NOT YET SCHEDULED FOR ORAL ARGUMENT

No. 20-1068 (consolidated with Nos. 20-1072 and 20-1100)

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

AMERICAN PUBLIC GAS ASSOCIATION,

Petitioner,

v.

UNITED STATES DEPARTMENT OF ENERGY,

Respondent.

On Petitions for Review of an Order of the
United States Department of Energy

FINAL JOINT REPLY BRIEF OF AMERICAN PUBLIC GAS ASSOCIATION, AIR-CONDITIONING, HEATING, AND REFRIGERATION INSTITUTE, SPIRE INC., AND SPIRE MISSOURI INC.

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GLOSSARY

Act	Energy Policy and Conservation Act
Institute	Air-Conditioning, Heating & Refrigeration Institute
American Society of Engineers or Society	American Society of Heating, Refrigeration and Air-Conditioning Engineers
APA	Administrative Procedure Act
Association	American Public Gas Association
DOE or Department	Department of Energy
Final Rule	Energy Conservation Program: Energy Conservation Standards for Commercial Packaged Boilers, 85 Fed. Reg. 1592 (Jan. 10, 2020)
Petitioners	Institute, American Public Gas Association, and Spire
Process Rule	Energy Conservation Program for Appliance Standards: Procedures for Use in New or Revised Energy Conservation Standards and Test Procedures for Consumer Products and Commercial/Industrial Equipment, 85 Fed. Reg. 8626 (Feb. 14, 2020)
Proposal	Energy Conservation Program: Energy Conservation Standards for Commercial Packaged Boilers, 81 Fed. Reg. 15835 (Mar. 24, 2016)
Spire	Spire Inc. and Spire Missouri Inc.
Standards-compliant	A "standards-compliant" product is a product that is sufficiently efficient to satisfy a standard (or standard under consideration).

STATUTES AND REGULATIONS

Pertinent statutes are contained in the addendum to Petitioners' opening brief.

INTRODUCTION AND SUMMARY OF ARGUMENT

The Final Rule imposed controversial new appliance efficiency standards for commercial packaged boilers that conflict with the internationally-recognized benchmark standards on which most state and local commercial building codes in the United States are based. The rule was fatally flawed because DOE's determination that the standards were economically justified was arbitrary and not supported by clear and convincing evidence as the Energy Policy and Conservation Act requires. DOE misinterpreted the law and failed to apply the statutorily required clear-and-convincing-evidence standard. In addition, DOE's determination that the standards were economically justified was unsupported by substantial evidence, let alone clear and convincing evidence. Now DOE has chosen not to defend the Final Rule, agreeing that it was unlawful and requesting that the Court vacate and remand. Petitioners agree that vacatur of the Final Rule is required.

Respondent-Intervenors attempt to rehabilitate the Final Rule, suggesting that DOE has inappropriately failed to defend it on the merits, and claiming that the Final Rule would provide substantial economic savings for consumers.

Respondent-Intervenors Br. 26-50. However, it was no accident that the Final Rule—for the first and only time—staked out the position that the Act did not require clear and convincing evidence in order to supersede existing standards. There was no such evidence. The Final Rule was controversial for good reason: commenters had convincingly challenged the rule's fundamental premise that standards forcing purchasers to make investments in products that they would decline on their own would provide net economic benefits for consumers that outweigh the net costs. The economic benefits for consumers touted to justify the rule are the product of an unjustifiable assumption that grossly overstates the potential for standards to provide economic benefits for consumers, and—in fact—there is no basis to conclude that the standards would do more to provide economic benefits for consumers than it would to cause them net economic harm.

The Final Rule is unlawful, and the Court should vacate it.

I. DOE admits, and Respondent-Intervenors do not dispute, that the Final Rule relied on an incorrect interpretation of 42 U.S.C. § 6313(a)(6)(C) to not require clear and convincing evidence supporting the Department's economic justification for a more-stringent standard. DOE Br. 16; *see* Respondent-Intervenors Br. 18. Because the Final Rule "is at odds with the requirements of the applicable statute," it "cannot survive judicial review." *United Parcel Serv., Inc. v. Postal Regulatory Comm'n*, 955 F.3d 1038, 1050 (D.C. Cir. 2020); *see also*

DOE Br. 16 (citing similar authorities). In addition, the Final Rule reached that conclusion (1) without acknowledgement of or reasoned explanation for this deviation from DOE precedent, and (2) without requisite notice of the reversal of DOE's longstanding position. *See* Pet. Br. 37-40. No one disputes these independent grounds for holding the Final Rule unlawful.

Respondent-Intervenors contend that the statutory-interpretation error in the Final Rule is "irrelevant." Respondent-Intervenors Br. 18. They are wrong. Respondent-Intervenors highlight isolated snippets of the Final Rule referencing the clear-and-convincing-evidence standard and asserting that DOE's determinations would satisfy it if it applied. But DOE concedes that it did not, in fact, apply the correct standard to the evidence for the Final Rule. DOE admits that its conclusions "f[ell] short of that standard" and agrees with Petitioners that the statements Respondent-Intervenors cling to "do[] not establish that the Department made a sufficiently 'considered conclusion' pursuant to the statutorily mandated clear and convincing evidence standard." DOE Br. 22-24.

II. The Final Rule cannot be upheld in any event, because DOE's determination that the standards were economically justified was arbitrary and unsupported by substantial evidence, let alone clear and convincing evidence.

