0.pdf?_gl=1*103ldb1*_ga*MTAwNjkzMjc5OS4xNjcwNDI3MzMw*_ga_S0KJTVVLQ6*MTY4NTk4ODU4Ny4yODEuMS4xNjg1OTg5MzA5LjAuMC4w (last visited January 14, 2025).

³⁵ See ENERGY STAR Version 5.0 Furnaces Final Draft Specification, available at <https://www.energystar.gov/furnace-version-5-pd> (last visited January 14, 2025).

³⁶ The U.S. North is defined as Alaska, Colorado, Connecticut, Idaho, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Washington, West Virginia, Wisconsin, and Wyoming.

³⁷ The U.S. South is defined as Alabama, American Samoa, Arizona, Arkansas, California, Delaware, District of Columbia, Florida, Georgia, Guam, Hawaii, Kentucky, Louisiana, Maryland, Mississippi, Nevada, New Mexico, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, and Virginia.

³⁸ See AGA's December 19, 2024 Letter on the December 2024 Furnace Proposal, available at <https://www.energystar.gov/sites/default/files/2024-12/AGA%20Comments.pdf> (last visited January 14, 2025).

North, where the average usage is more than twice that of the U.S. South, while continuing to incentivize more efficient, cost-effective options in the U.S. South.

Regarding the June 5, 2023 proposal to eliminate efficient natural gas boilers from the ENERGY STAR program,³⁹ this proposal should be withdrawn. AGA strongly opposes any such proposal to remove natural gas products from the program. The ENERGY STAR label serves as a crucial tool for consumers to make informed decisions about the energy efficiency of appliances. Eliminating this label for natural gas equipment will leave consumers with less information, potentially leading them to purchase less efficient products.

In short, it is essential to maintain the ENERGY STAR label for natural gas products to ensure consumers can differentiate between gas appliances. The ENERGY STAR label plays an important role in guiding consumer decisions, promoting energy efficiency, and has been instrumental in transforming the market towards more energy-efficient appliances.

EIA's Natural Gas Data Collection Should be Supported and Improved

EIA is the statistical agency of DOE, and it provides independent data, forecasts, and analyses regarding energy. AGA members respond to EIA data collection surveys and rely on EIA data issuances for market analyses and publications. AGA supports EIA's collection of data and believes certain areas can be improved.

AGA believes that EIA should update its data collection concerning RNG and hydrogen. Currently, EIA does collect data related to RNG. However, the collection of such information should be expanded, revised, and a separate survey created.⁴⁰ Furthermore, EIA only collects limited information on hydrogen and AGA believes that this effort should be expanded so that it can start to gather and track the integration of hydrogen into the energy system.

AGA wants to ensure that EIA continues to collect appropriate and useful data. One area of concern is EIA's proposal to collect information on residential utility disconnections.⁴¹ EIA maintains that the proposal is intended to collect data so that there can be the appropriate levels of budgetary support for various assistance programs across the United States, including energy assistance programs. Disconnecting customers is always a last resort for LDCs when dealing with unpaid bills. AGA members work with customers on various payment and assistance options while continuing to coordinate with state and federal agencies in these efforts. Though EIA's proposal to collect certain data is well intentioned, it may not be the most judicious use of agency resources or provide the information needed for the stated purpose. Furthermore, the proposed survey sampling techniques and intent to publish disconnection data at the utility level would further confuse the public and policymakers on how assistance allocations are made. Due to issues with the proposal, EIA's new information collection effort on disconnections should be revised, narrowed, and focused so that it can yield the intended outcomes desired by EIA.

Thank you for your time and consideration. AGA is committed to being a resource for DOE and stands ready to work with the incoming administration on these important matters that will ensure affordable and reliable energy for Americans.

³⁹ See ENERGY STAR Residential Boilers Discussion Guide and Early Stakeholder Feedback, June 5, 2023, available at https://www.energystar.gov/sites/default/files/asset/document/ENERGY%20STAR%20Residential%20Boilers%20Discussion%20Guide_0.pdf?_gl=1*103ldbi*_ga*MTAwNjkzMjc5OS4xNjcwNDI3MzMw*_ga_S0KJTVVLQ6*MTY4NTk4ODU4Ny4yODEuMS4xNjc1OTg5MzMzA5LjAuMC4w (last visited January 14, 2025).

⁴⁰ See EIA-176 - Annual Report of Natural and Supplemental Gas Supply & Disposition.

⁴¹ See *Agency Information Collection Proposed New Survey*, 89 Fed. Reg. 82598 (Oct. 11, 2024).

If you have any questions regarding this submission, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read "Matthew J. Agen". The signature is fluid and cursive, with a long horizontal stroke at the end.

Matthew J. Agen
Chief Regulatory Counsel, Energy
American Gas Association

Draft June 3, 2024

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DEPARTMENT OF ENERGY

10 CFR Parts 433 and 435

[EERE-2010-BT-STD-0031]

RIN 1904-AB96

Clean Energy for New Federal Buildings and Major Renovations of Federal Buildings

AGENCY: Federal Energy Management Program, Department of Energy.

ACTION: Final rule.

SUMMARY: The Department of Energy ("DOE") is publishing a rule that establishes energy performance standards for the new construction and major renovation of Federal buildings, including commercial buildings, multi-family high-rise residential buildings, and low-rise residential buildings per the Energy Conservation and Production Act ("ECPA"), as amended by the Energy Independence and Security Act of 2007 ("EISA"). Consistent with the requirements of ECPA and EISA, DOE is establishing Federal building energy performance standards that require Federal agencies to reduce their use of on-site use of fossil fuels (which include coal, petroleum, natural gas, oil shales, bitumens, tar sands, and heavy oils) consistent with the targets of ECPA and EISA. This final rule also provides processes by which Federal agencies may petition DOE for a modification to the final standards.

DATES: The effective date of this rule is July 15, 2024. Compliance with revised performance standards established in this rule is required for the construction of new and major renovation of Federal buildings, including commercial buildings, multi-family high-rise residential buildings, and low-rise residential buildings, for which design for construction begins on or after May 1, 2025.

ADDRESSES: The docket for this rulemaking, which includes **Federal Register** notices, public meeting attendee lists and transcripts, comments, and other supporting documents/materials, is available for review at www.regulations.gov. All documents in the docket are listed in the www.regulations.gov index.

The docket web page can be found at www.regulations.gov/docket/EERE-2010-BT-STD-0031. The docket web page contains instructions on how to access all documents, including public comments, in the docket.

FOR FURTHER INFORMATION CONTACT:

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I. Introduction

The following section briefly discusses the statutory authority underlying this final rule, as well as some of the relevant historical background related to the establishment of a fossil fuel-generated energy consumption reduction rule for certain Federal buildings.

A. Authority

Section 305 of ECPA established energy conservation requirements for Federal buildings. 42 U.S.C. 6834. Section 433(a) of EISA amended section 305 of ECPA and directed DOE to establish regulations that require certain new Federal buildings and Federal buildings undergoing major renovations to reduce their fossil fuel-generated energy consumption. 42 U.S.C. 6834(a)(3)(D)(i). The fossil fuel-generated energy consumption reductions only apply to Federal buildings that: (1) are "public buildings" (as defined in 40 U.S.C. 3301)¹ with respect to which the

¹ Under 40 U.S.C. 3301(a)(5), "public building" is a building, whether for single or multitenant occupancy, and its grounds, approaches, and appurtenances, which is generally suitable for use as office or storage space or both by one or more Federal agencies or mixed-ownership Government corporations. "Public building" includes Federal office buildings, post offices, customhouses, courthouses, appraisers stores, border inspection facilities, warehouses, record centers, relocation facilities, telecommuting centers, similar Federal facilities, and any other buildings or construction projects the inclusion of which the President considers to be justified in the public interest. The definition does not include a building or construction project that is on the public domain (including that reserved for national forests and other purposes); that is on property of the Government in foreign countries; that is on Native American and Native Alaskan property held in trust by the Government; that is on land used in connection with federal programs for agricultural, recreational, and conservation purposes, including research in connection with the programs; that is on or used in connection with river, harbor, flood control, reclamation or power projects, for chemical manufacturing or development projects, or for nuclear production, research, or development projects; that is on or used in connection with housing and residential projects; that is on military installations (including any fort, camp, post, naval training station, airfield, proving ground, military

Administrator of General Services is required to transmit a prospectus to Congress under 40 U.S.C. 3307;² or (2) those that cost at least \$2,500,000 in costs adjusted annually for inflation. 42 U.S.C. 6834(a)(3)(D)(i).

For these buildings, section 305 of ECPA, as amended by EISA, mandates that the buildings be designed so that a building's fossil fuel-generated energy consumption is reduced as compared with such energy consumption by a similar building in fiscal year ("FY") 2003 (as measured by Commercial Buildings Energy Consumption Survey ("CBECS") or Residential Energy Consumption Survey ("RECS") data from the DOE's Energy Information Administration ("EIA")) by 55 percent beginning in FY 2010, 65 percent beginning in FY 2015, 80 percent beginning in FY 2020, 90 percent beginning in FY 2025, and 100 percent beginning in FY 2030, also shown in Table I.1. 42 U.S.C. 6834(a)(3)(D)(i)(I).

TABLE I-1—BUILDING PERCENTAGE REDUCTION REQUIREMENTS BY FISCAL YEAR

Fiscal year	Percentage reduction
2010	55
2015	65
2020	80
2025	90
2030	100

In addition, ECPA, as amended by EISA, permits DOE to adjust the applicable numeric reduction requirement downward with respect to a specific building, if the head of the Federal agency requesting the downward adjustment certifies in writing that meeting such requirement would be technically impracticable in light of the agency's specified functional needs for that building and DOE concurs with the agency's conclusion. 42 U.S.C. 6834(a)(3)(D)(i)(II). Such an adjustment does not apply to the General Services Administration ("GSA"). *Id.*

B. Background

In this final rule, DOE establishes regulations that require certain new Federal buildings and Federal buildings undergoing major renovations to be

supply depot, military school, or any similar facility of the Department of Defense; that is on installations of the Department of Veterans Affairs used for hospital or domiciliary purposes; or the exclusion of which the President considers to be justified in the public interest.

² 40 U.S.C. 3307 describes the minimum construction, alteration, and lease costs that would trigger a prospectus to Congress.

designed to reduce their fossil fuel-generated energy consumption and provides a process for Federal agencies to petition for a downward adjustment from these requirements if applicable. This rule amends the regulations governing energy efficiency in Federal buildings found in 10 CFR parts 433 and 435.

DOE previously published a notice of proposed rulemaking ("NOPR") in the **Federal Register** on October 15, 2010, which proposed a rule to implement section 433 of EISA. 75 FR 63404. A public meeting on the NOPR was held on November 12, 2010, and public comments were accepted through December 14, 2010. DOE received several comments expressing concern and encouraging DOE to re-examine the proposed regulations.³ In response to these comments, DOE identified additional areas for clarification and consideration that would benefit from further public comment. DOE issued a supplemental notice of proposed rulemaking ("2014 SNOPR") on October 14, 2014. 79 FR 61694. Comments were accepted through December 15, 2014. *Id.* DOE received comments requesting reconsideration of key issues.

DOE revisited its proposed rule and issued a second SNOPR on December 21, 2022 ("2022 SNOPR"). 87 FR 78382. The rule proposed in the 2022 SNOPR differed from the rule proposed in the 2014 SNOPR. Specifically, the rule proposed in the 2022 SNOPR:

Limited its application to on-site fossil fuel usage or Scope 1 GHG emissions in CO₂e ("Carbon Dioxide Equivalent Gases").

Introduced a shift multiplier for Federal commercial buildings that operate on extended schedules compared to the private sector buildings sampled in CBECS.

Revised the calculation of fossil fuel usage to be consistent with how DOE measures fossil fuel usage and greenhouse gas emissions in reporting related to Section 432 of EISA.

Clarified that the rule applies to EISA-subject major renovations for (1) all on-site fossil fuel-using systems, (2) on-site fossil fuel-using system level renovations, and (3) on-site fossil fuel-using component level renovations.

Clarified when the rule applies to leased Federal facilities.

Refined an approach to determine required fossil fuel-generated energy consumption levels for EISA-subject major renovations that are limited to system or component level retrofits.

³ Complete contents of the docket folder may be found at www.regulations.gov/#!docketDetail;D=EERE-2010-BT-STD-0031.

Provided an alternative compliance method for buildings with process loads that are not included in CBECS and RECS.

Clarified that process loads of building types not included in CBECS are not subject to the fossil fuel reduction requirements.

Stated that certain renewable fuels are exempt from the calculation of fossil fuel usage.

Identified information Federal agencies must provide when petitioning for a downward adjustment.

