



DEPARTMENT OF ENERGY

10 CFR Part 431

[EERE-2022-BT-STD-0014]

RIN 1904-AF39

Energy Conservation Program: Energy Conservation Standards for Small Electric Motors

AGENCY: Office of Critical Minerals and Energy Innovation, Department of Energy.

ACTION: Final determination.

SUMMARY: The Energy Policy and Conservation Act, as amended (“EPCA”), prescribes energy conservation standards for various consumer products and certain commercial and industrial equipment, including small electric motors (“SEMs”). EPCA also requires the U.S. Department of Energy (“DOE”) to periodically determine whether more-stringent standards would be technologically feasible and economically justified, and would result in significant conservation of energy. In this final determination, DOE has determined that more-stringent energy conservation standards for SEMs would not be cost-effective and, therefore, DOE has determined that energy conservation standards for SEMs should not be amended.

DATES: The effective date of this final determination is [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

ADDRESSES:

Docket: The docket, 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. However, not all documents listed in the index may be publicly available, such as information that is exempt from public disclosure.

The docket webpage can be found at www.regulations.gov/docket/EERE-2022-BT-STD-0014. The docket webpage contains instructions on how to access all documents, including public comments, in the docket.

For further information on how to review the docket, contact the Appliance and Equipment Standards Program staff at (202) 287-1445 or by email:

ApplianceStandardsQuestions@ee.doe.gov.

FOR FURTHER INFORMATION CONTACT:

Mr. Jeremy Domm, U.S. Department of Energy, Office of Critical Minerals and Energy Innovation, Building Technologies Office, EE-5B, 1000 Independence Avenue, SW, Washington, DC, 20585-0121. Telephone: (202) 994-8232. Email:

ApplianceStandardsQuestions@ee.doe.gov.

Mr. Uchechukwu “Emeka” Eze, U.S. Department of Energy, Office of the General Counsel, GC-33, 1000 Independence Avenue, SW, Washington, DC, 20585-0121. Telephone: (202) 586-4798. Email: uchechukwu.eze@hq.doe.gov.

SUPPLEMENTARY INFORMATION:

Table of Contents

- I. Synopsis of the Final Determination
- II. Introduction
 - A. Authority
 - B. Background
 - 1. Current Standards
 - 2. History of Standards Rulemakings for Small Electric Motors
- III. Rationale of Analysis and Discussion of Related Comments
 - A. General Comments
 - B. Technological Feasibility
 - C. Cost-Effectiveness
- IV. Final Determination
 - A. Technological Feasibility
 - B. Cost-Effectiveness
 - C. Significant Conservation of Energy
 - D. Conclusion
- V. Procedural Issues and Regulatory Review
 - A. Review Under Executive Order 12866
 - B. Review Under the Regulatory Flexibility Act
 - C. Review Under the Paperwork Reduction Act
 - D. Review Under the National Environmental Policy Act of 1969

- E. Review Under Executive Order 13132
 - F. Review Under Executive Order 12988
 - G. Review Under the Unfunded Mandates Reform Act of 1995
 - H. Review Under the Treasury and General Government Appropriations Act, 1999
 - I. Review Under Executive Order 12630
 - J. Review Under the Treasury and General Government Appropriations Act, 2001
 - K. Review Under Executive Order 13211
 - L. Review Under Additional Executive Orders and Presidential Memoranda
 - M. Review Under the Information Quality Bulletin for Peer Review
 - N. Congressional Notification
- VI. Approval of the Office of the Secretary

I. Synopsis of the Final Determination

The Energy Policy and Conservation Act, Public Law 94-163, as amended (“EPCA”),¹ authorizes DOE to regulate the energy efficiency of a number of consumer products and certain industrial equipment. (42 U.S.C. 6291–6317) Title III, Part C of EPCA² established the Energy Conservation Program for Certain Industrial Equipment. (42 U.S.C. 6311-6317) Such equipment includes small electric motors (“SEMs”), the subject of this final determination.

DOE is issuing this final determination pursuant to the EPCA requirement that not later than 3 years after a determination that standards for the equipment do not need to be amended, DOE must publish either a notification of determination that standards for the equipment do not need to be amended, or a notice of proposed rulemaking (“NOPR”) including new proposed energy conservation standards (proceeding to a final rule, as appropriate). (42 U.S.C. 6316(a); 42 U.S.C. 6295(m)(3)(B))

For this final determination, DOE analyzed small electric motors subject to standards specified in 10 CFR 431.446. DOE first analyzed the technological feasibility of more energy-efficient SEMs. For those SEMs for which DOE determined higher standards to be technologically feasible, DOE evaluated whether higher standards would

¹ All references to EPCA in this document refer to the statute as amended through the Energy Act of 2020, Public Law 116-260 (Dec. 27, 2020), which reflect the last statutory amendments that impact Parts A and A-1 of EPCA.