Respondent-Intervenors argue for a particularly deferential standard of review and suggest that Petitioners merely challenge DOE's reliance on

"imperfect" evidence, unverifiable "predictive judgments," or the use of Monte Carlo simulations. Respondent-Intervenors Br. 30 and 42-43. In fact, Petitioners challenge the rule because DOE lacked the authority to issue the standards it did in the absence of an affirmative determination that those standards were economically justified, and—in critical respects—that determination was unsupported by any credible evidence in the record. DOE addressed several critical issues in its economic analysis with arbitrary assumptions or unsupported assertions. More fundamentally—faced with comment indicating that purchasers of commercial boilers generally consider the economic consequences of their investments and that new standards might do more to saddle purchasers with net-cost efficiency investments than to provide them with economic benefits—DOE assumed the contrary without even attempting to justify that assumption on the merits. As a result, DOE's economic justification for the standards amounts to nothing more than a claim that "benefits exist primarily because [DOE] says they do," and this "unsupported assertion does not amount to substantial evidence." *Algonquin Gas Transmission Co. v. FERC*, 948 F.2d 1305, 1313 (D.C. Cir. 1991); *see* Pet. Br. 59.

Respondent-Intervenors offer speculation that DOE did not rely upon to justify the rule at the time of its adoption, but cannot fill the data gaps in DOE's analysis or alter the fact that the core premise underlying DOE's economic justification—the premise that purchasers of commercial packaged boilers are so

prone to leaving economically beneficial investments in standards-compliant boilers "on the table" that standards could benefit them economically—was an arbitrary assumption that DOE did not even attempt to justify. Respondent-Intervenors go to considerable lengths to confuse both the facts and the issues, but cannot change or justify the fact that DOE's economic analysis was based on the absurd assumption that purchasers of commercial boilers never consider the economic consequences of their decisions. Nor can they alter the fact that—faced with comment challenging the economic justification for the standards on these grounds—DOE acted arbitrarily by failing to "engage the arguments raised before it" with respect to issues central to its determination of regulatory outcomes. *Del. Dep't of Nat. Res. & Envtl. Control v. EPA*, 785 F.3d 1, 11, 13-14 (D.C. Cir. 2015); *Carlson v. Postal Regulatory Comm'n*, 938 F.3d 337, 344-45, 348-49 (D.C. Cir. 2019); *Sierra Club v. EPA*, 863 F.3d 834, 838-39 (D.C. Cir. 2017).

III. The appropriate remedy given the Final Rule's legal infirmities is for the Court to vacate the rule as unlawful and remand to DOE. DOE agrees that vacatur is the right remedy. DOE Br. 24. DOE concedes that it "held itself to the wrong evidentiary standard," and it surely did. *Id.*; *see also id.* at 16. Moreover, there is no substantial evidence—let alone clear and convincing evidence—supporting the Final Rule, and DOE cannot salvage the standards in the Final Rule in a non-arbitrary manner even on remand. This is not a case in which the

agency's error was a mere explanatory deficiency of action that may otherwise have been lawful, as Respondent-Intervenors suggest. Rather, the Final Rule suffers from serious legal deficiencies, and vacating it will not have disruptive consequences. *See Radio-Television News Directors Ass'n v. FCC*, 184 F.3d 872, 888 (D.C. Cir. 1999).

Contrary to Respondent-Intervenors' assertions, the immediate consequences of vacating the Final Rule on the status quo would be negligible. The amended standards DOE unlawfully purported to adopt in the Final Rule do not take effect until 2023, and the existing DOE efficiency standards will remain in place when the Final Rule is vacated. By contrast, remand without vacatur would be disruptive. Leaving the Final Rule in place on remand would require regulated parties to expend significant resources to comply with unlawful standards. It could also unintentionally lock in that unlawful standard because the Act's so-called "anti-backsliding" provision forbids DOE from prescribing amended standards that decrease the efficiency of covered products. *See* 42 U.S.C. § 6313(a)(6)(B)(iii)(I). It is critical, therefore, that the Court vacate the unlawful Final Rule and remand.

ARGUMENT

I. DOE Did Not Apply the Clear-and-Convincing-Evidence Standard to the Final Rule as Required by the Energy Policy and Conservation Act.

No one defends DOE's decision that it could adopt standards more stringent than existing American Society of Engineers standards *without* determining that

clear and convincing evidence supported those new standards. We addressed the Final Rule's erroneous statutory interpretation in our opening brief (Pet. Br. 23-37), and DOE has admitted the Final Rule's "conclusion rested on a legal error" (DOE Br. 16). Even Respondent-Intervenors do not defend DOE's interpretation of the statute. *See* Respondent-Intervenors Br. 18.

The undisputed legal error at the heart of the Final Rule—that DOE failed to read and apply the statute correctly—requires that this Court vacate it as unlawful. As DOE agrees, "[a]n agency Order that is at odds with the requirements of the applicable statute cannot survive judicial review." *United Parcel Serv., Inc.*, 955 F.3d at 1050; *see also* DOE Br. 16 (citing similar authorities). In addition, as argued in our opening brief, the Final Rule's conclusion that DOE could adopt more-stringent standards without clear and convincing evidence violated the law both by (1) failing to acknowledge or provide reasoned explanation for this deviation from DOE precedent, and (2) failing to provide the requisite notice before reversing DOE's longstanding position. Pet. Br. 37-40 (citing, *inter alia*, *Physicians for Soc. Responsibility v. Wheeler*, 956 F.3d 634, 644 (D.C. Cir. 2020), and *Envtl. Integrity Project v. EPA*, 425 F.3d 992, 998 (D.C. Cir. 2005)). Neither DOE nor Respondent-Intervenors dispute these independent grounds for holding the Final Rule unlawful, and DOE agrees that the interpretation of 42 U.S.C.

§ 6313(a)(6)(C) is "an outlier in an otherwise uninterrupted string of Department rules." DOE Br. 21.