A public meeting on the 2022 SNOPR was held on January 5, 2023, and public comments were accepted through March 23, 2023. 87 FR 78382; 88 FR 12267. The comment period was extended to accommodate requests from stakeholders to provide additional time to analyze the information presented in the 2022 SNOPR and accompanying technical support document.

C. Final Rule Overview

The final rule adopts energy performance standards for new construction and major renovation of Federal buildings. The final rule adds standards for the maximum emissions resulting from on-site fossil fuel usage, language related to the purpose of these new standards, definitions associated with these standards, and a detailed process for Federal agencies petitioning for a downward adjustment from these standards to 10 CFR parts 433 (Federal commercial and multi-family high-rise residential buildings) and 435 (Federal low-rise residential buildings). The final rule adds the following provisions to 10 CFR parts 433 and 435:

Adds a paragraph to the purpose and scope provisions which states that the regulation also establishes the maximum allowable fossil fuel-generated energy consumption standard for EISA-subject Federal buildings.

Adds and revises definitions applicable to 10 CFR parts 433 and 435.

Adds subpart B that outlines the fossil fuel-generated energy consumption requirement, the process for determining a Federal building's fossil fuel-generated energy consumption, and the process for petitioning for a downward adjustment.

Adds Appendix A to Subpart B that identifies the targets for specific building types and climate zones for FY 2020–2024 and FY 2025–2029.

After considering the comments submitted in response to the 2022 SNOPR, DOE makes the following substantive revisions to the rule proposed in the 2022 SNOPR:

Revises the definitions of "construction cost" and "major

measures may include the installation of electric equipment for space and water heating, along with any insulation, ductwork, and electrical work necessary to ensure the building's needs are met.

By contrast, off-site consumption of fossil fuels, such as the combustion of natural gas and coal by distant power plants, cannot practically be eliminated through building design measures. Building design measures can reduce the amount of fossil-fuel derived electricity that a federal building draws from the grid through various efficiency measures and on-site generation. But such building design measures could not eliminate entirely the consumption of fossil-fuel derived electricity, as section 433 requires beginning in FY 2030, unless section 433 were read to require every Federal building to use on-site non-fossil generation to generate *all* of the electricity that would be used by the building. While self-generation could be achievable for some Federal facilities, for others it is not. Particularly for buildings with high energy demands and limited generation and storage space, such as high energy demand buildings with small site footprints and/or located in areas with poor solar resources, full on-site generation at all times of day could impose extreme additional expense or even be technically impracticable. DOE therefore finds it highly implausible that Congress intended that outcome in adopting the requirement to reduce and eliminate fossil fuel-generated energy consumption through the design of Federal buildings. No commenter has offered any basis to conclude that it would be reasonable to read section 433 as requiring that every new Federal building or major renovation subject to EISA be designed to generate all of its own electricity by FY 2030.

Consumers of electricity, including the Federal government, sometimes seek to reduce the use of fossil fuels in electricity generation through procurement practices, which can include directly contracting for non-fossil generation or the purchase of energy attribute certificates (EACs). These sorts of electricity procurement practices could eliminate the off-site fossil fuel consumption attributed to a building's consumption of electricity. Even so, the availability of these procurement options does not persuade DOE to conclude that section 433 should be read to cover off-site consumption of fossil fuels for two reasons. First, again, section 433 states clearly that the standards it prescribes are to be achieved through design measures in new or renovated buildings. 42 U.S.C. 6834(a)(3)(D)(i)(I) ("buildings

shall be designed so that the fossil fuel-generated energy consumption of the buildings is reduced[.]") (emphasis added). A requirement to procure electricity from particular sources or to purchase EACs is not a building design requirement. Indeed, whether a federal building manager elects to purchase electricity from one source or another has nothing to do with how the building is designed.⁹

Second, a reading that section 433 of EISA, a provision aimed at Federal building design, was also intended to encompass the procurement of electricity is hard to square with Congress' direct treatment of that subject in section 203 of the Energy Policy Act of 2005. That provision, enacted just two years earlier, required the Federal government to procure renewable energy at levels no less than three percent in fiscal years 2007 through 2009, 5 percent in fiscal years 2010 through 2012, and 7.5 percent in fiscal years 2013 and each fiscal year thereafter. 42 U.S.C. 15852. That Congress had addressed renewable energy procurement by the Federal Government in explicit terms so recently, and had set standards that differ so markedly from those in section 433, is yet another reason to disfavor a reading of section 433 that would necessitate the purchase of non-fossil fuel derived electricity as a necessary means of compliance.

Several commenters noted that the definition for "fossil fuel-generated energy consumption" proposed in the 2022 SNOPI, and the scope of the rule, differed from what was proposed in the 2010 NOPR and 2014 SNOPI. In the 2022 SNOPI, in proposing to limit the scope of the rule to only on-site energy consumption from on-site fossil fuel used by equipment and systems designed to support the building, DOE acknowledged that the proposed definition was a shift from the proposed scope of the 2014 SNOPI. 87 FR 78382, 78385. In discussing this shift, DOE observed that it received a comment in response to the 2014 SNOPI that argued that the term should only apply to the on-site energy consumption. 87 FR 78382, 78390, (see American Public Power Association (APPA), Doc. No. 71, pg. 2). After considering the comment and reviewing the relevant statutory language, DOE agreed with APPA's analysis and proposed limiting the

scope of the rule accordingly.¹⁰ Upon further review, and as proposed in the 2022 SNOPI, this final rule adopts the definition of "fossil fuel-generated energy consumption" that limits the scope of the rule to on-site energy consumption.

Commenters also stated that the 2022 SNOPI proposed definition of "fossil fuel-generated energy consumption" would have less impact and potential savings (particularly in terms of emissions) than the potential savings under the definition proposed in the 2010 NOPR and 2014 SNOPI. ASHRAE Doc. No. 96, pg. 3; BCSE Doc. No. 115, pg. 2; Gas Associations, Doc. No. 99, pg. 2; Doc. No. 122, pg. 1; Doc. No. 80, pg. 3. These commenters suggested that DOE include all or some off-site generated energy (particularly purchased electricity generated by fossil fuels) in the definition of "fossil fuel-generated energy consumption."

Regarding comments on the effects of focusing the rule on on-site energy use, DOE has further analyzed the impacts of the rule. DOE projects site energy and full fuel cycle emissions savings even when the rule is limited to on-site fossil fuel-generated energy consumption. The expected savings are shown in section V.A-C and the accompanying technical support document ("TSD"). DOE notes that the estimated benefits of the rule are derived from purchasing and installing less expensive electric equipment, along with the health and climate benefits from the associated emissions reductions, while the estimated costs come from the operation of such equipment. DOE also expects the net benefits of this rulemaking to increase over time as electricity rates decrease relative to those of natural gas and as the grid continues to shift to a cleaner mix of generation.

DOE also notes that there are other tools available to Federal agencies to reduce the use of off-site fossil fuel-generated energy, such as on-site solar and procurement of renewable EACs. Although Federal building managers can procure fossil fuel-free electricity, primarily through EACs, such procurement measures are not building design measures that reduce on-site fossil fuel-generated energy consumption.¹¹ Accordingly, requiring

¹⁰ A key attribute to the notice and comment rulemaking process is that agencies invite the public to comment on their proposed rules and agencies can benefit from this feedback. Accordingly, agencies may revise their proposed rules based the feedback they received.

¹¹ Additionally, at the design stage, the agency controlling the design process would not necessarily be able to guarantee that the building occupant would, in fact, procure the EACs that

⁹ Further, depending on the geographic location, building managers have limited discretion to elect the source from which they procure electricity. Federal agencies (with limited exceptions) must procure utility services from their serving utility, which may not sell non-fossil fuel derived electricity. See 40 U.S.C. 501 & 591; FAR Part 41.

such actions are outside the scope of DOE's authority under section 433 of EISA. Further, Congress did not give clear authority for fossil fuel-free electricity procurement under section 433 of EISA, as it did under the Energy Policy Act of 2005, which set forth the total electricity from renewable sources that must be procured by the Federal government (see 42 U.S.C. 15852). Therefore, although there are means to reduce emissions from the electricity use in buildings, which DOE encourages agencies to pursue, this final rule only requires building design measures to reduce the use of on-site fossil fuel-generated energy.

Commenters also argued that the rule's proposed focus on the use of on-site fossil fuel-generated energy is a departure from DOE's general position of fuel neutrality. AGA, Doc. No. 100, pg. 9; Gas Associations, Doc. No. 99, pg. 2 n.8. These commenters cite rulemakings related to the energy conservation program for certain consumer and commercial appliances under the Energy Policy and Conservation Act (EPCA). 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). In applying that standard, DOE considers the improvement in energy efficiency feasible and justified for electric products separately from gas- or oil-fueled products, consistent with 42 U.S.C. 6295(q)(1)(A), which required establishment of a separate standard for any covered products that "consume a different kind of energy from that consumed by other covered products within" the regulated type of products.

In contrast, the language of section 433 is clearly not "fuel neutral," as the text singles out and disfavors fossil fuels relative to other sources of energy. Further, as discussed above, the language and structure of the statutory text strongly support limiting the scope of the requirement to just the use of on-site fossil fuel-generated energy. Accordingly, the specific applicable statutory text here requires a departure from the fuel neutral approach that DOE uses when setting energy conservation standards for certain consumer and commercial appliances under EPCA.

After further considering the proposed approach in light of the comments received, DOE determines that focusing on direct emissions best

aligns with section 433's directive to reduce and ultimately eliminate fossil fuel-generated energy consumption through building design measures of Federal buildings.

The final rule adopts the definition of "fossil fuel-generated energy consumption" as proposed in the 2022 SNOFR, with three revisions. First, the final rule revises the term to be defined from "Scope 1 fossil fuel-generated energy consumption" to "fossil fuel-generated energy consumption." This clarifies that the scope of this rule aligns with the directive in section 433 of EISA. Second, the final rule revises the definition so that it applies to "on-site stationary consumption" of fossil fuels. This revision uses language that is consistent with section 433 and clarifies that the definition includes the on-site consumption of natural gas. Third, the final rule deletes, "for the purposes of this final rule" from the definition because this language is not necessary.

b. Exemptions and Exceptions

As proposed in the 2022 SNOFR, not all Scope 1 emissions are included under this final rule. DOE identifies several on-site uses that are exempted or excepted from this final rule. First, the standards only apply to on-site fossil fuel use or Scope 1 emissions from stationary combustion sources. Again, section 433 of EISA requires that certain new Federal buildings and Federal buildings undergoing major renovations be designed to reduce fossil fuel-generated energy consumption. As such, this rule does not apply to emissions associated with natural gas for alternatively fueled vehicles ("AFVs") (or any other "alternative fuel," defined at 42 U.S.C. 13211) because building design measures do not include use of AFVs. In addition, DOE notes that because the CBECS and RECS data that provide the energy use targets for this rule do not contain manufacturing or industrial process loads, DOE excludes these loads from the scope of the energy performance standards at this time. For buildings with such process loads, the process loads will need to be accounted for in the analysis of the building's fossil fuel consumption and GHG emissions, but such loads would not be subject to the percentage reductions in fossil fuel-generated energy consumption (Scope 1 GHG emissions) required for the building related loads as related to this rule.

Second, this final rule does not apply to the on-site consumption of fossil fuel (or the subsequent emissions) from energy generation associated with the supply of emergency backup electricity. Again, section 433 of EISA requires

building design measures for certain Federal buildings to reduce fossil fuel-generated energy consumption. Thus, this rule is focused on the use of on-site energy as *designed* for standard building operations. Emergency backup generation is generally used infrequently and for short periods, for emergency services only when Federal buildings are not operating as designed. In addition, given their limited use, the impact from emergency backup generators, in terms of both direct fossil fuel consumption and emissions, is usually quite small relative to the impact from ongoing building operations. However, *non-emergency* generation from backup generators (such as those for peak shaving or peak shifting) is within the scope of this rule. DOE also notes that if Federal agencies use their backup generators for both purposes, they will be required to calculate the fraction of their backup generator emissions that is associated with emergency use and the fraction associated with non-emergency use.

Third, the final rule does not apply to on-site energy generation or Scope 1 emissions associated with biomass fuels because biomass fuels are not fossil fuels. Because EISA directed DOE to establish regulations that require fossil fuel-generated energy consumption reductions, and biomass is not a fossil fuel, DOE has intentionally left biomass fuels out of the CBECS and RECS targets developed for this rule. DOE acknowledges that guidance from the Council on Environmental Quality¹² takes a somewhat different approach on biomass fuels, but DOE believes CEQ's guidance is complementary to this final rulemaking. CEQ's guidance states that the CO₂ emissions from biomass and biofuel combustion are considered biogenic and are reported separately from fossil fuel-generated GHGs and biomass and biofuel-generated CH₄ and N₂O. This CEQ guidance ensures that any GHG emissions associated with biomass or biofuel use at a covered Federal building are still taken into account in reporting emissions (though reported separately). This rule does not cover such fuels, however, as they are not fossil fuel derived and therefore fall outside the statutory authority.