² For editorial reasons, upon codification in the U.S. Code, Part C was redesignated Part A-1.

be cost-effective by conducting life-cycle cost (“LCC”) and payback period (“PBP”) analyses.

Based on the results of the analyses, summarized in section VII of this document, DOE has determined that current standards for SEMs do not need to be amended and is issuing this final determination accordingly.

II. Introduction

The following section briefly discusses the statutory authority underlying this final determination, as well as some of the historical background relevant to the establishment of standards for SEMs.

A. Authority

EPCA authorizes DOE to regulate the energy efficiency of a number of consumer products and certain industrial equipment. Title III, Part C of EPCA (42 U.S.C. 6311-6317, as codified), added by Public Law 95-619, Title IV, section 441(a), established the Energy Conservation Program for Certain Industrial Equipment, which sets forth a variety of provisions designed to improve energy efficiency. This equipment includes SEMs, the subject of this document. (42 U.S.C. 6311(13)(G)) EPCA directed DOE to prescribe initial test procedures and standards for this equipment. (42 U.S.C. 6317(b))

The energy conservation program under EPCA consists essentially of four parts: (1) testing, (2) labeling, (3) the establishment of Federal energy conservation standards, and (4) certification and enforcement procedures. Relevant provisions of EPCA include definitions (42 U.S.C. 6311), test procedures (42 U.S.C. 6314), labeling provisions (42 U.S.C. 6315), energy conservation standards (42 U.S.C. 6313), and the authority to require information and reports from manufacturers (42 U.S.C. 6316; 42 U.S.C. 6296(a), (b), and (d)).

Federal energy efficiency requirements for covered equipment established under EPCA generally supersede State laws and regulations concerning energy use or

efficiency of covered equipment. (42 U.S.C. 6316(a) and 42 U.S.C. 6316(b); 42 U.S.C. 6297(b)-(c)) DOE may, however, grant waivers of Federal preemption in limited instances for particular State laws or regulations, in accordance with the procedures and other provisions set forth under EPCA. (42 U.S.C. 6316(a), applying the preemption waiver provisions of 42 U.S.C. 6297(d))

Subject to certain criteria and conditions, DOE is required to develop test procedures to measure the energy efficiency, energy use, or estimated annual operating cost of each covered equipment. (42 U.S.C. 6316(a); 42 U.S.C. 6295(o)(3)(A) and 6295(r)) Manufacturers of covered equipment must use the Federal test procedures as the basis for certifying to DOE that their equipment complies with the applicable energy conservation standards adopted pursuant to EPCA (42 U.S.C. 6316(a); 42 U.S.C. 6295(s)) and when making representations about the energy consumption of that equipment (42 U.S.C. 6314(d)). Similarly, DOE must use these test procedures to determine whether the equipment complies with relevant standards promulgated under EPCA. (42 U.S.C. 6316(a); 42 U.S.C. 6295(s)) The DOE test procedures for SEMs appear at 10 CFR 431.444.

EPCA requires that, not later than 6 years after the issuance of any final rule establishing or amending a standard, DOE must publish either a notice of determination that standards for the equipment do not need to be amended, or a NOPR including new proposed energy conservation standards (proceeding to a final rule, as appropriate). (42 U.S.C. 6316(a); 42 U.S.C. 6295(m)(1)) EPCA further provides that, not later than 3 years after the issuance of a final determination not to amend standards, DOE must publish either a notification of determination that standards for the equipment do not need to be amended, or a NOPR including new proposed energy conservation standards (proceeding to a final rule, as appropriate). (42 U.S.C. 6316(a); 42 U.S.C. 6295(m)(3)(B))

DOE must make the analysis on which a determination is based publicly available and provide an opportunity for written comment. (42 U.S.C. 6316(a); 42 U.S.C. 6295(m)(2))

A determination that amended standards are not needed must be based on consideration of whether amended standards will result in significant conservation of energy, are technologically feasible, and are cost-effective. (42 U.S.C. 6316(a); 42 U.S.C. 6295(m)(1)(A) and 42 U.S.C. 6295(n)(2)) Under 42 U.S.C. 6295(o)(2)(B)(i)(II), an evaluation of cost-effectiveness requires DOE to consider savings in operating costs throughout the estimated average life of the covered equipment in the type (or class) compared to any increase in the price, initial charges, or maintenance expenses for the covered equipment that are likely to result from the standard. (42 U.S.C. 6316(a); 42 U.S.C. 6295(n)(2) and 42 U.S.C. 6295(o)(2)(B)(i)(II)) DOE is publishing this final determination in satisfaction of the 3-year review requirement in EPCA.