In an attempt to defend the indefensible, Respondent-Intervenors try to rewrite history to make DOE's statutory-interpretation error "irrelevant." Respondent-Intervenors Br. 18. They acknowledge that DOE "question[ed] whether clear and convincing evidence was the appropriate standard" in the Final Rule. *Id.* at 21. They seek to defend the Final Rule on the basis of DOE's bare assertion that its determinations were supported by clear and convincing evidence, even though DOE itself concedes that it "held itself to the wrong evidentiary standard in issuing the rule." DOE Br. 24.

The progression of the proceeding contradicts Respondent-Intervenors' suggestion that the question of whether DOE had to satisfy a heightened evidentiary burden was simply harmless dictum that was of no consequence to the proceeding. DOE released a notice of proposed rulemaking (1) stating that it needed clear and convincing evidence to adopt more-stringent standards for commercial packaged boilers under the statute, and (2) tentatively concluding that there was such clear and convincing evidence. Energy Conservation Program: Energy Conservation Standards for Commercial Packaged Boilers, 81 Fed. Reg. 15835, 15837-38, 15843 (Mar. 24, 2016) ("*Proposal*") (JA138-39, JA144). Petitioners commented at length that the proposed amended standards were not

supported by clear and convincing evidence, as the statute required. *See*, *e.g.*, No. 0076-A1 at 6-7 (JA305-06); No. 0073-A1 at 3 (JA272). Then, in the Final Rule, DOE reversed its longstanding interpretation of the statute, asserting that it was "[i]mportant[]" that § 6313(a)(6)(B) "does not mention clear and convincing evidence" and explaining in a lengthy footnote that its "careful textual reading" was that the statute did "not impos[e] the 'clear and convincing' threshold for . . . [a 6-year lookback] rulemaking." Energy Conservation Program: Energy Conservation Standards for Commercial Packaged Boilers, 85 Fed. Reg. 1592, 1607-08 & n.21 (Jan. 10, 2020) ("*Final Rule*") (JA591-92). Respondent-Intervenors seek to elide the clear implication of that history, even though DOE candidly admitted the implausibility that the Final Rule "would have gone to such lengths to disavow the clear and convincing evidence requirement unless it considered the lower evidentiary standard to be important." DOE Br. 22.

Respondent-Intervenors rely on the thin reed of DOE's throwaway line in the Final Rule that "assuming that clear and convincing evidence is required here" notwithstanding its interpretation of the statute to the contrary, DOE "believes its findings fully satisfy that threshold." *Final Rule* at 1608 (JA592); *see* Respondent-Intervenors Br. 18. They likewise seize on DOE's statement in the Final Rule that it had a "strong conviction, well placed given the record as a whole," in its findings, as well as two other sentences in the entirety of the Final Rule where

DOE framed its decisions with reference to the phrase "clear and convincing evidence." *Final Rule* at 1608 (JA592); *see* Respondent-Intervenors Br. 19-20 (citing *Final Rule* at 1606, 1674 (JA590, JA658)).

But appellate review of agency decisionmaking is not a rubber stamp of agency belief and conviction, particularly where (as here) a statute specifically and intentionally places a heightened evidentiary burden on an agency that seeks to supersede standards Congress has otherwise directed the agency to adopt. Thus, this Court and others have held that "[m]erely referencing a requirement is not the same as complying with that requirement," and "[s]tating that a factor was considered—or found—is not a substitute for considering or finding it." *Gerber v. Norton*, 294 F.3d 173, 185 (D.C. Cir. 2002) (internal quotation marks and citations omitted); *see also*, *e.g.*, *Susquehanna Int'l Grp. v. SEC*, 866 F.3d 442, 446 (D.C. Cir. 2017) (concluding that "stating, not finding, is what the Commission did here," even though "the SEC's Order states that the Commission did make the necessary findings"); *Nat. Res. Def. Council, Inc. v. Pritzker*, 828 F.3d 1125, 1135 (9th Cir. 2016) ("An agency acts contrary to the law when it gives mere lip service or verbal commendation of a standard but then fails to abide the standard in its reasoning and decision.").

Here, despite snippets of the Final Rule that Respondent-Intervenors highlight, DOE correctly admits that its conclusions "f[ell] short of that standard"

and explains that statements like those Respondent-Intervenors latch onto "do[] not establish that the Department made a sufficiently 'considered conclusion' pursuant to the statutorily mandated clear and convincing evidence standard." DOE Br. 22-24. Moreover, consistent with DOE's admission, Petitioners described in our opening brief how DOE resolved specific challenges to flaws in the evidentiary record in ways that demonstrate that it did not hold itself to this higher standard—*e.g.*, by papering over factual gaps with arbitrary assumptions. Pet. Br. 41-46. Respondent-Intervenors cite (at 29-30, 34-35) cases permitting agencies to rely on a limited amount of available data so long as it was generally adequate, but those cases did not involve the heightened clear-and-convincing-evidence standard.[1] Section 6313(a)(6)'s clear-and-convincing-evidence requirement is relatively unusual—and expressly requires more from DOE and constrains its discretion when it seeks to supersede the established American Society of Engineers standard. We discuss in Section II below why there was, in fact, not clear and convincing evidence supporting the economic-justification determination in the Final Rule; in all events, however, the way DOE addressed these issues is

[1] *See, e.g.*, *Nat'l Ass'n for Surface Finishing v. EPA*, 795 F.3d 1 (D.C. Cir. 2015) (not involving requirement of clear and convincing evidence); *Nat. Res. Def. Council v. EPA*, 529 F.3d 1077 (D.C. Cir. 2008) (same); *Sierra Club v. EPA*, 167 F.3d 658 (D.C. Cir. 1999) (same); *Nat. Res. Def. Council, Inc. v. Herrington*, 768 F.2d 1355 (D.C. Cir. 1985) (same); *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506 (D.C. Cir. 1983) (same).

consistent with its admission that it "held itself to the wrong evidentiary standard in issuing the rule." DOE Br. 24. Because DOE incorrectly read the statute and failed to apply the mandated clear-and-convincing-evidence standard, the Final Rule must be vacated.