DOE received numerous comments on the exemptions and exceptions included in the final rule. These comments ranged from supporting limiting the application of the standards to stationary combustion sources and the exemptions for emergency backup

would be necessary to meet the applicable fossil fuel energy standards.

¹² Federal Greenhouse Gas Accounting and Reporting Guidance," Council on Environmental Quality (CEQ), January 17, 2016 (CEQ's guidance).

generators¹³ and the exception of biomass fuels, to urging DOE to adopt additional exemptions or opposing some of the exemptions.

Two commenters opposed exempting backup generators from the final rule. CHP Alliance and MRC both noted that emergency backup generators run on fossil fuel. CHP Alliance, Doc. No. 104, pg. 4; MRC, Doc. No. 105, pg. 8. MRC also stated that that emergency backup generators must run on a regular basis to keep them in good operating condition.¹⁴ CHP Alliance argued that reducing GHG emissions from this type of fossil fuel-generated energy consumption is the purpose of section 433 of EISA. CHP Alliance, Doc. No. 104, pg. 4. Thus, these commenters argued, exempting backup generators is counter to the entire purpose of the final rule.

DOE notes that although this rule exempts emergency backup systems, this exemption is limited to when these generators are used solely for emergencies. Therefore, any use of these backup generators for peak shaving, peak shifting, or other demand management activities must be included in the building energy consumption.

An individual commenter urged DOE to reconsider the exception for emissions resulting from biomass fuel. Doc. No. 79, pg. 3. Although this commenter acknowledged that biomass fuel is not fossil fuel-based, the commenter argued that the rule should apply to biomass fuels because they still emit GHG. *Id.* However, as previously noted, biomass fuels are not fossil fuels. Because EISA directed DOE to establish regulations that require Federal agencies to reduce their fossil fuel-generated energy consumption, and biomass fuels are not fossil fuel-based, Congress intentionally excluded biomass fuels from the targets developed for this rule.

DOE received several comments urging DOE to exclude renewable fuels such as biomethane (renewable natural gas), biopropane (renewable propane), and clean hydrogen from the final rule. AGA and NPGA stated that it is appropriate for DOE to exclude biomass fuels from this rule, but argued that DOE should also consider excluding other renewable fuels. AGA, Doc. No. 100, pg. 32–34; NPGA, Doc. No. 90, pg. 8; see WGL, Doc. No. 101, pg. 6. Specifically, AGA and NPGA noted that there have been developments in the production of synthetic hydrocarbon. AGA, Doc. No. 100, pg. 32–34; NPGA, Doc. No. 90, pg.

8. Similarly, CHP Alliance observed that combined heat and power (CHP) systems are extremely efficient and some approach 90-percent efficiency. CHP Alliance, Doc. 104, pg. 5.

DOE acknowledges that purely renewable fuels would not fall within the scope of this rulemaking as long as they are not fossil fuel-based or made from blends that contain fossil fuels. A Federal building may use renewable fuels if the Federal agency is able to verify the use of such fuels on-site do not also include fossil fuels in their mixture. Additional specification about fuel content of biofuels will be provided in a companion implementation guidance.

DOE also received several comments on the NOPR and the 2014 SNOBR about differentiating between fossil fuels used to generate purchased electricity (*i.e.*, natural gas versus crude oil). DOE notes that because the rule is now focused on on-site fossil fuel use only, these comments no longer apply. DOE acknowledges that the source emission factors related to electricity are used in DOE's analysis of the impacts of the rule and notes that DOE will use the latest available source emission factors from DOE and EPA.

DOE also received several comments on the treatment of distributed energy resources (DERs) in the 2022 SNOBR suggesting that DOE treat DERs as a "Scope 2" impact and, thus, exempt DERs from these standards. These commenters argued that because emissions from DERs are considered Scope 2 emission for reporting purposes, these emissions should also be considered as Scope 2 emissions for the purposes of this rule.

DOE does not agree with this interpretation because the energy generated by DERs is generated on-site and is consumed directly by one building. Accordingly, the energy consumed by building processes supplied by DERs and generated from fossil fuels falls within the definition of "fossil fuel-generated energy consumption." When an EISA subject building is connected to an existing DER resource that is located off the building site and is servicing more than one building it may then be treated as energy generated off-site and the energy stream would not be subject to this rule. New DER resources, when qualified as an EISA-subject building, would be subject to this final rule. Additionally, DOE notes that the terms "Scope 1" and "Scope 2" are more commonly utilized when performing GHG emissions calculations and reporting. Here, DOE uses these terms to help describe the scope of building energy use covered by

this rule (as discussed in Section III.A). The statutory authority for this rulemaking is based upon the fossil fuel consumption of the energy source and systems that service an applicable building, and the building must be subject to the reduction targets, regardless of how subsequent emissions may be accounted.

B. Performance Standards for Fossil Fuel-Generated Energy Consumption

To provide flexibility, the final rule establishes standards for a fossil fuel-generated energy consumption metric expressed in thousand British thermal units ("kBtu") per square foot ("ft²") of building gross area and provides an equivalent conversion of the energy metric measured in greenhouse gas ("GHG") metrics. DOE opted to include the GHG metric, which will measure Scope 1 emissions, because agencies are already required to track and report their GHG emissions annually utilizing CEQ's guidance. The final rule aligns the quantifications and terminologies with those established in the Federal Greenhouse Gas Accounting and Reporting Guidance. Although CEQ's guidance categorizes Scope 1 emissions as "Generation of electricity, heat, cooling, or steam", "Mobile sources", "Fugitive emissions", or "Process emissions," this final rule focuses only on the on-site fossil fuel use associated with the "Generation of electricity, heat, cooling, or steam".

This final rule provides agencies with two separate but equivalent sets of fossil fuel generated energy consumption targets—(1) fossil fuel-generated energy consumption based on a summation of on-site fossil fuel usage expressed in kBtu per ft² of building gross area, and (2) a new carbon dioxide equivalent ("CO₂e") per ft² metric based on the emissions associated with the on-site fossil fuel-generated energy consumption. Agencies may use either metric for their design targets. The CO₂e metric is based upon the stationary combustion of natural gas and is most appropriate when that is the only fossil fuel being utilized. When a building is burning fuels other than standard natural gas, it would be most appropriate to use the on-site fossil fuel energy metric in units of kBtu per ft² of building gross area.

To develop these fossil fuel generated energy consumption targets, DOE utilized CBECS and RECS data to determine the on-site fossil fuel usage by fossil fuel type for each building type in CBECS or RECS. The CBECS and RECS data was parsed into the format commonly utilized by DOE to evaluate building energy codes and standards,

¹³ WGL, Doc. No. 101, pg. 5.

¹⁴ MRC, Doc. No. 105, pg. 8. MRC asserted that this results in approximately 0.79 metric tons of GHG per MWh of backup supply.

evaluations. For component-level major renovations, DOE will allow bundling petitions that are of the same component and building type. DOE will provide more specific details on the bundling process and criteria in the accompanying implementation guidance.

4. GSA Tenant Agencies

ECPA, as amended, precludes GSA from petitioning DOE for a downward adjustment of the applicable percentage reduction requirement. 42 U.S.C. 6834(a)(3)(D)(i)(II). In the 2022 SNOPIR, DOE noted although ECPA prohibits GSA from petitioning DOE for a downward adjustment, it makes no reference to GSA tenant agencies. 87 FR 78382, 78396. DOE stated that allowing GSA tenant agencies to submit a petition for downward adjustment will provide an option for some buildings for which the required fossil fuel-generated energy consumptions reductions may be technically impracticable in light of the building's functional needs, but for which GSA may not submit a petition. *Id.* In the 2022 SNOPIR, DOE proposed that for construction of a new Federal building or major renovations of a federal building, if a GSA tenant agency is providing substantive and significant design criteria in the design process, the tenant agency may petition DOE for a downward adjustment of the applicable percentage reduction requirements. *Id.*

DOE received one comment on this topic in response to the 2022 SNOPIR. ACEEE *et al.* commented that DOE may not allow GSA tenant agencies to petition for downward adjustments because ECPA specifically excludes GSA from the downward adjustment petition process. ACEEE *et al.*, Doc. No. 126, pg. 4. They stated that allowing GSA tenant agencies to petition DOE for downward adjustment would expand the number of buildings eligible for such adjustments in a manner that directly contravenes the ECPA. *Id.*

DOE reiterates that although the statute prohibits GSA from petitioning DOE for a downward adjustment, it makes no reference to GSA tenant agencies. The statute allows for an "agency" to petition for a downward adjustment. The term "Federal agency" means any department, agency, corporation, or other entity or instrumentality of the executive branch of the Federal Government, including the United States Postal Service, the Federal National Mortgage Association, and the Federal Home Loan Mortgage Corporation. 42 U.S.C. 6832(5). As the ACEEE notes, the statute only prohibits GSA from submitting a petition. Thus, in cases in which the GSA tenant

agency exercises significant control of design choices in the building, and GSA does not, it makes little sense to prohibit the GSA tenant agency from petitioning for a downward adjustment if such a prohibition is not required by statute. Moreover, these petitions are still subject to the same criteria and review process as other petitions, including that meeting the requirement would be technically impracticable, which is defined as achieving the fossil fuel-based energy consumption targets would (1) not be feasible from an engineering design or execution standpoint due to existing physical or site constraints that prohibit modification or addition of elements or spaces; (2) significantly obstruct building operations and the functional needs of a building, specifically for industrial process loads, critical national security functions, mission critical information systems as defined in NIST SP 800-60 Vol. 2 Rev. 1, and research operations; or (3) significantly degrade energy resiliency and energy security of building operations as defined in 10 U.S.C. 101(e)(6) and 10 U.S.C. 101(e)(7) respectively. DOE does not expect that GSA tenant agencies would commonly be able to make such showings for the more generic types of buildings typical of GSA's holdings. Rather, DOE expects this petition process to be applied in the rare situations where building design needs specific to a GSA tenant agency's unique situation make application of the percentage reduction requirements technically impracticable.

5. Petitions Submitted by the Department of Defense

DOE also considered whether it should have a separate petition process for Department of Defense or other agency projects that serve critical national security functions whereby classified or sensitive information can be withheld, and such petitions will not be subject to public disclosure.

Two commenters stated that DOE should not have a separate petition process for buildings serving national security functions. An individual commenter argued that instead of exempting buildings with national security risks, the Federal government must navigate and balance these national security challenges with policies to reduce fossil fuel-generated energy consumption. Doc. No. 81, pg. 2. Similarly, ACEEE *et al.* commented that buildings serving national security functions must be subject to the same petition review process and policies as other Federal buildings. ACEEE *et al.*, Doc. No. 126, pg. 5.

DOE agrees that there will be no blanket exemptions for national security sites. Section 433(a) of EISA does not provide an exemption from the standard for national security. For some buildings, it may be technically impracticable to achieve the consumption targets so the petition process may be appropriate.¹⁶ Each agency must provide a petition if they believe their facility cannot meet the statutory requirements due to technical impracticability. DOE intends to review all petitions using the same process. DOE believes the petition process will sufficiently vet buildings and agencies' proposed reasoning as to why achieving the reductions will be technically impracticable.

In addition, DOE is sensitive to classification issues and will work with agencies to ensure that sensitive information is treated appropriately. DOE also recognizes that agencies may need flexibility in defining what buildings or projects serve critical national security functions, and that a pending petition may delay projects that serve critical national security functions. DOE intends to work closely with agencies pertaining to petitions for projects with critical national security functions as part of its implementation guidance following publication of the rule.

D. Definitions

The final rule adds definitions for "construction cost," "design for renovation," "EISA-subject building or project," "Federal building," "Fiscal year (FY)," "Fossil fuel-generated energy consumption," "Major renovation," "Major renovation cost," "Major renovation of all Scope 1 fossil fuel-using systems," "Major renovation of a Scope 1 fossil fuel-using building system or component," "Multi-family high-rise residential building," "Shift adjustment multiplier," and "Technical impracticability," and it revises the definition for "proposed building" to 10 CFR 433.2 and 10 CFR 435.2. Any comments relating to specific definitions have been previously discussed in Section III. In addition to

¹⁶ The definition of "technical impracticability" in this rule is defined as achieving the fossil fuel-based energy consumption targets would (1) not be feasible from an engineering design or execution standpoint due to existing physical or site constraints that prohibit modification or addition of elements or spaces; (2) significantly obstruct building operations and the functional needs of a building, specifically for industrial process loads, critical national security functions, mission critical information systems as defined in NIST SP 800-60 Vol. 2 Rev. 1, and research operations; or (3) significantly degrade energy resiliency and energy security of building operations.

the substantive edits to the definitions of “construction cost,” “fossil fuel-generated energy consumption,” and “major renovation cost,” discussed previously, DOE also makes minor revisions to the definitions of “EISA-subject building or project,” “Federal building,” “fiscal year (FY),” “major renovation,” and “technical impracticability” to remove unnecessary language or to provide clarification. These minor revisions do not change the nature of the definitions proposed in the 2022 SNOPIR.