B. Background

1. Current Standards

In a final rule published on March 9, 2010, DOE prescribed the current energy conservation standards for SEMs. 75 FR 10873 (“March 2010 Final Rule”). These standards are set forth in DOE’s regulations at 10 CFR 431.446 and are shown in Table II-1 and Table II-2. These standards are expressed in terms of average full-load efficiency.

Table II-1 Federal Energy Conservation Standards for Polyphase Small Electric Motors Manufactured On or After March 9, 2015

Motor horsepower/standard kilowatt equivalent	Average full-load efficiency		
	Open motors (number of poles)		
	6	4	2
0.25/0.18	67.5	69.5	65.6
0.33/0.25	71.4	73.4	69.5
0.5/0.37	75.3	78.2	73.4
0.75/0.55	81.7	81.1	76.8
1/0.75	82.5	83.5	77.0
1.5/1.1	83.8	86.5	84.0
2/1.5	N/A	86.5	85.5
3/2.2	N/A	86.9	85.5

Note: In the case of a SEM which requires listing or certification by a nationally recognized safety-testing laboratory, the compliance date is March 9, 2017.

Table II-2 Federal Energy Conservation Standards for Capacitor-Start Induction-Run and Capacitor-Start Capacitor-Run Small Electric Motors Manufactured On or After March 9, 2015

Motor horsepower/standard kilowatt equivalent	Average full-load efficiency		
	Open motors (number of poles)		
	6	4	2
0.25/0.18	62.2	68.5	66.6
0.33/0.25	66.6	72.4	70.5
0.5/0.37	76.2	76.2	72.4
0.75/0.55	80.2	81.8	76.2
1/0.75	81.1	82.6	80.4
1.5/1.1	N/A	83.8	81.5
2/1.5	N/A	84.5	82.9
3/2.2	N/A	N/A	84.1

Note: In the case of a SEM which requires listing or certification by a nationally recognized safety-testing laboratory, the compliance date is March 9, 2017.

2. History of Standards Rulemakings for Small Electric Motors

On March 9, 2010, DOE established the current energy conservation standards for small electric motors. 75 FR 10874 (“March 2010 Final Rule”). On January 19, 2021, DOE published a notice of final determination for small electric motors that these standards need not be amended (“January 2021 Final Determination”). 86 FR 4885. In the January 2021 Final Determination, while DOE determined that more stringent standards would be technologically feasible, DOE also determined that more stringent energy conservation standards would not be cost-effective. 86 FR 4885, 4906. Therefore, DOE determined that the current standards for SEMs did not need to be amended. *Id.*

In support of the present review of the SEM energy conservation standards, DOE published a request for information, which identified various issues on which DOE sought comment to inform its determination of whether the standards need to be amended. 87 FR 23471; April 20, 2022 (“April 2022 RFI”). On May 11, 2022, DOE published a notice that extended the comment period for the April 2022 RFI to no later than June 20, 2022. 87 FR 28782. On February 6, 2023, DOE published a notice of

proposed determination (“February 2023 NOPD”) with the tentative determination that energy conservation standards for SEMs do not need to be amended. 88 FR 7629. The comment period for this notice closed on April 7, 2023.

On March 15, 2023, DOE held a public meeting to solicit feedback from stakeholders concerning the February 2023 NOPD.

DOE received three comments from interested parties in response to the February 2023 NOPD. These comments are listed in Table II-3.

Table II-3 February 2023 NOPD Written Comments

Commenter / Organization(s)	Reference in this NOPD	Organization Type
Air-Conditioning, Heating, and Refrigeration Institute and Association of Home Appliance Manufacturers	AHRI and AHAM	Trade Associations
California Investor-Owned Utilities—Pacific Gas and Electric Company, San Diego Gas and Electric, and Southern California Edison	CA IOUs	Utilities
National Electrical Manufacturers Association	NEMA	Trade Association

A parenthetical reference at the end of a comment quotation or paraphrase provides the location of the item in the public record.³ To the extent that interested parties have provided written comments that are substantively consistent with any oral comments provided during the March 15, 2023, public meeting, DOE cites the written comments throughout this final determination. There were no oral comments provided during the public meeting that were not substantively addressed by written comments.

III. Rationale of Analysis and Discussion of Related Comments

DOE developed this final determination after considering oral and written comments, data, and other information submitted by interested parties. This final determination addresses the relevant issues raised in those comments.

³ The parenthetical reference provides a reference for information located in the docket. (Docket No. EERE-2022-BT-STD-0014, which is maintained at www.regulations.gov). The references are arranged as follows: (commenter name, comment docket ID number, page of that document).