II. DOE's Determination that the Standards Were Economically Justified Was Arbitrary and Unsupported by Substantial Evidence, Let Alone Clear and Convincing Evidence.

As Petitioners have shown, DOE's determinations that the standards were economically justified were arbitrary and unsupported by substantial evidence, let alone clear and convincing evidence. Respondent-Intervenors' efforts to suggest otherwise start with an appeal for the Court to apply an extremely deferential standard of review. Their argument is that the clear-and-convincing-evidence standard is not a standard for judicial review and that the Court must therefore affirm if DOE's determinations are supported only by *substantial evidence*. Respondent-Intervenors Br. 23-24. Respondent-Intervenors then cite *Ahmed v. Lynch*, 804 F.3d 237 (2d Cir. 2015), for the proposition that—under the substantial-evidence standard—the court "must affirm" the agency's determinations "unless 'any rational trier of fact would be compelled to conclude that the proof did not rise to the level of clear and convincing evidence.'" Respondent-Intervenors Br. 25.

This argument is based on cases involving judicial review of findings of fact rendered in adjudicatory proceedings, a context in which appellate courts show particular deference to the judgment of fact finders to whom the relevant evidence was directly presented. *See* Respondent-Intervenors Br. 23-25. This is not such a case. Nor—unlike *Ahmed v. Lynch*—is it a case in which a statutory provision specifies that, for purposes of judicial review, the agency's findings of fact are "conclusive unless any reasonable adjudicator would be compelled to conclude to the contrary." *Hana v. Gonzales*, 400 F.3d 472, 475 (6th Cir. 2005) (quoting 8 U.S.C. § 1252(b)(4)(B)) (citation omitted). This case involves review of a rulemaking in which the agency had the authority to take the action it did only if it made specified determinations that were supported by clear and convincing evidence.

In the rulemaking context, agency factual determinations are ordinarily reviewed under the arbitrary-and-capricious standard. While the arbitrary-and-capricious and substantial-evidence standards are often characterized as equivalent, *see Genuine Parts Co. v. EPA*, 890 F.3d 304, 312 (D.C. Cir. 2018), the arbitrary-and-capricious standard must be "contextually tailored," *Dist. Hosp. Partners, L.P. v. Burwell*, 786 F.3d 46, 57 (D.C. Cir. 2015), and where—as here—a judicial review provision makes both standards applicable to the review of notice-and-comment rulemaking, it is particularly important for the agency to "specify the

evidence on which it relied and to explain how that evidence supports the conclusion it reached." *Wisc. Gas Co. v. FERC*, 770 F.2d 1144, 1156 (D.C. Cir. 1985) (citation omitted).

The clear-and-convincing-evidence standard plainly raises the bar. As DOE has recognized in recent rulemaking and admitted in this case, that standard effectively directs DOE to resolve substantial doubts against the need for standards that would conflict with an internationally-recognized benchmark standard with which DOE's standards are otherwise required to conform. *See* Energy Conservation Program for Appliance Standards: Procedures for Use in New or Revised Energy Conservation Standards and Test Procedures for Consumer Products and Commercial/Industrial Equipment, 85 Fed. Reg. 8626, 8642 (Feb. 14, 2020); DOE Br. 23. DOE plainly failed to follow that statutory direction when it adopted the Final Rule. Indeed—even apart from the clear-and-convincing-evidence standard—DOE failed to carry its burden to justify its standards on the basis of reasoned determinations supported by "substantial evidence in the record." *Defs. of Wildlife and Ctr. for Biological Diversity v. Jewell*, 815 F.3d 1, 9 (D.C. Cir. 2016).

Petitioners identified several critical issues for which necessary evidence was lacking. To quantify the economic savings the standards would provide, DOE needed to determine the extent to which purchasers are already buying standards-

compliant products. Yet DOE lacked data on the efficiency of commercial boilers currently being sold (referred to as "shipment data"). It also lacked data on two other critical determinants of the savings efficiency improvements would provide: the amount of use the relevant products see (in this case, "burner operating hours," a parameter required to quantify the energy savings resulting from efficiency improvements) and marginal energy prices (a parameter required to convert energy savings to utility bill savings).[2] Respondent-Intervenors suggest that DOE merely lacked "perfect" information on these issues and claim that nothing requires DOE to rely on any "particular kinds of evidence." Respondent-Intervenors Br. 29-30. However, DOE's determinations must be supported by evidence that addresses the relevant factual issues. In these three instances, DOE admitted that it lacked data addressing a specific (and critical) factual issue and then made arbitrary or unsubstantiated efforts make do with data addressing *other* issues instead.

DOE admitted that it lacked shipment data for six of the eight categories of products covered by its standards and that it filled these critical data gaps by using information on the distribution of efficiencies for published model listings instead. Pet. Br. 42. Respondent-Intervenors argue that this amounts to "reliance on less

[2] Oddly, Respondent-Intervenors address two of these issues as though they relate only to DOE's determination that the standards would result in significant additional conservation of energy (Respondent-Intervenors Br. 29-30); in fact, all three are critical inputs for DOE's economic analysis.

than perfect information." Respondent-Intervenors Br. 30. However, information on the distribution of efficiencies in published model listings is *not* information on the distribution of efficiencies for products being sold, and evidence of one thing is not evidence of another just because the two things sound similar. *See Nat'l Fuel Gas Supply Corp. v. FERC*, 468 F.3d 831, 841 (D.C. Cir. 2006) (agency "provided no evidence" with respect to *non-marketing* affiliates where it relied on evidence concerned *marketing* affiliates). The published availability of a model provides no information quantifying the sales volume for that model, and manufacturers commenting on the issue were unanimous in stating that the distribution of model listings is not representative of the distribution of product sales. *See* Pet. Br. 42. There is no evidence in the record supporting DOE's assumption to the contrary. While the Final Rule refers to an analysis purportedly suggesting a similarity between the distribution of model listings and product sales for two of the eight categories of products at issue, there is no evidence of this in the record and thus no substantial evidence supporting DOE's otherwise-arbitrary assumption that information on model listings provide "a reasonable surrogate" for information quantifying product sales. *See Ctr. for Auto Safety v. Fed. Highway Admin.*, 956 F.2d 309, 314 (D.C. Cir. 1992) (factual premise of rulemaking was unsupported by substantial evidence where the agency relied on studies not included in the administrative record).