IV. Additional Issues Raised by Commenters

A. Authority

AGA argued in its comments that DOE’s authority to promulgate performance standards to reduce emissions from fossil fuel-generated energy consumption expired in December 2008.¹⁷ AGA noted that section 433 of EISA directs DOE to establish by rule revised Federal building energy efficiency performance standards for both new Federal buildings and for Federal buildings undergoing major renovations, “[n]ot later than 1 year after December 19, 2008.” AGA, Doc. No. 100, pg. 4. Because “agencies may act only when and how Congress lets them [.]” AGA asserted that DOE’s authority to establish these standards has lapsed. *Id.*, pg. 5 (citing *Cent. United Life Ins. Co. v. Burwell*, 827 F.3d 70, 73 (D.C. Cir. 2016)). However, the Supreme Court of the United States has routinely held that unless a statute specifies a consequence for noncompliance with a statutory deadline, an agency’s obligation does not disappear when a statutory deadline passes. *United States v. James Daniel Good Real Prop.*, 510 U.S. 43, 63 (1993); see *Barnhart v. Peabody Coal Co.*, 537 U.S. 149, 159 (2003); *Regions Hosp. v. Shalala*, 522 U.S. 448, 459 n.3 (1998). The EISA does not specify any consequence for noncompliance with its deadlines.

B. APA Concerns

Two commenters raised procedural concerns related to the 2022 SNOPIR. First, APGA expressed concern that stakeholders were deprived from meaningfully commenting on the 2022 SNOPIR. APGA, Doc. No. 102, pg. 9. APGA argued that interested parties needed additional time to review the 2022 SNOPIR because the rule proposed marked a significant departure from the

previous proposed rules. *Id.* In addition, APGA stated that DOE failed to provide a timely copy of the transcript of the January 5, 2023, public meeting, and, as a result, stakeholders that were not able to attend the meeting were unable to review the relevant docket materials. *Id.*

DOE notes that it granted the requests from stakeholders for a 30-day extension of the public comment period. 88 FR 12267. As a result, interested parties had 90 days to review the 2022 SNOPIR. Multiple parties used this period as an opportunity to file revised comments. See e.g., ASHRAE, Doc. Nos. 96 and 113, Business Council for Sustainable Energy, Doc. Nos. 87 and 115, and joint comments from local officials, Doc. Nos. 94 and 125.

In addition, a copy of the transcript of the January 5, 2023, public meeting is on the docket web page for this rulemaking. Although the transcript was posted after the initial 60-day comment period closed, it was available when DOE re-opened the comment period for an additional 30 days, providing sufficient time for parties to review and comment on that material in the docket.

V. Methodology, Analytical Results, and Conclusion

This final rule implements fossil fuel reduction targets established under EISA, which will begin to reduce GHG emissions in the near term and prepare Federal buildings for a clean energy future. By ensuring that Federal buildings are designed—either from the ground up, or when being renovated—to reduce fossil fuel use, the rule ensures that long-term, as the electric grid integrates more carbon free energies, emissions will be reduced. DOE recognizes that exchanging on-site fossil fuel generated energy for increased reliance on the electric grid, which may still be generating energy with fossil fuels, will not in every application lead to an immediate reduction in emissions of GHGs and SO₂ and in some cases could result in some increase in energy costs. This is explored in more detail in Chapter 1. Section 1.8 of the technical support document by examining the overall sensitivity of the rule to future grid cleaning scenarios. However, agencies must make decisions for the long-term, making capital investments today which will have lasting impacts well into the future, resulting in net benefits over the time and the life of the asset. Net benefits will increase significantly as the grid incorporates cleaner sources of electricity, as illustrated by the supporting technical analysis. In addition, DOE expects emerging and improving technological advancements

in electric equipment, such as heat pumps, will lead to additional and dramatic site energy savings, further improving the emissions and cost savings cases for this rule.

A. Cost-Effectiveness

DOE conducted an Environmental Assessment (EA) for this final rulemaking.¹⁸ In addition, DOE referenced a previous technical analysis conducted by the DOE Building Energy Codes Program that evaluated the energy and cost savings impacts, as well as cost effectiveness, of Standard 90.1–2019.¹⁹ As described in the EA, DOE identified a rate of new Federal commercial construction of 13.3 million square feet per year, with a distribution of building types as shown in Table V–1. Starting in 2030, section 205(c)(ii) of Executive Order 14057, “Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability” (December 8, 2021), requires agencies to “design new construction and modernization projects greater than 25,000 gross square feet to be net-zero emissions by 2030.” This effectively reduces the impact of this rule to apply to new construction and major renovation projects that fall above the cost threshold but are also below 25,000 gross square feet. For the year 2030 and beyond, DOE estimated new Federal commercial and multi-family high-rise residential building construction volume will be 2.2 million square feet per year, with a distribution of building types as shown in Table V–2. The distribution of building types is based on an extraction of the latest 10 years of new construction data entered into the Federal Real Property Portfolio Management System (“FRPP MS”) that meets the required cost threshold of the final rule for cases both before and after the 25,000 Sf minimum triggering E.O. 14057 compliance.²⁰

Additionally, DOE identified an estimated rate of Federal major renovation projects that would be influenced by this rule. To do so, DOE utilized data from the Federal

¹⁸ The Environmental Assessment (EA) (DOE/EA–2165) is entitled, “Environmental Assessment for Final Rule, 10 CFR part 433, ‘Energy Efficiency Standards for New Federal Commercial and Multi-Family High-Rise Residential Buildings’ Baseline Standards Update.” The EA may be found in the docket for this rulemaking and at www.energy.gov/node/472482.

¹⁹ See DOE’s analysis of the cost savings of the 2016 and 2019 ASHRAE 90.1 Standards at www.energycodes.gov/sites/default/files/2020-07/90.1-2016_National_Cost-Effectiveness.pdf and www.energycodes.gov/sites/default/files/2021-07/90.1-2019_National_Cost-Effectiveness.pdf, respectively.

²⁰ See www.realpropertyprofile.gov/FRPPMS/FRPP_Login.

¹⁷ AGA, Doc. No. 100, pg. 4. NPGA supported AGA comments with respect to “the questionable foundation on which this rulemaking was proposed.” NPGA, Doc. No. 99, pg. 7.

^{††} Negative number indicates an increased cost to building owners, driven primarily by higher relative cost of electricity compared to natural gas.

DOE's analysis of the national impacts of the final standards is described in sections V.B. and V.C of this document.

DOE's analysis is sensitive to how emission factors per unit of grid electricity purchased change over time. The base case presented in this rulemaking utilizes emission factors obtained through AEO 2023. AEO 2023 reflects, to the extent possible, laws and regulations adopted through mid-November 2022, including the Inflation Reduction Act (IRA). This is consistent with the methodology used in other rulemakings (including the efficiency portions for the analysis behind 10 CFR parts 433 and 435) and representative of an expected or "business as usual" case. However, AEO 2023 does not fully account for President Biden's goal to achieve 100-percent carbon pollution-free electricity by 2035. Such accelerated clean grid scenarios significantly impact the overall emissions profile of the rule allowing for more climate benefits sooner in the lifecycle of the expected projects.

Results and details for a 100-percent reduction by 2035 case are presented in the TSD. As noted previously, alternative cases are presented to show the emissions and climate impacts of this rule in accelerated clean grid scenarios that may flow from recent legislation and Administration priorities, but that are not represented in the base case utilizing AEO 2023 (the "business as usual" case).

DOE's analysis of the impacts of the final regulation on Federal agencies is described in section V.A, Cost Effectiveness, of this document.

B. Review Under the Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires preparation of an initial regulatory flexibility analysis ("IRFA") for any rule that by law must be proposed for public comment, unless the agency certifies that the rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. As required by E.O. 13272, "Proper Consideration of Small Entities in Agency Rulemaking," 67 FR 53461 (Aug. 16, 2002), DOE published procedures and policies on February 19, 2003, to ensure that the potential impacts of its rules on small entities are properly considered during the rulemaking process. 68 FR 7990. DOE has made its procedures and policies available on the Office of the General

Counsel's website (www.energy.gov/gc/office-general-counsel).

In the 2022 SNOPR, DOE stated that the proposed rule only applies to the fossil fuel-generated energy consumption of new Federal buildings and Federal buildings undergoing major renovations. 87 FR 78382, 78417. Thus, the only entities directly regulated by this rulemaking would be Federal agencies. *Id.* Accordingly, DOE determined that an IRFA was not required. *Id.*

APGA claimed that DOE erred in its determination that the rule would not have a significant economic impact on a substantial number of small businesses. APGA, Doc. No. 102, pg. 5. APGA asserted most of its members are small businesses. *Id.* APGA stated that "[r]educing fossil fuels to zero will certainly impact the load and revenue of many public gas systems across the country." *Id.* Thus, APGA argued that the rule would have a significant economic impact on a substantial number of small businesses and DOE must prepare an IRFA or withdraw the 2022 SNOPR. *Id.*

This final rule applies only to the fossil fuel-generated energy consumption of new Federal buildings and Federal buildings undergoing major renovation. As such, the only entities directly regulated by this rulemaking would be Federal agencies. Under the Regulatory Flexibility Act, an "agency may properly certify that no regulatory flexibility analysis is necessary when it determines that the rule will not have a significant economic impact on a substantial number of small entities that are subject to the requirements of the rule." *Mid-Tex Elec. Co-op., Inc. v. FERC*, 773 F.3d 327, 342 (D.C. Cir. 1985) (emphasis added); see *Cement Kiln Recycling Coalition v. EPA*, 255 F.3d 855, 870 (holding that the Regulatory Flexibility Act does not apply to small businesses indirectly affected by regulation of other entities).

On the basis of the foregoing, DOE certifies that this final rule will not have a significant economic impact on a substantial number of small entities. Accordingly, DOE has not prepared a regulatory flexibility analysis for this rulemaking. DOE's certification and supporting statement of factual basis was provided to the Chief Counsel for Advocacy of the Small Business Administration pursuant to 5 U.S.C. 605(b).

C. Review Under the Paperwork Reduction Act

This final rule will impose no new information or record keeping requirements. Accordingly, OMB clearance is not required under the Paperwork Reduction Act. 44 U.S.C. 3501 *et seq.*

D. Review Under the National Environmental Policy Act of 1969

DOE prepared a draft Environmental Assessment (EA) (DOE/EA-1778) entitled, "Environmental Assessment for Supplemental Notice of Proposed Rulemaking, 10 CFR parts 433 and 435, 'Clean Energy for New Federal Buildings and Major Renovations of Federal Buildings,'" pursuant to the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) (40 CFR parts 1500-1508), NEPA, as amended (42 U.S.C. 4321 *et seq.*), and DOE's NEPA Implementing Procedures (10 CFR part 1021).

This draft EA addressed the possible environmental effects attributable to the implementation of this final rule. The draft EA stated that the rule, by its fundamental intent, would have a positive impact on the environment and the anticipated impacts of this rulemaking would be an overall decrease in CO₂ equivalent gases (despite modest increases in base CO₂ and N₂O emissions, CH₄ emission reductions result in net savings) with an additional decrease in NO_x emission and an increase in SO₂ emissions resulting from reduced fossil fuel-generated energy consumption in new Federal buildings and major renovations of Federal buildings but increased electric purchases from the grid. In the draft EA, DOE concluded that the new Federal buildings designed and constructed and major renovations of Federal buildings designed and completed to be compliant with the proposed rule would not have a significant environmental impact.

DOE posted this draft EA on its Office of NEPA Policy and Compliance website on December 7, 2022.⁵¹ The draft EA requested interested parties to submit comments by December 22, 2022. No comments were received.

DOE recently updated its analysis to include data made available since it prepared the draft EA. DOE again

⁵¹ Available at www.energy.gov/nepa/articles/doeca-2183-draft-environmental-assessment.

agency in writing whether the petition for downward adjustment to the numeric reduction requirement is approved or rejected, in 30 calendar days of submittal, provided that the petition is complete. If the Director rejects the petition or establishes a value other than that presented in the petition, the Director will forward its reasons for rejection to the petitioning agency.

(b) *Exclusions.* The General Services Administration (GSA) may not submit petitions under paragraph (a) of this section. Agencies that are tenants of GSA buildings for which the agency, not GSA, has significant design control may submit petitions in accordance with this section.

Appendix A to Subpart B of Part 433— Maximum Allowable Scope 1 Fossil Fuel-Generated Energy Consumption

(a) For purposes of the tables in this appendix, the climate zones are the same as those listed in the performance standards required by § 433.100(a)(5)(i).