This final determination covers SEMs as defined by EPCA and codified by DOE at 10 CFR 431.442. “Small electric motor” is defined as a NEMA general purpose alternating current single-speed induction motor, built in a two-digit frame number series in accordance with NEMA Standards Publication MG1–1987, including IEC metric equivalent motors. 10 CFR 431.442. (*See also* 42 U.S.C. 6311(13)(G)) Therefore, the scope of this determination does not include any non-induction electric motors or any other electric motors that do not meet the SEM definition. As a result, comments regarding or implicating electric motors outside the scope of the SEMs definition, were deemed outside the scope of this final determination.⁴

A. General Comments

In response to the February 2023 NOPD, DOE received several general comments from interested parties regarding support of DOE’s final determination.

The CA IOUs commented that they concurred with DOE’s proposed determination that more stringent energy conservation standards would not be cost-effective and, therefore, that the current standards for SEMs do not need to be amended. (CA IOUs, No. 18 at p. 1)

AHAM and AHRI commented in support of the notice of proposed determination and agreed with DOE’s proposal to maintain the scope of the current energy conservation standards (and test procedure) for SEMs. AHAM and AHRI reiterated their prior comments submitted in response to the April 2022 RFI⁵ emphasizing that efficient small electric motors destined for finished products already play a major part of the energy

⁴ DOE received one comment related to expanded scope electric motors (ESEMs) which were the subject of a separate DOE rulemaking (Docket EERE-2020-BT-STD-0007).

⁵ *See* AHAM and AHRI Comments on DOE’s notice of proposed rulemaking on Test Procedures for Electric Motors, Docket No. EERE-2020-BT-TP-0011 (filed Feb. 28, 2022); Joint Comments on Electric Motor Preliminary Technical Support Document (NEMA, AHAM, AHRI, MITA, OPEI, HVI, PTI), Docket No. EERE-2020-BT-STD-0007-0011, RIN 1904-AE63 (filed May 2, 2022); AHAM and AHRI Comments on DOE’s Energy Conservation Standards for Electric Motors, Availability of the Preliminary Technical Support Document, Docket No. EERE-2020-BT-STD-0007-0011, RIN 1904-AE63 (filed May 2, 2022).

equation when original equipment manufacturers consider what design options to apply to meet new standards. AHAM and AHRI commented that applying separate standards and test procedures to these products adds costs, reduces choice, and does little, if anything, to further energy savings goals. As such, AHAM and AHRI recommended that DOE finalize its proposed determination not to amend standards for SEMs and maintain its decision not to expand the SEM test procedure or coverage to special and definite purpose motors. (AHAM and AHRI, No. 19 at pp. 1–2)

NEMA stated that they agree with the Department of energy’s conclusions and that there have been no significant advancements that would justify updating energy conversation standards. (NEMA, No. 20 at p. 1) In addition, NEMA commented that increasing efficiency levels would have substantial downstream market impacts on utility as motors would need to become significantly larger while several essential operating characteristics (e.g., starting torque) would be compromised, resulting in little (and sometimes negative) energy savings in the end-product. (NEMA, No. 20 at p. 2)

In this final determination, DOE maintains that the current standards for SEMs do not need to be amended.

B. Technological Feasibility

Pursuant to 42 U.S.C. 6316(a), 6295(m)(1)(A), and 6295(n)(2), DOE’s determination regarding amended standards must consider whether such standards are technologically feasible, are cost effective as described in subsection 6295(o)(2)(B)(i)(II) and will result in significant conservation of energy.

In the February 2023 NOPD, DOE evaluated technological feasibility by reviewing the current SEM market, available motor technologies, and the engineering analysis presented in the January 2021 Final Determination. As discussed in that NOPD, DOE tentatively concluded that both the technology options identified and the

incremental cost relationships established in the January 2021 analysis remain applicable (88 FR 7629, 7635-7638).

NEMA reaffirmed its agreement with DOE's conclusion that the results of that engineering analysis continue to be valid. (NEMA, No. 20 at p. 2)

DOE also found no significant advancements in induction motor technology that would enable higher efficiency or lower-cost designs relative to those analyzed in the January 2021 Final Determination. As a result, the standards for Capacitor-Star-Induction-Run ("CSIR") motors already reflect the maximum technologically feasible efficiency and no new viable design options could be identified for this topology. Consistent with the January 2021 Final Determination, DOE was only able to identify technologically feasible options for increasing efficiency for capacitor-start capacitor-run ("CSCR") motors. 88 FR 7629, 7637. In this final determination, DOE maintains that the technology options identified in February 2023 NOPD. (88 FR 7629, 7635-7638)