DOE also admitted that it lacked data on "burner operating hours." In this case, DOE performed an analysis that purportedly used data on other issues to generate data on the relevant issue. Comments included a technical report concluding that this analysis utilized unreliable data and an "unsupported assumption" and produced "highly questionable" results with extreme outliers that "distort" the results of DOE's economic analysis by overstating potential regulatory benefits. No. 0076-A1 at 37-40 (JA336-39). Respondent-Intervenors note (at 34 n.12) that DOE updated its analysis based on a newer version of the same data, but there is no indication that this would address the evident problems with DOE's assumption or the nature of the data itself, and DOE's response to comment addressing the report did not suggest that it did. *See Final Rule* at 1637 (JA621). DOE simply recited the concerns expressed and—rather than defending its approach on the merits—stated that it lacked the data it needed and would therefore continue to rely on its analysis of other data by default. *Id*.

DOE also admitted that it lacked the data on marginal prices needed to determine utility bill impacts. In this case, it had its consultants perform analyses that purportedly used other data to generate marginal price numbers. *See* Pet. Br. 43-44. Respondent-Intervenors suggest (at 37) that DOE used the "best aggregate sources for energy prices currently available," but that data included *no data* on marginal energy prices. DOE's "detailed" description of how it

purportedly used the data it had to generate the data it needed is inscrutable even to gas utilities, and the numbers DOE ultimately used for marginal energy prices are not disclosed.[3] Moreover, the analysis itself is not in the record and thus may not be relied upon "to provide the requisite evidentiary support during judicial review." *Ctr. for Auto Safety*, 956 F.2d at 314. All the record reflects is that DOE started with the *wrong data* (*see* No. 0061-A1 at 171-73 (JA240-42)) and somehow used it to derive numbers used as critical inputs in its economic analysis. The record support for these numbers amounts to an assertion that "the numbers are what DOE (at least DOE's consultants) said they are," and that is not *substantial evidence*, let alone clear and convincing evidence. *See Algonquin Gas Transmission Co.*, 948 F.2d at 1313.

These issues involve basic questions of fact about the products purchasers buy, the amount of use these products see, and the impact that energy savings would have on the utility bills customers pay. DOE's determinations on these issues are not unverifiable predictions; they are assertions of ascertainable fact "capable of, but entirely lacking in, substantiation." *McDonnell Douglas Corp. v.*

[3] DOE did not determine marginal prices simply by applying a marginal price factor to average price data, as Respondent-Intervenors appear to suggest. Respondent-Intervenors Br. 37. Petitioner Spire Inc. tried to compare DOE's numbers with actual marginal price data, but—due to DOE's use of multiple adjustment factors (apparently in different combinations)—was unable to identify the marginal prices DOE actually used.

U.S. Dep't of Air Force, 375 F.3d 1182, 1191 n.6 (D.C. Cir. 2004). DOE had an obligation to make determinations supported by actual evidence and—in the absence of such evidence—it was obliged *not to make unsupported determinations*. It was not free to respond to a lack of necessary information by filling critical data gaps on the basis of arbitrary assumptions or unsupported assertions, particularly where—as here—"the evidence fairly allows investigation" of the issues. *Gas Appliance Mfrs. Ass'n v. Dep't of Energy*, 998 F.2d 1041, 1047 (D.C. Cir. 1993) (quoting *Nat. Res. Def. Council, Inc. v. Herrington*, 768 F.2d at 1391). There was no excuse for DOE's failure to collect critical information needed to support its determinations, most conspicuously in the case of information on marginal energy prices. Such information is publicly available and can reasonably be collected, as Petitioner Spire Inc. demonstrated by submitting actual marginal price information for the State of Missouri. *See* No. 0073-A1 at 19 (JA288). The only reason the "best aggregate sources for energy prices currently available" does not include data on marginal energy prices is that DOE—which collects the data in question from utilities and others—does not ask for it.

The more fundamental issue is that the entire premise of the Final Rule—and the basis for its claim that the standards would provide economic benefits for consumers—is based squarely on a factual premise for which no credible evidence exists: the premise that the business and institutional purchasers of commercial

packaged boilers are so oblivious to the economic consequences of their purchasing decisions that the investments in standards-compliant boilers they choose to decline are—at least on average—economically beneficial. *See* Pet. Br. 47-50. Commenters challenged this premise, pointing out that the business and institutional purchasers of such products routinely consider the economics of such investments, and that there is therefore no basis to suggest that new standards would provide net economic benefits. *See id.* at 48. DOE pointed to no evidence to the contrary. *See id.* at 48-50.