(b) For purpose of appendix A, the following definitions apply:

(1) *Education* means a category of buildings used for academic or technical classroom instruction, such as elementary, middle, or high schools, and classroom buildings on college or university campuses. Buildings on education campuses for which the main use is not as a classroom are

included in the category relating to their use. For example, administration buildings are part of “Office,” dormitories are “Lodging,” and libraries are “Public Assembly.”

(2) *Food sales* means a category of buildings used for retail or wholesale of food. For example, grocery stores are “Food Sales.”

(3) *Food service* means a category of buildings used for preparation and sale of food and beverages for consumption. For example, restaurants are “Food Service.”

(4) *Health care (Inpatient)* means a category of buildings used as diagnostic and treatment facilities for inpatient care.

(5) *Health care (Outpatient)* means a category of buildings used as diagnostic and treatment facilities for outpatient care. Medical offices are included here if they use any type of diagnostic medical equipment (if they do not, they are categorized as an office building).

(6) *Laboratory* means a category of buildings equipped for scientific experimentation or research as well as other technical, analytical and administrative activities.

(7) *Lodging* means a category of buildings used to offer multiple accommodations for short-term or long-term residents, including skilled nursing and other residential care buildings.

(8) *Mercantile (Enclosed and Strip Malls)* means a category of shopping malls comprised of multiple connected establishments.

(9) *Multi-Family High-Rise Residential Buildings* means a category of residential

buildings that contain 3 or more dwelling units and that is designed to be 4 or more stories above grade.

(10) *Office* means a category of buildings used for general office space, professional office, or administrative offices. Medical offices are included here if they do not use any type of diagnostic medical equipment (if they do, they are categorized as an outpatient health care building).

(11) *Public assembly* means a category of public or private buildings, or spaces therein, in which people gather for social or recreational activities.

(12) *Public order and safety* means a category of buildings used for the preservation of law and order or public safety.

(13) *Religious worship* means a category of buildings in which people gather for religious activities, (such as chapels, churches, mosques, synagogues, and temples).

(14) *Retail (Other Than Mall)* means a category of buildings used for the sale and display of goods other than food.

(15) *Service* means a category of buildings in which some type of service is provided, other than food service or retail sales of goods.

(16) *Warehouse and storage* means a category of buildings used to store goods, manufactured products, merchandise, raw materials, or personal belongings (such as self-storage).

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Table A-1a – FY 2020-FY 2024 Maximum Allowable Fossil Fuel-Generated Energy Consumption by Building Category, Building Type and Climate Zone, Commercial Buildings and Multi-Family High-Rise Residential Buildings (CO₂/yr-sqft)

Building Category	Climate Zone:	0A	0B	1A	1B	2A	2B	3A	3B	3C	4A	4B	4C	5A	5B	5C	6A	6B	7	8
	Building Type	Fossil Fuel-Generated Energy Use Intensity (CO ₂ /yr-sqft)																		
	professional office																			
Office	Bank/other financial	0.18	0.19	0.20	0.24	0.30	0.28	0.40	0.36	0.40	0.53	0.50	0.52	0.66	0.62	0.56	0.76	0.77	0.90	1.19
Office	Government office	0.31	0.31	0.33	0.40	0.50	0.47	0.67	0.60	0.67	0.88	0.84	0.87	1.10	1.04	0.93	1.27	1.28	1.50	2.00
Office	Medical office (non-diagnostic)	0.34	0.35	0.37	0.45	0.56	0.52	0.74	0.66	0.74	0.97	0.94	0.96	1.22	1.15	1.03	1.41	1.42	1.66	2.21
Office	Mixed-use office	0.26	0.27	0.28	0.34	0.43	0.40	0.58	0.51	0.58	0.75	0.72	0.74	0.94	0.89	0.80	1.10	1.10	1.29	1.72
Office	Other office	0.40	0.40	0.43	0.52	0.65	0.61	0.86	0.77	0.87	1.13	1.09	1.12	1.42	1.34	1.20	1.64	1.65	1.93	2.58
Outpatient Health Care	Clinic/other outpatient health	0.25	0.25	0.27	0.33	0.41	0.38	0.55	0.49	0.55	0.71	0.69	0.71	0.90	0.84	0.76	1.04	1.04	1.22	1.63
Outpatient Health Care	Medical office (diagnostic)	0.27	0.27	0.29	0.35	0.44	0.41	0.58	0.52	0.59	0.77	0.74	0.76	0.96	0.90	0.81	1.11	1.12	1.31	1.74
Public Assembly	Entertainment/culture	0.20	0.20	0.21	0.25	0.32	0.30	0.43	0.38	0.43	0.56	0.54	0.55	0.70	0.66	0.59	0.81	0.81	0.95	1.27
Public Assembly	Library	0.23	0.24	0.25	0.30	0.38	0.36	0.51	0.45	0.51	0.67	0.64	0.66	0.83	0.79	0.70	0.97	0.97	1.14	1.51
Public Assembly	Other public assembly	0.23	0.24	0.25	0.31	0.38	0.36	0.51	0.46	0.51	0.67	0.64	0.66	0.84	0.79	0.71	0.97	0.97	1.14	1.52
Public Assembly	Recreation	0.24	0.24	0.26	0.31	0.39	0.37	0.53	0.47	0.53	0.69	0.66	0.68	0.86	0.81	0.73	1.00	1.00	1.17	1.57
Public Assembly	Social/meeting	0.30	0.30	0.32	0.39	0.49	0.46	0.65	0.58	0.65	0.85	0.82	0.84	1.06	1.00	0.90	1.23	1.24	1.45	1.93
Public Order & Safety	Fire station/police station	0.54	0.55	0.58	0.70	0.88	0.83	1.17	1.05	1.18	1.54	1.48	1.52	1.93	1.82	1.63	2.23	2.25	2.62	3.50
Public Order & Safety	Other public order and safety	0.26	0.27	0.29	0.35	0.43	0.40	0.58	0.52	0.58	0.75	0.73	0.74	0.95	0.89	0.80	1.10	1.10	1.29	1.72
Religious Worship	Religious worship	0.24	0.24	0.26	0.31	0.39	0.37	0.52	0.47	0.52	0.68	0.66	0.67	0.85	0.81	0.72	0.99	1.00	1.16	1.55
Retail (except malls)	Other retail	0.40	0.40	0.43	0.52	0.65	0.61	0.86	0.77	0.86	1.13	1.09	1.12	1.42	1.34	1.20	1.64	1.65	1.93	2.57
Retail (except malls)	Retail store	0.01	0.01	0.04	0.11	0.22	0.18	0.40	0.32	0.40	0.62	0.58	0.61	0.85	0.79	0.67	1.04	1.05	1.28	1.81
Retail (except malls)	Vehicle dealership/showroom	0.56	0.57	0.60	0.73	0.91	0.86	1.22	1.09	1.22	1.60	1.54	1.58	2.00	1.89	1.69	2.32	2.33	2.72	3.63
Service	Other service	0.58	0.59	0.63	0.76	0.95	0.89	1.27	1.13	1.27	1.66	1.60	1.64	2.08	1.96	1.76	2.41	2.42	2.83	3.78

Building Category	Climate Zone:		0A	0B	1A	1B	2A	2B	3A	3B	3C	4A	4B	4C	5A	5B	5C	6A	6B	7	8
	Building Type																				
	Fossil Fuel-Generated Energy Use Intensity (CO ₂ /yr-sqft)																				
Service	Post office/postal center	0.24	0.25	0.26	0.32	0.40	0.37	0.53	0.47	0.53	0.69	0.67	0.69	0.87	0.82	0.73	1.01	1.01	1.19	1.58	
Service		0.18	0.18	0.20	0.24	0.30	0.28	0.40	0.35	0.40	0.52	0.50	0.51	0.65	0.61	0.55	0.75	0.76	0.89	1.18	
Service	Vehicle repair shop	0.37	0.37	0.39	0.48	0.60	0.56	0.80	0.71	0.80	1.04	1.00	1.03	1.31	1.23	1.10	1.51	1.52	1.78	2.37	
Service		0.29	0.30	0.31	0.38	0.47	0.45	0.63	0.57	0.64	0.83	0.80	0.82	1.04	0.98	0.88	1.21	1.21	1.42	1.89	
Strip Shopping Mall	Strip shopping mall	0.35	0.35	0.38	0.45	0.57	0.53	0.76	0.68	0.76	0.99	0.96	0.98	1.25	1.17	1.05	1.44	1.45	1.70	2.26	
Warehouse		0.20	0.20	0.21	0.26	0.32	0.31	0.43	0.39	0.44	0.57	0.55	0.56	0.71	0.67	0.60	0.83	0.83	0.97	1.29	
Warehouse	Non-refrigerated warehouse	0.19	0.19	0.20	0.25	0.31	0.29	0.41	0.37	0.41	0.54	0.52	0.53	0.68	0.64	0.57	0.78	0.79	0.92	1.23	
Warehouse		0.03	0.04	0.04	0.05	0.06	0.05	0.08	0.07	0.08	0.10	0.10	0.10	0.10	0.12	0.12	0.11	0.14	0.15	0.17	0.23

Table A-1b – FY 2020-FY 2024 Maximum Allowable Fossil Fuel-Generated Energy Consumption by Building Category, Building Type and Climate Zone, Commercial Buildings and Multi-Family High-Rise Residential Buildings (source kBtu/yr-sqft)

Building Category	Climate Zone:		Fossil Fuel-Generated Energy Use Intensity (site kBtu/yr-sqft)																	
	Building Type	0A	0B	1A	1B	2A	2B	3A	3B	3C	4A	4B	4C	5A	5B	5C	6A	6B	7	8
Education	College/university	2	2	2	3	3	3	4	4	4	6	5	5	7	7	6	8	8	9	13
Education	Elementary/middle school	3	3	3	4	5	5	7	6	7	9	8	9	11	10	9	13	13	15	20
Education	High school	0	0	1	2	3	3	6	5	6	9	8	9	12	11	9	15	15	18	26
Education	Other classroom education	1	1	1	1	2	2	2	2	2	3	3	3	4	4	3	5	5	6	7
Education	Preschool/daycare	3	3	3	4	4	4	6	5	6	8	8	8	10	9	8	11	11	13	18
Enclosed Mall	Enclosed mall	3	3	3	4	5	5	7	6	7	9	9	9	11	11	10	13	13	15	21
Food Sales	Convenience store	3	3	3	4	5	5	7	6	7	9	8	9	11	10	9	13	13	15	20
Food Sales	Convenience store with gas station	2	2	2	3	4	3	5	4	5	6	6	6	8	7	7	9	9	10	14
Food Sales	Grocery store/food market	3	3	3	4	5	5	7	6	7	9	9	9	12	11	10	13	13	16	21
Food Sales	Other food sales	10	10	11	13	16	15	22	19	22	28	27	28	36	33	30	41	41	48	64
Food Service	Fast food	19	19	20	24	31	29	41	37	41	54	51	53	67	63	57	78	78	91	122
Food Service	Other food service	2	2	3	3	4	4	5	5	5	7	7	7	9	8	7	10	10	12	16
Food Service	Restaurant/cafe	13	14	14	17	22	20	29	26	29	38	37	38	48	45	40	55	56	65	87
Inpatient Health Care	Hospital/inpatient health	10	10	10	12	14	13	18	16	18	23	22	23	28	27	24	32	32	37	49
Laboratory	Laboratory	7	7	8	9	12	11	16	14	16	20	20	20	26	24	22	30	30	35	46
Lodging	Dormitory/fraternity/sorority	5	5	5	6	7	7	10	9	10	13	13	13	16	16	14	19	19	22	30
Lodging	Hotel	4	4	5	5	7	6	9	8	9	12	11	12	15	14	13	17	17	20	27
Lodging	Motel or inn	5	6	6	7	9	8	12	11	12	16	15	15	19	18	16	23	23	27	35
Lodging	Other lodging	2	2	2	3	3	3	5	4	5	6	6	6	8	7	6	9	9	10	14
Nursing	Nursing home/assisted living	7	8	8	10	12	11	16	14	16	21	20	21	27	25	22	31	31	36	48
Office	Administrative/	3	3	3	4	4	4	6	5	6	8	8	8	10	9	8	11	11	13	18