C. Cost-Effectiveness

A determination that amended standards are not needed must also be based on consideration of whether amended standards would be cost-effective, among other factors. (42 U.S.C. 6316(a); 42 U.S.C. 6295(m)(1)(A) and 42 U.S.C. 6295(n)(2)) In evaluating cost-effectiveness, EPCA requires DOE to consider savings in operating costs throughout the estimated average life of the covered equipment in the type (or class) compared to any increase in the price, initial charges, or maintenance expenses for the covered equipment that are likely to result from the standard. (42 U.S.C. 6316(a); 42 U.S.C. 6295(n)(2) and 42 U.S.C. 6295(o)(2)(B)(i)(II)) To evaluate cost-effectiveness, in the February 2023 NOPD, DOE conducted a review of the inputs to the LCC and PBP analyses (which also included a review of the inputs to the markups and energy use analyses). 88 FR 7629, 7639-7644. In the February 2023 NOPD, DOE tentatively concluded that the inputs for each of these analyses were comparable to the estimates

developed for the January 2021 Final Determination. *Id.* Therefore, in determining cost-effectiveness of amending standards for SEMs, DOE relied on the life-cycle cost (“LCC”) and payback period (“PBP”) analyses conducted for the January 2021 Final Determination that estimate the costs and benefits to users from potential standards.

88 FR 7629, 7645-7646

For this final determination, DOE conducted an updated review of inputs to the markups analysis, energy use analysis, LCC and PBP analyses. Specifically, DOE further assessed the impact of updated energy price and discount rate estimates. For energy prices, DOE performed the same comparison as in the February 2023 NOPD, but with an updated starting year,⁶ and used 2023 EEI Typical Bills and Average Rates reports and *AEO2023* energy price trends.⁷ DOE has determined that, similar to its conclusion in the February 2023 NOPD, the energy prices have not changed significantly from those estimated in the January 2021 Final Determination. To estimate updated average residential, commercial, and industrial discount rates, DOE relied on updated data sources^{8,9} and the same methodology as described⁹ in the February 2023 NOPD (See 88 FR 7629, 7643). In line with the February 2023 NOPD, DOE determined that the more recent (2024) residential, commercial and industrial discount rates have not changed significantly from those in the January 2021 Final Determination and these minor changes would have no significant impact on the LCC results.

In response to the February 2023 NOPD, NEMA commented that it agreed with DOE's conclusion that the revised market shares by distribution channel and revised

⁶ For purposes of its final determination analysis, DOE estimated that any amended standards would apply to small electric motors manufactured 5 years after the date on which the amended standard is published. DOE estimated publication of a final rule in the second half of 2025. Therefore, for purposes of its analysis, DOE used 2031 as the year of compliance.

⁷ U.S. Department of Energy-Energy Information Administration, *Annual Energy Outlook 2023 with Projections to 2050*, available at www.eia.gov/outlooks/aeo/ (last accessed June 20, 2023).

⁸ U.S. Board of Governors of the Federal Reserve System. *Survey of Consumer Finances (SCF)*. 1995, 1998, 2001, 2004, 2007, 2010, 2013, 2016, 2019, and 2022. (Last accessed June 1, 2024.) www.federalreserve.gov/econresdata/scf/scfindex.htm.

⁹ Damodaran, A. *Data Page: Historical Returns on Stocks, Bonds and Bills-United States*. (Last accessed June 1, 2024.) www.stern.nyu.edu/~adamodar/pc/datasets/histretSP.xls.

markups and sales taxes would still result in SEM consumer costs and LCC savings that are comparable to the estimates developed for the January 2021 Final Determination. NEMA also agreed with DOE's conclusion that the average energy use results for small electric motors are the same as the estimates developed for the January 2021 Final Determination and that SEMs are not typically repaired. NEMA further commented that it supported DOE's conclusion that lifetimes have remained the same as estimated in the January 2021 Final Determination (NEMA, No. 20 at p. 2) Additionally, NEMA agreed with DOE's conclusion to rely on the same no-new-standards case efficiency distributions as in the January 2021 Final Determination. (*Id* at p. 3)

In response to the February 2023 NOPD, NEMA commented that increasing efficiency generally increases installation costs (an input to the LCC calculation). For existing end-user product lines, NEMA commented that the enclosure often needs to increase in size and/or components need to be moved to accommodate a larger motor. NEMA stated that for repair of end products, higher-efficiency motors often will not fit in the existing application or will require significant rework. (NEMA, No. 20 at p. 2)

For space-constrained applications, DOE assumed that the higher levels of efficiency would be reached based on technology options that would not significantly increase the physical footprint of the motor and would not increase the installation costs. 88 FR 7629, 7638. Therefore, DOE maintains its conclusion that installation costs are not impacted by increased efficiency levels. In addition, any increase in installation costs would further substantiate the determination that amended standards would not satisfy the cost-effectiveness criterion as required by EPCA because it would increase the total installed costs of higher efficiency SEMs and, therefore, lower any LCC savings.