The issue was plainly critical, because DOE's own numbers indicated that the average economic outcome of efficiency investments resulting from the standards would depend on the extent to which purchases made in the absence of new standards reflect any statistically significant preference for economically beneficial investments or aversion to net cost investments. *See id.* at 51-52. Nevertheless, DOE declined to consider the impact that actual consumer purchasing preferences would have on the economic consequences of its standards and—for purposes of its economic analysis—assumed that no such preferences exist. *See id.* at 52-53. DOE did not contend that such preferences do not actually exist or they would not have a material impact on the economic consequences of its standards; yet it assigned individual efficiency investments (and thus their economic outcomes) to the "base" and "rule outcome" cases randomly, as though

purchasers of standards-compliant boilers have no statistically significant preference for economically beneficial investments or aversion to net cost investments regardless of the magnitude of the economic stakes involved. *See id.* at 52-53.

Respondent-Intervenors considerably understate the significance of these issues. Petitioners do not merely claim that DOE "erroneously assumed that some purchasers choose to buy cheaper, less efficient boilers, even though more expensive, standards-compliant versions would ultimately save them money over time." Respondent-Intervenors Br. 37. Petitioners object to DOE's absurd assumption that purchasers of commercial boilers *never consider the economics of their purchases at all*. One effect of this assumption is that some purchasers would fail to choose more efficient boilers *even if they are "cheaper" to purchase and install*, a result that grossly overstates the potential for standards to provide economic benefits. *See* Pet. Br. 53-54 & n.1. Another is that purchasers would be just as likely to make substantial net-cost investments on their own as they would be due to standards that left them no choice, a result that further skews the distribution of economic outcomes for investments ostensibly resulting from new standards and produces an *understatement of the percentage of consumers that would incur net costs* as a result of new standards. Respondent-Intervenors' assertion to the contrary (at 48-49) is false. *See* Pet. Br. 57.

Respondent-Intervenors seek to portray Petitioners' claims as a challenge to the use of Monte Carlo simulations or a choice between competing models. *See* Respondent-Intervenors Br. 41-46. However, Petitioners challenge DOE's arbitrary assumption of the core premise that purchasers of commercial boilers have a substantial tendency to decline economically beneficial investments in standards-compliant boilers and arbitrary failure to consider the impact that actual purchasing behavior would have on the economic consequences of new standards, which was plainly "an important aspect of the problem" imposed by DOE's need to demonstrate that its standards are economically justified. *See* Pet. Br. 51, 57-58. The issue relating to DOE's economic analysis is a straightforward challenge to DOE's reliance on an unreasonable assumption that purchasers of commercial boilers have no statistically significant preference for economically beneficial efficiency investments or aversion to net cost investments regardless of the economic stakes involved. *Id.* at 57-58.

Respondent-Intervenors also suggest that DOE did not quite do what Petitioners have described, claiming that Petitioners' characterization of DOE's analysis is "incomplete" and "potentially misleading." Respondent-Intervenors Br. 43. This claim is inaccurate and is based on efforts to confuse the distinction between two different but similar-sounding issues.

The "shipment data" issue previously discussed involves the question of *how many* investments in standards-compliant products would occur in the absence of new standards. The relevant question here is whether the *distribution of economic outcomes* for those investments is such that—at least on average—they would be economically beneficial for consumers. As Petitioners explained, DOE "accounted for" the fact that consumers already purchase standards-compliant boilers only by accounting for the distribution of efficiencies for boilers being sold in the absence of standards (*i.e.*, the question of *how many* standards-compliant products would be sold in the absence of new standards); it made no effort to account for the impact that purchaser preferences would have on the distribution of economic outcomes for those investments. *See* Pet. Br. 52. Consequently, Respondent-Intervenors' repeated suggestions to the effect that "the Department's method for estimating consumer savings recognized and accounted for consumers that already purchase standards-compliant boilers" (Respondent-Intervenors Br. 15-16, 38, 43-44) are true to the extent that DOE sought to account for the *number of investments* in standards-compliant boilers that would occur as a result of new standards, but false to the extent they suggest that DOE accounted for the impact that purchasing preferences would have on the distribution of economic outcomes for those investments. Similarly, claims to the effect that "for each uncertain variable (such as equipment efficiency), [DOE's] simulations selected a

value *based on the probability of that value occurring*" (Respondent-Intervenors Br. 16, 42-43 (emphasis added)) are false as applied to the issue at hand.[4]

DOE's economic analysis *did not* assign individual investments in standards-compliant products (and hence their economic outcomes) to the base case or standards case based on the probability that purchasers would make such investments on their own; it did so randomly—without any consideration of real-world purchasing behavior—as though purchasers of commercial boilers have no statistically significant preferences with regard to the economic consequences of their purchasing decisions. *See* Pet. Br. 52-53. This is not something DOE "purportedly" did (Respondent-Intervenors Br. 16); it is what DOE actually did, as DOE has since confirmed. *See* DOE Br. 7 ("the Department used a random distribution to assign expected shipments of different types of commercial boilers to consumers"). DOE's response to comment did not suggest that its assignment of particular investments in standards-compliant boilers (and hence their economic outcomes) to the base case or standards case was "not entirely random" or only "in

[4] Stated as a rebuttal to the proposition that DOE's analysis did not account for the extent to which purchases made in the absence of new standards reflect economic preferences, the claim that DOE's analytical approach "accounts for real-world consumer behavior by factoring consumer choices into the probability that the model will pick a particular value in any given run of the simulation" (Respondent-Intervenors Br. 44) is particularly misleading.

part random." Respondent-Intervenors Br. 43, 46.[5] Instead, it expressly acknowledged—and did not contest—Petitioners' description of its analysis, including the point that it effectively assumed that purchasers never consider the economic consequences of their purchasing decisions. *Final Rule* at 1637-38 (JA621-22).