Building Category	Climate Zone:	Fossil Fuel-Generated Energy Use Intensity (site kBtu/yr-sqft)																			
		0A	0B	1A	1B	2A	2B	3A	3B	3C	4A	4B	4C	5A	5B	5C	6A	6B	7	8	
	Building Type																				
	professional office																				
Office	Bank/other financial	2	2	2	2	3	3	4	3	4	5	5	5	6	6	5	7	7	8	11	
Office	Government office	3	3	3	4	5	4	6	5	6	8	8	8	10	9	8	12	12	14	18	
Office	Medical office (non-diagnostic)	3	3	3	4	5	5	7	6	7	9	8	9	11	10	9	13	13	15	20	
Office	Mixed-use office	2	2	3	3	4	4	5	5	5	7	7	7	9	8	7	10	10	12	16	
Office	Other office	4	4	4	5	6	6	8	7	8	10	10	10	13	12	11	15	15	18	23	
Outpatient Health Care	Clinic/other outpatient health	2	2	2	3	4	3	5	4	5	6	6	6	8	8	7	9	9	11	15	
Outpatient Health Care	Medical office (diagnostic)	2	2	3	3	4	4	5	5	5	7	7	7	9	8	7	10	10	12	16	
Public Assembly	Entertainment/culture	2	2	2	2	3	3	4	3	4	5	5	5	6	6	5	7	7	9	11	
Public Assembly	Library	2	2	2	3	3	3	5	4	5	6	6	6	8	7	6	9	9	10	14	
Public Assembly	Other public assembly	2	2	2	3	3	3	5	4	5	6	6	6	8	7	6	9	9	10	14	
Public Assembly	Recreation	2	2	2	3	4	3	5	4	5	6	6	6	8	7	7	9	9	11	14	
Public Assembly	Social/meeting	3	3	3	4	4	4	6	5	6	8	7	8	10	9	8	11	11	13	18	
Public Order & Safety	Fire station/police station	5	5	5	6	8	7	11	10	11	14	13	14	17	16	15	20	20	24	32	
Public Order & Safety	Other public order and safety	2	2	3	3	4	4	5	5	5	7	7	7	9	8	7	10	10	12	16	
Religious Worship	Religious worship	2	2	2	3	4	3	5	4	5	6	6	6	8	7	7	9	9	11	14	
Retail (except malls)	Other retail	4	4	4	5	6	6	8	7	8	10	10	10	13	12	11	15	15	17	23	
Retail (except malls)	Retail store	0	0	0	1	2	2	4	3	4	6	5	5	8	7	6	9	9	12	16	
Retail (except malls)	Vehicle dealership/showroom	5	5	5	7	8	8	11	10	11	14	14	14	18	17	15	21	21	25	33	
Service	Other service	5	5	6	7	9	8	12	10	12	15	14	15	19	18	16	22	22	26	34	

[illegible]

Table A-23 – FY 2025-FY 2029 Maximum Allowable Fossil Fuel-Generated Energy Consumption by Building Category, Building Type and Climate Zone, Commercial Buildings and Multi-Family High-Rise Residential Buildings (CO₂e/yr-sqft)

Building Category	Climate Zone:		Fossil Fuel-Generated Energy Use Intensity (CO ₂ e/yr-sqft)																	
	0A	0B	1A	1B	2A	2B	3A	3B	3C	4A	4B	4C	5A	5B	5C	6A	6B	7	8	
Education	0.11	0.11	0.12	0.14	0.17	0.16	0.23	0.21	0.23	0.30	0.29	0.30	0.38	0.36	0.32	0.44	0.44	0.52	0.69	
Education	0.17	0.17	0.18	0.22	0.27	0.26	0.36	0.33	0.36	0.48	0.46	0.47	0.60	0.56	0.50	0.69	0.70	0.81	1.08	
Education	0.01	0.01	0.03	0.09	0.17	0.14	0.31	0.25	0.31	0.48	0.45	0.47	0.66	0.61	0.52	0.81	0.81	0.99	1.41	
Education	0.06	0.06	0.07	0.08	0.10	0.10	0.14	0.12	0.14	0.18	0.17	0.18	0.22	0.21	0.19	0.26	0.26	0.31	0.41	
Education	0.15	0.15	0.16	0.20	0.25	0.23	0.33	0.30	0.33	0.43	0.42	0.43	0.54	0.51	0.46	0.63	0.63	0.74	0.98	
Enclosed Mall	0.17	0.18	0.19	0.23	0.29	0.27	0.38	0.34	0.38	0.50	0.48	0.49	0.63	0.59	0.53	0.73	0.73	0.85	1.14	
Food Sales	0.17	0.17	0.18	0.22	0.27	0.25	0.36	0.32	0.36	0.48	0.46	0.47	0.60	0.56	0.50	0.69	0.69	0.81	1.08	
Food Sales	0.12	0.12	0.13	0.15	0.19	0.18	0.26	0.23	0.26	0.34	0.33	0.33	0.42	0.40	0.36	0.49	0.49	0.58	0.77	
Food Sales	0.18	0.18	0.19	0.23	0.29	0.27	0.39	0.35	0.39	0.51	0.49	0.50	0.63	0.60	0.54	0.74	0.74	0.86	1.15	
Food Sales	0.55	0.55	0.59	0.71	0.89	0.84	1.19	1.07	1.19	1.56	1.50	1.54	1.96	1.85	1.65	2.27	2.28	2.66	3.55	
Food Service	1.03	1.05	1.11	1.35	1.68	1.58	2.25	2.01	2.26	2.95	2.83	2.91	3.69	3.48	3.12	4.28	4.30	5.03	6.71	
Food Service	0.13	0.14	0.14	0.18	0.22	0.21	0.29	0.26	0.29	0.38	0.37	0.38	0.48	0.45	0.41	0.56	0.56	0.65	0.87	
Food Service	0.74	0.75	0.79	0.96	1.20	1.13	1.60	1.43	1.61	2.10	2.02	2.07	2.63	2.48	2.22	3.05	3.06	3.58	4.78	
Inpatient Health Care	0.53	0.54	0.56	0.65	0.78	0.74	1.00	0.91	1.00	1.26	1.22	1.25	1.55	1.47	1.33	1.77	1.78	2.06	2.70	
Laboratory	0.39	0.40	0.42	0.51	0.64	0.60	0.86	0.77	0.86	1.12	1.08	1.11	1.41	1.33	1.19	1.63	1.64	1.92	2.56	
Lodging	0.25	0.26	0.27	0.33	0.41	0.39	0.55	0.49	0.55	0.72	0.70	0.71	0.91	0.85	0.76	1.05	1.06	1.23	1.65	
Lodging	0.23	0.23	0.25	0.30	0.38	0.35	0.50	0.45	0.50	0.66	0.63	0.65	0.82	0.78	0.70	0.96	0.96	1.12	1.50	
Lodging	0.30	0.30	0.32	0.39	0.49	0.46	0.65	0.58	0.66	0.86	0.82	0.84	1.07	1.01	0.91	1.24	1.25	1.46	1.95	
Lodging	0.12	0.12	0.13	0.15	0.19	0.18	0.25	0.23	0.25	0.33	0.32	0.33	0.42	0.39	0.35	0.48	0.48	0.57	0.75	
Nursing	0.41	0.42	0.44	0.53	0.67	0.63	0.89	0.80	0.89	1.17	1.12	1.15	1.46	1.38	1.24	1.70	1.71	1.99	2.66	

Building Category	Climate Zone:	0A	0B	1A	1B	2A	2B	3A	3B	3C	4A	4B	4C	5A	5B	5C	6A	6B	7	8
	Building Type	Fossil Fuel-Generated Energy Use Intensity (CO ₂ /yr-sqft)																		
Office	Administrative/ professional office	0.15	0.15	0.16	0.20	0.25	0.23	0.33	0.29	0.33	0.43	0.41	0.43	0.54	0.51	0.46	0.63	0.63	0.74	0.98
Office	Bank/other financial	0.09	0.09	0.10	0.12	0.15	0.14	0.20	0.18	0.20	0.26	0.25	0.26	0.33	0.31	0.28	0.38	0.38	0.45	0.60
Office	Government office	0.15	0.16	0.17	0.20	0.25	0.24	0.33	0.30	0.34	0.44	0.42	0.43	0.55	0.52	0.46	0.64	0.64	0.75	1.00
Office	Medical office (non- diagnostic)	0.17	0.17	0.18	0.22	0.28	0.26	0.37	0.33	0.37	0.49	0.47	0.48	0.61	0.58	0.51	0.71	0.71	0.83	1.11
Office	Mixed-use office	0.13	0.13	0.14	0.17	0.22	0.20	0.29	0.26	0.29	0.38	0.36	0.37	0.47	0.45	0.40	0.55	0.55	0.64	0.86
Office	Other office	0.20	0.20	0.21	0.26	0.32	0.30	0.43	0.39	0.43	0.57	0.54	0.56	0.71	0.67	0.60	0.82	0.83	0.97	1.29
Outpatient Health Care	Clinic/ other outpatient health	0.13	0.13	0.13	0.16	0.20	0.19	0.27	0.24	0.27	0.36	0.34	0.35	0.45	0.42	0.38	0.52	0.52	0.61	0.81
Outpatient Health Care	Medical office (diagnostic)	0.13	0.14	0.14	0.18	0.22	0.21	0.29	0.26	0.29	0.38	0.37	0.38	0.48	0.45	0.41	0.56	0.56	0.65	0.87
Public Assembly	Entertainment/ culture	0.10	0.10	0.11	0.13	0.16	0.15	0.21	0.19	0.21	0.28	0.27	0.27	0.35	0.33	0.29	0.40	0.41	0.48	0.63
Public Assembly	Library	0.12	0.12	0.13	0.15	0.19	0.18	0.25	0.23	0.25	0.33	0.32	0.33	0.42	0.39	0.35	0.48	0.49	0.57	0.76
Public Assembly	Other public assembly	0.12	0.12	0.13	0.15	0.19	0.18	0.25	0.23	0.26	0.33	0.32	0.33	0.42	0.39	0.35	0.49	0.49	0.57	0.76
Public Assembly	Recreation	0.12	0.12	0.13	0.16	0.20	0.18	0.26	0.23	0.26	0.34	0.33	0.34	0.43	0.41	0.36	0.50	0.50	0.59	0.78
Public Assembly	Social/ meeting	0.15	0.15	0.16	0.19	0.24	0.23	0.32	0.29	0.33	0.42	0.41	0.42	0.53	0.50	0.45	0.62	0.62	0.72	0.97
Public Order & Safety	Fire station /police station	0.27	0.27	0.29	0.35	0.44	0.41	0.59	0.53	0.59	0.77	0.74	0.76	0.96	0.91	0.81	1.12	1.12	1.31	1.75
Public Order & Safety	Other public order and safety	0.13	0.13	0.14	0.17	0.22	0.20	0.29	0.26	0.29	0.38	0.36	0.37	0.47	0.45	0.40	0.55	0.55	0.64	0.86
Religious Worship	Religious worship	0.12	0.12	0.13	0.16	0.19	0.18	0.26	0.23	0.26	0.34	0.33	0.34	0.43	0.40	0.36	0.50	0.50	0.58	0.78
Retail (except malls)	Other retail	0.20	0.20	0.21	0.26	0.32	0.30	0.43	0.39	0.43	0.57	0.54	0.56	0.71	0.67	0.60	0.82	0.82	0.96	1.29
Retail (except malls)	Retail store	0.01	0.01	0.02	0.06	0.11	0.09	0.20	0.16	0.20	0.31	0.29	0.30	0.43	0.39	0.34	0.52	0.52	0.64	0.90
Retail (except malls)	Vehicle dealership/ showroom	0.28	0.28	0.30	0.37	0.46	0.43	0.61	0.55	0.61	0.80	0.77	0.79	1.00	0.94	0.84	1.16	1.17	1.36	1.82

Building Category	Climate Zone:	Building Type	0A	0B	1A	1B	2A	2B	3A	3B	3C	4A	4B	4C	5A	5B	5C	6A	6B	7	8
Service	Other service		0.29	0.29	0.31	0.38	0.47	0.45	0.63	0.57	0.64	0.83	0.80	0.82	1.04	0.98	0.88	1.21	1.21	1.42	1.89
Service	Post office/ postal center		0.12	0.12	0.13	0.16	0.20	0.19	0.27	0.24	0.27	0.35	0.33	0.34	0.44	0.41	0.37	0.50	0.51	0.59	0.79
Service	Repair shop		0.09	0.09	0.10	0.12	0.15	0.14	0.20	0.18	0.20	0.26	0.25	0.26	0.33	0.31	0.27	0.38	0.38	0.44	0.59
Service	Vehicle service/ repair shop		0.18	0.19	0.20	0.24	0.30	0.28	0.40	0.36	0.40	0.52	0.50	0.51	0.65	0.62	0.55	0.76	0.76	0.89	1.19
Service	Vehicle storage/ maintenance		0.15	0.15	0.16	0.19	0.24	0.22	0.32	0.28	0.32	0.42	0.40	0.41	0.52	0.49	0.44	0.60	0.61	0.71	0.95
Strip Shopping Mall	Strip shopping mall		0.17	0.18	0.19	0.23	0.28	0.27	0.38	0.34	0.38	0.50	0.48	0.49	0.62	0.59	0.53	0.72	0.73	0.85	1.13
Warehouse	Distribution/ shipping center		0.10	0.10	0.11	0.13	0.16	0.15	0.22	0.19	0.22	0.28	0.27	0.28	0.36	0.34	0.30	0.41	0.41	0.49	0.65
Warehouse	Non- refrigerated warehouse		0.09	0.10	0.10	0.12	0.15	0.14	0.21	0.18	0.21	0.27	0.26	0.27	0.34	0.32	0.29	0.39	0.39	0.46	0.61
Warehouse	Refrigerated warehouse		0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.03	0.04	0.05	0.05	0.05	0.06	0.06	0.05	0.07	0.07	0.08	0.11