In response to the February 2023 NOPD, NEMA commented that the electric motor industry had experienced higher-than-average levels of inflation compared to the

overall U.S. economy, which led to smaller discounts and, therefore, higher end prices. (NEMA, No. 20 at p. 3) DOE clarifies that the consumer discount rates applied in the LCC analysis are used to compute the present value of future energy savings accrued by the consumer through purchase of a higher-efficiency model. The consumer discount rates do not relate to the specific conditions of the electric motor manufacturing industry (*i.e.*, it is not a price discount offered by motor manufacturers or sellers, nor is it a reflection of the electric motor manufacturer's present value of future savings). In addition, DOE notes that higher end prices would further substantiate the determination that amended standards would not satisfy the cost-effectiveness criterion as required by EPCA because it would increase the total installed costs of higher efficiency SEMs and, therefore, lower any LCC savings.

DOE did not receive any other comments specific to these inputs and concluded that the inputs to the markups analysis, energy use analysis, LCC and PBP analyses have not changed significantly. Accordingly in this final determination, DOE maintains that energy prices, discounts rates, and other inputs to the markups analysis, energy use analysis, LCC and PBP analyses have not significantly changed as described in the 2023 NOPD.

In assessing cost effectiveness, DOE also reviewed changes in manufacturer selling prices (MSPs) since the January 2021 Final Determination. DOE determined that manufacturer selling prices (MSPs) for SEMs are likely to increase due to higher component costs; however, such increases would apply uniformly across all efficiency levels. As a result, incremental costs between efficiency levels are not expected to change materially. Any increase in MSPs without corresponding efficiency improvements would further support DOE's determination that amended standards would not be cost-effective.

In line with the tentative conclusions of the February 2023 NOPD, DOE has determined that the inputs used in the markups, energy use, LCC and PBP calculations have not changed significantly since the January 2021 Final Determination.

IV. Final Determination

As required by EPCA, this final determination analyzes whether amended standards for SEMs would result in significant conservation of energy, be technologically feasible, and be cost-effective. (42 U.S.C. 6316(a); 42 U.S.C. 6295(m)(1)(A) and 42 U.S.C. 6295(n)(2)) The criteria considered under 42 U.S.C. 6295(m)(1)(A) and the additional analysis are discussed in the following sections. Because an analysis of potential cost-effectiveness and energy savings first requires an evaluation of the relevant technology, DOE first discusses the technological feasibility of amended standards. DOE then addresses the cost-effectiveness and energy savings associated with potential amended standards.

A. Technological Feasibility

EPCA requires DOE to determine whether amended energy conservation standards for SEMs would be technologically feasible. (42 U.S.C. 6316(a); 42 U.S.C. 6295(m)(1)(A) and 42 U.S.C. 6295(n)(2)(B)) DOE identified several technology options capable of improving the efficiency of polyphase and CSCR SEMs. These technology options are currently implemented in commercially available SEMs and are, therefore, technologically feasible.

Consistent with the conclusions presented in the January 2021 Final Determination, DOE did not consider a CSIR motor as a representative unit. 86 FR 4885, 4895. The minimum energy conservation standards established in the March 2010 Final Rule (which are established in 10 CFR 431.446(a)) reflect the maximum technologically feasible efficiency for CSIR motors, and DOE was unable to identify any additional

design options meeting the screening criteria that would indicate a higher efficiency level for CSIR motors is both technologically feasible and commercially viable. *Id.*

B. Cost-Effectiveness

EPCA requires DOE to consider whether energy conservation standards for SEMs would be cost-effective through an evaluation of the savings in operating costs throughout the estimated average life of the covered equipment compared to any increase in the price of, or in the initial charges for, or maintenance expenses of, the covered equipment which are likely to result from the imposition of an amended standard. (42 U.S.C. 6316(a); 42 U.S.C. 6295(m)(1)(A), 42 U.S.C. 6295(n)(2)(C), and 42 U.S.C. 6295(o)(2)(B)(i)(II)) DOE conducted an LCC analysis in the January 2021 Final Determination to estimate the net costs/benefits to users from increased efficiency in the considered equipment. As described previously, DOE has determined that the results of the LCC analysis in the January 2021 Final Determination are still valid. These results show that the average LCC savings from higher energy conservation standards at the considered ELs would be negative for all equipment classes. 86 FR 4885, 4904-4906 Based on the results from the January 2021 Final Determination, which DOE has concluded are still valid, DOE has determined that none of the considered efficiency levels would be cost-effective.