Besides confusing the facts, Respondent-Intervenors seek to justify DOE's assumption on the basis of assertions concerning the availability of information and "misaligned incentives." Respondent-Intervenors Br. 38-40. It is difficult to see how such considerations could justify the assumption that purchasers of commercial boilers have no statistically significant economic preferences, and there is no evidence that they have any substantial impact on purchases of such products. While DOE mentioned such considerations in the abstract, it did so in a perfunctory and evidence-free recital provided to cover DOE's bases with respect to "Procedural Issues and Regulatory Review." *Final Rule* at 1676 (JA660). All that discussion demonstrates is that DOE failed to engage in reasoned decisionmaking by "[p]rofessing that [its rule] ameliorates a real industry problem but then citing no evidence demonstrating that there is in fact an industry problem." *Nat'l Fuel Gas Supply Corp.*, 468 F.3d at 843; *see* Pet. Br. 49-50.

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[5] DOE made these statements in an earlier notice issued in a different rulemaking proceeding—in which they were criticized as misleading—and did not repeat them in the Final Rule.

DOE did not even attempt to justify its assumption on the grounds Respondent-Intervenors raise. DOE never even mentioned labeling requirements and only raised the *possibility* of inadequate information by stating that an assumption that purchasers would *always* make the most favorable efficiency investments "presumes information that may not be available to all purchasers." *Final Rule* at 1637 (JA621). Such speculation does not amount to an assertion—much less evidence—that purchasers of commercial boilers *never* consider the economic consequences of their purchases. Accordingly, these arguments fail because it is a "foundational principle of administrative law that a court may uphold agency action only on the grounds that the agency invoked when it took the action." *Michigan v. EPA*, 576 U.S. 743, 758 (2015). It follows that—just as a court must reject the *post hoc* rationalizations of an agency—so too must it reject Respondent-Intervenors' efforts to supply justifications for the rule that DOE did not rely upon at the time of the Final Rule's adoption. *See Dep't of Homeland Sec. v. Regents of the Univ. of Cal.*, 140 S. Ct. 1891, 1909 (2020) ("we refer to this as a prohibition on *post hoc* rationalizations, not advocate rationalizations, because the problem is the timing, not the speaker").

The suggestion that the Court should "defer[] to an agency's understanding of the markets it regulates" (Respondent-Intervenors Br. 41) fails for the same reason: DOE never suggested that its assumption was based on any particular

knowledge or expertise, and it certainly did not "explain how its knowledge or experience supports" the assumption that purchasers of commercial boilers invest in more efficient boilers without any consideration of the economic consequences. *McDonnell Douglas Corp.*, 375 F.3d at 1190-91 & n.4 (reliance of agency experience is arbitrary in the absence of such an explanation).

DOE's only justification for its assumption that purchasers of commercial boilers never consider the economic consequences of their decisions was a claim that it lacked the information it needed to design an elaborate "consumer choice" model to account for a broader range of issues and was therefore entitled to use a patently unreasonable assumption that systematically overstates the potential for standards to provide economic benefits as a default. *See* Pet. Br. 53. Respondent-Intervenors add nothing to the credibility of that effort to make the unnecessarily elaborate the enemy of the reasonable. *See id.* at 58-59.

Respondent-Intervenors' final argument—that DOE's standards are economically justified by factors such as the need for energy conservation or environmental concerns (Respondent-Intervenors Br. 49-50)—fails for the same reason its *post-hoc* justifications for DOE's assumption fails: DOE's justification for its standards plainly treated the results of its life cycle cost analysis as critical,[6]

[6] *See Final Rule* at 1673-74 (JA657-58) (identifying life-cycle cost outcomes as a basis for DOE's determinations that the efficiency levels required by its

so the standards cannot now be upheld on the theory that they were not. *Genuine Parts Co.*, 890 F.3d at 314.

III. Vacatur and Remand Is the Only Appropriate Remedy.

The Court should vacate the Final Rule as unlawful and remand to DOE. The Final Rule's multiple flaws cannot simply be remedied by further explanation. DOE concedes that it failed to apply the evidentiary standard that is required by statute, and it surely did. DOE Br. 16. It expressly declines to defend the Final Rule from substantive challenge, explaining that it relied on an erroneous interpretation of the statute and "held itself to the wrong evidentiary standard." *Id.* at 24. And notwithstanding Respondent-Intervenors' attempts to defend the Final Rule on the merits, it lacks substantial evidence—let alone clear and convincing evidence—to support it. The immediate consequences of vacating the Final Rule on the status quo are negligible. The amended standards DOE unlawfully adopted do not go into effect until 2023 and the existing DOE efficiency standards will remain in place when the Final Rule is vacated. In this situation, a mere remand without vacatur would be an inadequate and incorrect remedy.

When a reviewing court finds that an agency unlawfully adopted a rule or regulation, "vacatur is the normal remedy." *Allina Health Servs. v. Sebelius*, 746

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standards were economically justified and that more stringent efficiency levels were not).

F.3d 1102, 1110 (D.C. Cir. 2014). A court may order remand without vacatur when an agency takes "action that is potentially lawful but insufficiently or inappropriately explained." *Radio-Television News Directors Ass'n*, 184 F.3d at 888. The appropriate remedy "depends on the 'seriousness of the order's deficiencies' and the likely 'disruptive consequences' of vacatur." *Allina Health Servs.*, 746 F.3d at 1110 (quoting *Allied–Signal, Inc. v. U.S. Nuclear Regulatory Comm'n*, 988 F.2d 146, 150-51 (D.C. Cir. 1993)).

Here, both factors strongly weigh in favor of vacating the Final Rule. The Department erred by failing to make a statutorily-required determination under the correct evidentiary standard (as described in Section I, above) and by basing its economic-justification analysis on an arbitrary and plainly erroneous assumption that substantially overstated the potential for standards to produce economic benefits for consumers (as described in Section II). Neither of those was a mere failure by DOE to explain adequately its decision. And it is difficult to foresee *any* disruptive consequences from vacating a rule that will not impose binding compliance obligations until 2023, especially since vacatur would simply leave DOE's existing efficiency standards in place.