Table A-2b – FY 2025-FY 2029 Maximum Allowable Fossil Fuel-Generated Energy Consumption by Building Category, Building Type and Climate Zone, Commercial Buildings and Multi-Family High-Rise Residential Buildings (site kBtu/yr-sqft)

Building Category	Climate Zone:		Fossil Fuel-Generated Energy Use Intensity (site kBtu/yr-sqft)																	
	0A	0B	1A	1B	2A	2B	3A	3B	3C	4A	4B	4C	5A	5B	5C	6A	6B	7	8	
Building Type																				
Education	1	1	1	1	2	1	2	2	2	3	3	3	3	3	3	4	4	5	6	
Education	2	2	2	2	2	2	3	3	3	4	4	4	5	5	5	6	6	7	10	
Education	0	0	0	1	2	1	3	2	3	4	4	4	6	6	5	7	7	9	13	
Education	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	3	4	
Education	1	1	1	2	2	2	3	3	3	4	4	4	5	5	4	6	6	7	9	
Enclosed Mall	2	2	2	2	3	2	3	3	3	5	4	4	6	5	5	7	7	8	10	
Food Sales	2	2	2	2	2	2	3	3	3	4	4	4	5	5	5	6	6	7	10	
Food Sales	1	1	1	1	2	2	2	2	2	3	3	3	4	4	3	4	4	5	7	
Food Sales	2	2	2	2	3	2	4	3	4	5	4	5	6	5	5	7	7	8	10	
Food Sales	5	5	5	6	8	8	11	10	11	14	14	14	18	17	15	21	21	24	32	
Food Service	9	9	10	12	15	14	20	18	20	27	26	26	34	32	28	39	39	46	61	
Food Service	1	1	1	2	2	2	3	2	3	3	3	3	4	4	4	5	5	6	8	
Food Service	7	7	7	9	11	10	15	13	15	19	18	19	24	23	20	28	28	33	43	
Inpatient Health Care	5	5	5	6	7	7	9	8	9	11	11	11	14	13	12	16	16	19	24	
Laboratory	4	4	4	5	6	5	8	7	8	10	10	10	13	12	11	15	15	17	23	
Lodging	2	2	2	3	4	4	5	4	5	7	6	6	8	8	7	10	10	11	15	
Lodging	2	2	2	3	3	3	5	4	5	6	6	6	7	7	6	9	9	10	14	
Lodging	3	3	3	4	4	4	6	5	6	8	7	8	10	9	8	11	11	13	18	
Lodging	1	1	1	1	2	2	2	2	2	3	3	3	4	4	3	4	4	5	7	
Nursing	4	4	4	5	6	6	8	7	8	11	10	10	13	13	11	15	15	18	24	
Office	1	1	1	2	2	2	3	3	3	4	4	4	5	5	4	6	6	7	9	

Building Category	Climate Zone:		Fossil Fuel-Generated Energy Use Intensity (site kBtu/yr-sqft)															7	8
	0A	0B	1A	1B	2A	2B	3A	3B	3C	4A	4B	4C	5A	5B	5C	6A	6B		
Office	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3	4	5
Office	1	1	2	2	2	2	3	3	3	4	4	4	5	5	4	6	6	7	9
Office	2	2	2	2	3	2	3	3	3	4	4	4	6	5	5	6	6	8	10
Office	1	1	1	2	2	2	3	2	3	3	3	3	4	4	4	5	5	6	8
Office	2	2	2	2	3	3	4	4	4	5	5	5	6	6	5	7	7	9	12
Outpatient Health Care	1	1	1	1	2	2	2	2	2	3	3	3	4	4	3	5	5	6	7
Outpatient Health Care	1	1	1	2	2	2	3	2	3	3	3	3	4	4	4	5	5	6	8
Public Assembly	1	1	1	1	1	1	2	2	2	3	2	2	3	3	3	4	4	4	6
Public Assembly	1	1	1	1	2	2	2	2	2	3	3	3	4	4	3	4	4	5	7
Public Assembly	1	1	1	1	2	2	2	2	2	3	3	3	4	4	3	4	4	5	7
Public Assembly	1	1	1	1	2	2	2	2	2	3	3	3	4	4	3	5	5	5	7
Public Assembly	1	1	1	2	2	2	3	3	3	4	4	4	5	5	4	6	6	7	9
Public Order & Safety	2	2	3	3	4	4	5	5	5	7	7	7	9	8	7	10	10	12	16
Public Order & Safety	1	1	1	2	2	2	3	2	3	3	3	3	4	4	4	5	5	6	8
Religious Worship	1	1	1	1	2	2	2	2	2	3	3	3	4	4	3	4	5	5	7
Retail (except malls)	2	2	2	2	3	3	4	3	4	5	5	5	6	6	5	7	7	9	12
Retail (except malls)	0	0	0	1	1	1	2	1	2	3	3	3	4	4	3	5	5	6	8
Retail (except malls)	3	3	3	3	4	4	6	5	6	7	7	7	9	9	8	11	11	12	16
Service	3	3	3	3	4	4	6	5	6	8	7	7	9	9	8	11	11	13	17
Service	1	1	1	1	2	2	2	2	2	3	3	3	4	4	3	5	5	5	7

Building Category	Climate Zone:	0A	0B	1A	1B	2A	2B	3A	3B	3C	4A	4B	4C	5A	5B	5C	6A	6B	7	8
		Fossil Fuel-Generated Energy Use Intensity (site kBtu/yr-sqft)																		
Building Type																				
Service	Repair shop	1	1	1	1	1	1	2	2	2	2	2	2	3	3	2	3	3	4	5
Service	Vehicle service/repair shop	2	2	2	2	3	3	4	3	4	5	5	5	6	6	5	7	7	8	11
Service	Vehicle storage/maintenance	1	1	1	2	2	2	3	3	3	4	4	4	5	4	4	5	6	6	9
Strip Shopping Mall	Strip shopping mall	2	2	2	2	3	2	3	3	3	5	4	4	6	5	5	7	7	8	10
Warehouse	Distribution/shipping center	1	1	1	1	1	1	2	2	2	3	2	3	3	3	3	4	4	4	6
Warehouse	Non-refrigerated warehouse	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	4	4	4	6
Warehouse	Refrigerated warehouse	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	1

PART 435—ENERGY EFFICIENCY STANDARDS FOR THE DESIGN AND CONSTRUCTION OF NEW FEDERAL LOW-RISE RESIDENTIAL BUILDINGS

■ 5. The authority citation for part 435 continues to read as follows:

Authority: 42 U.S.C. 6831–6832; 6834–6836; 42 U.S.C. 8253–54; 42 U.S.C. 7101 *et seq.*

■ 6. Amend § 435.1, by adding paragraph (b) to read as follows:

§ 435.1 Purpose and scope.

(b) This part also establishes a maximum allowable fossil fuel-generated energy consumption standard for new Federal buildings that are low-rise residential buildings and major renovations to Federal buildings that are low-rise residential buildings, for which design for construction began on or after May 1, 2025

■ 7. Amend § 435.2 by:

- a. Adding in alphabetical order, the definitions of “Construction cost,” “Design for renovation,” “EISA-subject building or project,” “Federal building,” “Fiscal year (FY),” “Fossil fuel-generated energy consumption,” “Major renovation,” “Major renovation cost,” “Major renovation of all Scope fossil fuel-using systems in a building,” and “Major renovation of a Scope 1 fossil fuel-using building system or Scope 1 fossil fuel-using component”;
- b. Revising the definition of “Proposed building”; and
- c. Adding in alphabetical order, the definitions of “Shift adjustment multiplier” and “Technical impracticability”.

The additions and revision read as follows:

§ 435.2 Definitions.

Construction cost means all costs associated with the construction of a new Federal building. It includes, but not limited to, the cost of preliminary planning, engineering, architectural, permitting, fiscal, and economic investigations and studies, surveys, designs, plans, working drawings, specifications, procedures, and other similar actions necessary for the construction of a new Federal building. It does not include the cost of acquiring the land.

Design for renovation means the stage when the energy efficiency and sustainability details (such as insulation levels, HVAC systems, water-using systems, etc.) are either explicitly

determined or implicitly included in a renovation project cost specification.

EISA-subject building or project means, for purposes of this rule, any new building or renovation project that is subject to the cost thresholds and reporting requirements in Section 433 of EISA ((42 U.S.C. 6834(a)(3)(D)(i))). The cost threshold referenced in Section 433 of EISA is \$2.5 million in 2007 dollars. GSA provides a table of annual updates to this cost threshold at <https://www.gsa.gov/real-estate/design-and-construction/annual-prospectus-thresholds>. GSA also provides a second cost threshold for renovations of leased buildings that is 1/2 of the cost threshold for renovation of Federally owned buildings.

Federal building means any building to be constructed by, or for the use of, any Federal agency. Such term shall include buildings built for the purpose of being leased by a Federal agency and privatized military housing.

Fiscal Year (FY) means the 12-month period beginning on October 1 of the year prior to the specified calendar year and ending on September 30 of the specified calendar year.

Fossil fuel-generated energy consumption means the on-site stationary consumption of fossil fuels that contribute to Scope 1 emissions for generation of electricity, heat, cooling, or steam as defined by “Federal Greenhouse Gas Accounting and Reporting Guidance” (Council on Environmental Quality, January 17, 2016). This includes, but is not limited to, emissions that result from combustion of fuels in stationary sources (e.g., boilers, furnaces, turbines, and emergency generators). This term does not include mobile sources, fugitive emissions, or process emissions as defined by “Federal Greenhouse Gas Accounting and Reporting Guidance” (Council on Environmental Quality, January 17, 2016).

Major renovation means either major renovation of all Scope 1 fossil fuel-using systems in a building or major renovation of one or more Scope 1 fossil fuel-using building systems or components, as defined in this section.

Major renovation cost means all costs associated with the repairing, remodeling, improving, extending, or other changes in a Federal building. It includes, but is not limited to, the cost of preliminary planning, engineering, architectural, permitting, fiscal, and economic investigations and studies, surveys, designs, plans, working

drawings, specifications, procedures, and other similar actions necessary for the alteration of a Federal building.

Major renovation of all Scope 1 fossil fuel-using systems in a building means construction on an existing building that is so extensive that it replaces all Scope 1 fossil fuel-using systems in the building. This term includes, but is not limited to, comprehensive replacement or restoration of most or all major systems, interior work (such as ceilings, partitions, doors, floor finishes, etc.), or building elements and features.

Major renovation of a Scope 1 fossil fuel-using building system or Scope 1 fossil fuel-using component means changes to a building that provide significant opportunities for energy efficiency or reduction in fossil fuel-related energy consumption. This includes, but is not limited to, replacement of the HVAC system, hot water system, or cooking system, or other fossil fuel-using systems or components of the building that have a major impact on fossil fuel usage.

Proposed building means the design for construction of a new Federal low-rise residential building, or major renovation to a Federal low-rise residential building, proposed for construction.

Shift adjustment multiplier means that agencies can apply a multiplication factor to their Maximum Allowable Fossil Fuel-Generated Energy Consumption by Building Category target based upon the weekly hours of active operation of the building. The weekly hours of operation to use as a basis for the shift adjustment multiplier lookup should be based upon the time in which in the building is actively occupied and operating per its intended use type and should include unoccupied hours or other times of limited use (such as night-time setback hours).