C. Significant Conservation of Energy

EPCA also mandates that DOE consider whether amended energy conservation standards for SEMs would result in significant conservation of energy. (42 U.S.C. 6316(a); 42 U.S.C. 6295(m)(1)(A) and 42 U.S.C. 6295(n)(2)(A)) However, as discussed in the previous section, DOE has determined that amended standards would not satisfy the cost-effectiveness criterion as required by EPCA when determining whether to amend its standards for a given covered product or equipment. (42 U.S.C. 6316(a); 42 U.S.C. 6295(m)(1)(A) and 42 U.S.C. 6295(n)(2)(C)) for the

purpose of 42 U.S.C. 6295(n)(2). Therefore, DOE concludes that quantification of energy savings from potential amended standards is not necessary in the case of this final determination.

D. Conclusion

In this final determination, based on the determination that amended standards would not be cost-effective, DOE has determined that energy conservation standards for SEMs do not need to be amended.

V. Procedural Issues and Regulatory Review

A. Review Under Executive Order 12866

Executive Order (“E.O.”) 12866, “Regulatory Planning and Review,” requires agencies, to the extent permitted by law, to (1) propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify); (2) tailor regulations to impose the least burden on society, consistent with obtaining regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations; (3) select, in choosing among alternative regulatory approaches, those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity); (4) to the extent feasible, specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt; and (5) identify and assess available alternatives to direct regulation, including providing economic incentives to encourage the desired behavior, such as user fees or marketable permits, or providing information upon which choices can be made by the public. The Office of Information and Regulatory Affairs (“OIRA”) in the Office of Management and Budget (“OMB”), in its guidance, has emphasized that agencies use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible, and identify changing future compliance

costs that might result from technological innovation or anticipated behavioral changes. For the reasons stated in this preamble, this final regulatory action is consistent with these principles.

Section 6(a) of E.O. 12866 also requires agencies to submit “significant regulatory actions” to OIRA for review. OIRA has determined that this final regulatory action does not constitute a “significant regulatory action” under section 3(f) of E.O. 12866. Accordingly, this action was not submitted to OIRA for review under E.O. 12866.

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”) and a final regulatory flexibility analysis (“FRFA”) 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).

DOE reviewed this final determination under the provisions of the Regulatory Flexibility Act and the policies and procedures published on February 19, 2003. Because DOE is not amending standards for SEMs, the determination will not amend any energy conservation standards. On the basis of the foregoing, DOE certifies that the final determination will have no significant economic impact on a substantial number of small entities. Accordingly, DOE has not prepared an FRFA for this final determination. DOE has transmitted this certification and supporting statement of factual basis to the Chief

Counsel for Advocacy of the Small Business Administration for review under 5 U.S.C. 605(b).

C. Review Under the Paperwork Reduction Act

This final determination, which concludes that no amended energy conservation standards for SEMs are needed, imposes no new information or recordkeeping 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

In the February 2023 NOPD, DOE analyzed the proposed determination in accordance with the National Environmental Policy Act of 1969 (“NEPA”) and DOE’s NEPA implementing regulations (10 CFR part 1021) in effect at the time of the February 2023 NOPD’s publication. In the February 2023 NOPD, DOE anticipated that the February 2023 NOPD qualified for a categorical exclusion under appendix A4 to subpart D of part 1021 because the NOPD was an interpretation or ruling with respect to an existing regulation and otherwise met the requirements for application of a categorical exclusion. 88 FR 67989, 67995. In July 2025, DOE revised part 1021 to remove appendix A and, concurrently, DOE issued Implementing Procedures.¹⁰ The actions formally identified in appendix A of subpart D to part 1021 now represent administrative and routine actions that are excepted from NEPA based on the definition of “major Federal action” in section 111(10) of NEPA. DOE’s determination that current standards for SEMs do not need to be amended is administrative and routine under category A4 of the Implementing Procedures; therefore, it is not a major Federal action significantly affecting the quality of the human environment within the meaning of NEPA and no further environmental review is needed.

¹⁰ DOE NEPA Implementing Procedures June 30, 2025, <https://www.energy.gov/sites/default/files/2025-06/2025-06-30-DOE-NEPA-Procedures.pdf>.

E. Review Under Executive Order 13132

E.O. 13132, “Federalism,” 64 FR 43255 (Aug. 10, 1999), imposes certain requirements on Federal agencies formulating and implementing policies or regulations that preempt State law or that have federalism implications. The Executive order requires agencies to examine the constitutional and statutory authority supporting any action that would limit the policymaking discretion of the States and to carefully assess the necessity for such actions. The Executive order also requires agencies to have an accountable process to ensure meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications. On March 14, 2000, DOE published a statement of policy describing the intergovernmental consultation process it will follow in the development of such regulations. 65 FR 13735 DOE has examined this final determination and has determined that it would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. EPCA governs and prescribes Federal preemption of State regulations as to energy conservation for the equipment that are the subject of this final rule. States can petition DOE for exemption from such preemption to the extent, and based on criteria set forth in EPCA. (42 U.S.C. 6316(a) and (b); 42 U.S.C. 6297) Therefore, no further action is required by E.O. 13132.