Respondent-Intervenors misunderstand the nature of the deficiency of the Final Rule when they claim (at 51) that it can easily be fixed by the Department's providing a better explanation on remand. At the risk of being overly repetitive,

DOE expressly represents to this Court that it "held itself to the wrong evidentiary standard." DOE Br. 24. Contrary to Respondent-Intervenors' claims, *see* Respondent-Intervenors Br. 50, the terseness of the scattered references to clear and convincing evidence in the Final Rule is not an explanatory deficiency, but evidence of DOE's failure to make the appropriate, statutorily-required finding. *See* Section I, *supra*. On remand, the Department's task would be to conduct the analysis under the clear-and-convincing-evidence standard, not just try again to provide a better explanation.[7] The mere claim that the Department *could*, perhaps, adopt the same standards adopted in the Final Rule after correctly applying the standard does not mean that the rule can be upheld in the interim. This Court regularly vacates rules without "foreclos[ing] the possibility" that the agency will "re-adopt[] the same rule on remand." *Ill. Pub. Telecomm. Ass'n v. FCC*, 123 F.3d 693, 694 (D.C. Cir. 1997) (quoting *Petroleum Commc'ns, Inc. v. FCC*, 22 F.3d 1164, 1173 (D.C. Cir. 1994)).

[7] The Court should decline Respondent-Intervenors' invitation for a "supplemental brief" from DOE "clarifying its positions" on the appropriate remedy. Respondent-Intervenors Br. 51 n.15. There is nothing to "clarify" in DOE's position that "this Court should vacate the rule and remand this case back to the Department." *See* DOE Br. 14. The change in administration does not change either DOE's express representation to the Court that it "held itself to the wrong evidentiary standard in issuing the rule," *id.* at 24, or the absence of clear and convincing evidence supporting the rule. These are not policy issues the resolution of which might shift with the political winds.

Moreover, it is plain from DOE's actual analysis in the Final Rule that the economic benefits that it cited to justify the standards were the product of a fundamentally flawed assumption. *See* Section II, *supra*. As Petitioners have made clear, DOE did not justify the Final Rule under the substantial-evidence standard, much less the higher clear-and-convincing-evidence standard. There is virtually no chance that DOE could justify the same standards it adopted in a non-arbitrary manner.

Respondent-Intervenors do not raise any "disruptive consequences" that would likely arise from vacatur, and for good reason: for practical purposes, vacatur would preserve the standards that were already in place before the Final Rule. This is plainly not a case "in which the 'egg has been scrambled,' and it is too late to reverse course." *Allina Health Servs.*, 746 F.3d at 1110-11. Compliance with the amended standards adopted in the Final Rule is not currently required. And before the Department issues new standards for commercial packaged boilers, should it choose to do so, the standards that became effective only in 2012 will continue to apply. *See Final Rule* at 1602 (JA586). Additionally, as DOE observed, vacatur of the Final Rule would have the benefit of allowing the Department to write on a clean slate and incorporate the results of a pending peer review of the methodologies it uses to evaluate efficiency standards. *See* DOE Br. 25. Remand without vacatur, by contrast, would inappropriately

require regulated parties with a looming deadline to expend considerable resources to bring products into compliance with heightened efficiency standards that DOE admits it adopted unlawfully and agrees must be vacated.

Vacatur also is necessary to make clear that the statute's so-called "anti-backsliding" provision does not come into play. That provision bars the Department from adopting standards that decrease the efficiency of covered products. 42 U.S.C. § 6313(a)(6)(B)(iii)(I). DOE has previously identified an analogous provision in the Act as creating a "risk that the Department would be unable to undo" even basic and obvious errors in its rules, with "challeng[ing] [a standard] in court" being one of few available options. Energy Conservation Program: Establishment of Procedures for Request for Correction of Errors in Rules, 81 Fed. Reg. 26998, 26999 (May 5, 2016). If this Court were to remand without vacating the Final Rule, the anti-backsliding provision could arguably be read to lock the Department into the unlawfully adopted standard.

This case is unlike those cited by Respondent-Intervenors where this Court ordered remand without vacatur based on the ongoing environmental benefits of a defective rule. There, vacatur of the regulations at issue would have meant "remov[ing] many limitations on emissions of hazardous air pollutants" already in place or other immediate "harmful consequences" contrary to the aims of the relevant environmental protection statutes. *U.S. Sugar Corp. v. EPA*, 844 F.3d

268, 270 (D.C. Cir. 2016) (per curiam). This is not a case where vacatur "would have serious adverse implications for public health and the environment," *Nat. Res. Def. Council v. EPA*, 489 F.3d 1250, 1265 (D.C. Cir. 2007) (Rogers, J., concurring in part). Vacatur of the Final Rule would mean only the continued application of the current efficiency standard issued by the Society and previously codified by DOE, which is the Act's intended result when there is not clear and convincing evidence that a more stringent standard is justified. *See* Pet. Br. 33-34.

CONCLUSION

For all the foregoing reasons, the Court should hold unlawful and vacate the Final Rule.

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Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

I certify that the foregoing brief complies with the requirements of Federal Rule of Appellate Procedure 32(a)(5) and (a)(6) because it has been prepared in 14-point Times New Roman font. I further certify that this brief complies with the type-volume limitation of this Court's order of September 21, 2020, because, excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(f) and D.C. Circuit Rule 32(e)(1), it contains 7,490 words according to the word-count feature of Microsoft Word.

/s/ Scott Blake Harris
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CERTIFICATE OF SERVICE

I certify that on this 21st day of April, 2021, the foregoing brief was filed via CM/ECF. Service was accomplished on all parties or their counsel of record via CM/ECF.

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