Technical impracticability means achieving the Scope 1 fossil fuel-based energy consumption targets would:

- (1) Not be feasible from an engineering design or execution standpoint due to existing physical or site constraints that prohibit modification or addition of elements or spaces;
- (2) Significantly obstruct building operations and the functional needs of a building, specifically for industrial process loads, critical national security functions, mission critical information systems as defined in NIST SP 800–60 Vol. 2 Rev. 1, and research operations, or
- (3) Significantly degrade energy resiliency and energy security of

TABLE 1—SHIFT ADJUSTMENT MULTIPLIER BY HOURS OF OPERATION AND BUILDING TYPE—Continued

Building activity/type	Weekly hours of operation		
	50 or less	51 to 167	168
Other public assembly	0.8	1.5	1.5
College/university	0.8	1.3	1.3
Elementary/middle school	0.8	1.3	1.3
High school	0.8	1.3	1.3
Preschool/daycare	0.8	1.3	1.3
Other classroom education	0.8	1.3	1.3
Fast food	0.4	1.1	2.1
Restaurant/cafe/teria	0.4	1.1	2.1
Other food service	0.4	1.1	2.1
Hospital/inpatient health	1	1	1
Nursing home/assisted living	1	1	1
Dormitory/fraternity/sorority	1	1	1
Hotel	1	1	1
Motel or inn	1	1	1
Other lodging	1	1	1
Vehicle dealership/showroom	0.8	1.2	1.8
Retail store	0.8	1.2	1.8
Other retail	0.8	1.2	1.8
Post office/postal center	0.7	1.5	1.5
Repair shop	0.7	1.5	1.5
Vehicle service/repair shop	0.7	1.5	1.5
Vehicle storage/maintenance	0.7	1.5	1.5
Other service	0.7	1.5	1.5
Strip shopping mall	1	1	1
Enclosed mall	1	1	1
Bar/Pub/Lounge	1	1	1.4
Courthouse/Probation Office	1	1	1.4

(ii) Design for construction began during or after FY 2030. For new construction and major renovations of all Scope 1 fossil fuel-using systems in an EISA-subject building, the Scope 1 fossil fuel-generated energy consumption of the proposed building, based on building design and calculated according to § 435.201(a), must be zero.

(2) Major Renovations of a Scope 1 Fossil Fuel-Using Building System or Component within an EISA-Subject Building shall follow the renovation requirements in section 4.2.1.3 of the applicable building baseline energy efficiency standards listed in § 435.4 substituting the term “design for construction” with “design for renovation” for the relevant date, and shall replace all equipment that is included in the renovation with all electric or non-fossil fuel-using ENERGY STAR or FEMP designated products as defined in § 436.42. For component level renovations, Agencies shall replace all equipment that is part of the renovation with all electric or non-fossil fuel-using ENERGY STAR or FEMP designated products as defined in § 436.42.

(d) *EISA-Subject buildings that are of the type not included in Appendix A of*

this subpart—(1) Process load buildings.

For building types that are not included in any of the building types listed in Tables A–1a to A–2a or A–1b to A–2b of appendix A of this subpart, or for building types in these tables that contain significant process loads, Federal agencies must select the applicable building type, climate zone, and fiscal year in which design for construction began from Tables A–1a to A–2a or A–1b to A–2b of appendix A of this subpart that most closely corresponds to the proposed building without the process load. The estimated Scope 1 fossil fuel-generated energy consumption of the process load must be added to the maximum allowable Scope 1 fossil fuel-generated energy consumption of the applicable building type for the appropriate fiscal year and climate zone to calculate the maximum allowable Scope 1 fossil fuel-generated energy consumption for the building. The same estimated Scope 1 fossil fuel-generated energy consumption of the process load that is added to the maximum allowable Scope 1 fossil fuel-generated energy consumption of the applicable building must also be used in determining the Scope 1 fossil fuel-

generated energy consumption of the proposed building.

(2) *Mixed-use buildings.* For buildings that combine two or more building types with process loads or, alternatively, that combine one or more building types with process loads with one or more building types in Tables A–1a to A–2a or A–1b to A–2b of appendix A of this subpart, the maximum allowable Scope 1 fossil fuel-generated energy consumption of the proposed building is equal to the averaged process load building values determined under paragraph (d)(1) of this section and the applicable building type values in Tables A–1a to A–2a or A–1b to A–2b of appendix A of this subpart, weighted by floor area. Equation 1 shall be used for mixed use buildings.

Equation 1: Scope 1 Fossil fuel generated energy consumption for a mixed-use building = the sum across all building uses of (the fraction of total floor building floor area for building use *i* times the allowable fossil fuel-generated energy consumption for building use *i*)

Equation 1 may be rewritten as:

submit petitions in accordance with this section.

**Appendix A to Subpart B of Part 435
Maximum Allowable Fossil Fuel
Generated Energy Consumption**

(a) For purposes of the tables in this appendix, the climate zones are listed in the performance standards required by § 435.4(a)(4)(i).

(b) For purpose of appendix A, the following definitions apply:

(1) *Mobile Home* means a dwelling unit built to the Federal Manufactured Home Construction and Safety Standards in 24 CFR part 3280, that is built on a permanent chassis and moved to a site. It may be placed on a permanent or temporary foundation and may contain one or more rooms.

(2) *Multi-Family in 2–4 Unit Buildings* means a category of structures that is divided into living quarters for two, three, or four families or households in which one household lives above or beside another. This category also includes houses originally intended for occupancy by one family (or for some other use) that have since been converted to separate dwellings for two to four families.

(3) *Multi-Family in 5 or More Unit Buildings* means a category of structures that contain living quarters for five or more households or families and in which one household lives above or beside another.

(4) *Single-Family Attached* means a building with two or more connected dwelling units, generally with a shared wall, each providing living space for one household or family. Attached houses are considered single-family houses as long as

they are not divided into more than one dwelling unit and they have independent outside entrances. A single-family house is contained within walls extending from the basement (or the ground floor, if there is no basement) to the roof. Townhouses, row houses, and duplexes are considered single-family attached dwelling units, as long as there is no dwelling unit above or below another.

(5) *Single-Family Detached* means a separate, unconnected dwelling unit, not sharing a wall with any other building or dwelling unit, which provides living space for one household or family. A single-family house is contained within walls extending from the basement (or the ground floor, if there is no basement) to the roof. This includes modular homes but does not include mobile homes.

Building Category	Climate Zone:	Fossil Fuel-Generated Energy Use Intensity (CO ₂ e/yr-sqft)																		
		0A	0B	1A	1B	2A	2B	3A	3B	3C	4A	4B	4C	5A	5B	5C	6A	6B	7	8
	Building Activity/ Type																			
Residential	Mobile	0.66	0.67	0.68	0.73	0.80	0.78	0.92	0.76	0.87	0.92	1.07	1.05	1.06	1.23	1.19	1.11	1.36	1.36	1.51
Residential	Single-family detached	0.40	0.41	0.41	0.45	0.50	0.48	0.58	0.47	0.55	0.58	0.69	0.67	0.68	0.79	0.76	0.71	0.88	0.88	0.99
Residential	Single-family attached	0.76	0.76	0.77	0.78	0.80	0.79	0.83	0.79	0.82	0.83	0.87	0.87	0.87	0.92	0.90	0.88	0.95	0.95	0.99
Residential	Multi-family (in 2-4 unit building)	0.56	0.57	0.61	0.74	0.93	0.87	1.25	0.83	1.11	1.25	1.64	1.58	1.62	2.06	1.95	1.74	2.40	2.41	2.82
Residential	Multi-family (in 5+ unit building)	0.24	0.25	0.29	0.42	0.61	0.55	0.93	0.51	0.80	0.93	1.32	1.26	1.30	1.74	1.63	1.42	2.08	2.09	2.50

Building Category	Climate Zone: Building Activity/ Type	0A	0B	1A	1B	2A	2B	3A	3B	3C	4A	4B	4C	5A	5B	5C	6A	6B	7	8
		Fossil Fuel-Generated Energy Use Intensity (site kBtu/yr-sqft)																		
Residential	Mobile	6	6	6	7	7	7	8	7	8	8	10	10	10	11	11	10	12	12	14
Residential	Single-family detached	4	4	4	4	5	4	5	4	5	5	6	6	6	7	7	6	8	8	9
Residential	Single-family attached	7	7	7	7	7	7	8	7	7	8	8	8	8	8	8	8	9	9	9
Residential	Multi-family (in 2-4 unit building)	5	5	6	7	8	8	11	8	10	11	15	14	15	19	18	16	22	22	26
Residential	Multi-family (in 5+ unit building)	2	2	3	4	6	5	8	5	7	8	12	11	12	16	15	13	19	19	23

Table A-2a – FY 2025-FY 2029 Maximum Allowable Fossil Fuel-Generated Energy Consumption by Building Category, Building Type and Climate Zone, Residential Buildings (CO₂e/yr-sqft)

Building Category	Climate Zone:	Fossil Fuel-Generated Energy Use Intensity (CO ₂ e/yr-sqft)																		
	Building Activity/ Type	0A	0B	1A	1B	2A	2B	3A	3B	3C	4A	4B	4C	5A	5B	5C	6A	6B	7	8
Residential	Mobile	0.33	0.34	0.37	0.40	0.39	0.46	0.38	0.44	0.46	0.54	0.52	0.53	0.62	0.59	0.55	0.68	0.68	0.76	0.3
Residential	Single-family detached	0.20	0.21	0.22	0.25	0.24	0.29	0.24	0.27	0.29	0.34	0.33	0.34	0.40	0.38	0.35	0.44	0.44	0.50	0.2
Residential	Single-family attached	0.38	0.38	0.39	0.40	0.40	0.42	0.39	0.41	0.42	0.44	0.43	0.44	0.46	0.45	0.44	0.47	0.48	0.50	0.3
Residential	Multi-family (in 2-4 unit building)	0.28	0.30	0.37	0.46	0.44	0.62	0.41	0.56	0.63	0.82	0.79	0.81	1.03	0.97	0.87	1.20	1.20	1.41	0.2
Residential	Multi-family (in 5+ unit building)	0.13	0.14	0.21	0.30	0.28	0.46	0.25	0.40	0.47	0.66	0.63	0.65	0.87	0.81	0.71	1.04	1.04	1.25	0.1
																				3

Table A-2b – FY 2025-FY 2029 Maximum Allowable Fossil Fuel-Generated Energy Consumption by Building Category, Building Type and Climate Zone, Residential Buildings (source kBtu/yr-sqft)

Building Type and Climate Zone Residential Buildings (source: ASHRAE 90.1-2010)																			
Building Category	Climate Zone:		Building Activity/ Type																
	0A	0B	1A	1B	2A	2B	3A	3B	3C	4A	4B	4C	5A	5B	5C	6A	6B	7	8
	Fossil Fuel-Generated Energy Use Intensity (site kBtu/yr-sqft)																		
Residential	3	3	3	3	4	4	4	3	4	4	5	5	5	6	5	5	6	6	7
Residential	2	2	2	2	2	2	3	2	2	3	3	3	3	4	3	3	4	4	4
Residential	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5
Residential	3	3	3	3	4	4	6	4	5	6	7	7	7	9	9	8	11	11	13
Residential	1	1	1	2	3	3	4	2	4	4	6	6	6	8	7	6	9	9	11



February 10, 2025

The Honorable Chris Wright
Secretary
U.S. Department of Energy
1000 Independence Avenue SW
Washington, DC 20024

Re: Congratulations and Request for Introductory Meeting

Dear Secretary Wright:

As President and CEO of the American Gas Association ("AGA") and a DOE alumna, I would like to congratulate you on your confirmation and swearing-in as DOE Secretary. AGA and DOE have a long history of working together to maintain consumer access to clean, affordable natural gas and leverage our collective expertise to design programs and initiatives to advance our nation's energy security. On behalf of our members and staff, AGA looks forward to working with you and your team to advance our shared energy priorities.

AGA represents more than 200 local energy companies committed to the safe and reliable delivery of clean natural gas to more than 189 million Americans and 5.8 million businesses in all fifty states. There are more than 79 million residential, commercial, and industrial natural gas customers in the United States, of which 94 percent—more than 74 million customers—receive their gas from AGA members. Today, natural gas meets more than one third of energy needs within the United States. Natural gas has been and will continue to be the cornerstone of America's economy and energy independence.

Our industry is committed to investing, building, and innovating for the families and businesses who depend on us every minute of every day. We were pleased to see the inclusion of a complete review of DOE's appliance standards program in your nine-point plan - AGA's members serve residential and commercial consumers, the majority of whom use natural gas appliances, such as furnaces and water heaters. We also welcome your focus on permitting reform, which is one of our industry's highest priorities. Additionally, as AGA members provide service to federal buildings, including Department of Defense installations, AGA has an interest in the government's rules and policies that would remove or limit natural gas in federal facilities such as DOE's *Clean Energy for New Federal Buildings and Major Renovations of Federal Buildings* rule.

I would like to request a meeting on behalf of our Board Chair, Lloyd Yates, President & CEO, NiSource and me, to introduce AGA and outline our top issues for the department. Mr. Yates will be in town on February 20th and 25th and has availability for meetings. If your staff has any questions, please contact Carolyn Farrell, Manager, President's Office at cfarrell@aga.org or (b) (6).

Sincerely,

A handwritten signature in black ink, appearing to read "K. Harbert", is written over a light gray rectangular background.

Karen Harbert
President and Chief Executive Officer
American Gas Association

Cc: Alex Fitzsimmons, Chief of Staff
Louis Hrkman, Principal Deputy Assistant Secretary