F. Review Under Executive Order 12988

With respect to the review of existing regulations and the promulgation of new regulations, section 3(a) of E.O. 12988, “Civil Justice Reform,” imposes on Federal agencies the general duty to adhere to the following requirements: (1) eliminate drafting errors and ambiguity, (2) write regulations to minimize litigation, (3) provide a clear legal standard for affected conduct rather than a general standard, and (4) promote

simplification and burden reduction. 61 FR 4729 (Feb. 7, 1996). Regarding the review required by section 3(a), section 3(b) of E.O. 12988 specifically requires that Executive agencies make every reasonable effort to ensure that the regulation: (1) clearly specifies the preemptive effect, if any, (2) clearly specifies any effect on existing Federal law or regulation, (3) provides a clear legal standard for affected conduct while promoting simplification and burden reduction, (4) specifies the retroactive effect, if any, (5) adequately defines key terms, and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. Section 3(c) of E.O. 12988 requires Executive agencies to review regulations in light of applicable standards in section 3(a) and section 3(b) to determine whether they are met or it is unreasonable to meet one or more of them. DOE has completed the required review and determined that, to the extent permitted by law, this final determination meets the relevant standards of E.O. 12988.

G. Review Under the Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (“UMRA”) requires each Federal agency to assess the effects of Federal regulatory actions on State, local, and Tribal governments and the private sector. Public Law 104-4, sec. 201 (codified at 2 U.S.C. 1531). For a regulatory action likely to result in a rule that may cause the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector of \$100 million or more in any 1 year (adjusted annually for inflation), section 202 of UMRA requires a Federal agency to publish a written statement that estimates the resulting costs, benefits, and other effects on the national economy. (2 U.S.C. 1532(a), (b)) The UMRA also requires a Federal agency to develop an effective process to permit timely input by elected officers of State, local, and Tribal governments on a proposed “significant intergovernmental mandate,” and requires an agency plan for giving notice and opportunity for timely input to potentially affected small governments before

establishing any requirements that might significantly or uniquely affect them. On March 18, 1997, DOE published a statement of policy on its process for intergovernmental consultation under UMRA. 62 FR 12820. DOE's policy statement is also available at www.energy.gov/sites/prod/files/gcprod/documents/umra_97.pdf.

DOE examined this final determination according to UMRA and its statement of policy and determined that the final determination does not contain a Federal intergovernmental mandate, nor is it expected to require expenditures of \$100 million or more in any 1 year by State, local, and Tribal governments, in the aggregate, or by the private sector. As a result, the analytical requirements of UMRA do not apply.

H. Review Under the Treasury and General Government Appropriations Act, 1999

Section 654 of the Treasury and General Government Appropriations Act, 1999 (Pub. L. 105-277) requires Federal agencies to issue a Family Policymaking Assessment for any rule that may affect family well-being. This final determination would not have any impact on the autonomy or integrity of the family as an institution. Accordingly, DOE has concluded that it is not necessary to prepare a Family Policymaking Assessment.

I. Review Under Executive Order 12630

Pursuant to E.O. 12630, "Governmental Actions and Interference with Constitutionally Protected Property Rights," 53 FR 8859 (Mar. 15, 1988), DOE has determined that this final determination would not result in any takings that might require compensation under the Fifth Amendment to the U.S. Constitution.

J. Review Under the Treasury and General Government Appropriations Act, 2001

Section 515 of the Treasury and General Government Appropriations Act, 2001 (44 U.S.C. 3516 note) provides for Federal agencies to review most disseminations of information to the public under information quality guidelines established by each agency

pursuant to general guidelines issued by OMB. OMB's guidelines were published at 67 FR 8452 (Feb. 22, 2002), and DOE's guidelines were published at 67 FR 62446 (Oct. 7, 2002). Pursuant to OMB Memorandum M-19-15, Improving Implementation of the Information Quality Act (April 24, 2019), DOE published updated guidelines, which are available at

www.energy.gov/sites/prod/files/2019/12/f70/DOE%20Final%20Updated%20IQA%20Guidelines%20Dec%202019.pdf. DOE has reviewed this final determination under the OMB and DOE guidelines and has concluded that it is consistent with applicable policies in those guidelines.

K. Review Under Executive Order 13211

E.O. 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use," 66 FR 28355 (May 22, 2001), requires Federal agencies to prepare and submit to the Office of Information and Regulatory Affairs ("OIRA") at OMB a Statement of Energy Effects for any proposed significant energy action. A "significant energy action" is defined as any action by an agency that promulgates or is expected to lead to promulgation of a final rule, and that (1) is a significant regulatory action under E.O. 12866, or any successor E.O.; and (2) is likely to have a significant adverse effect on the supply, distribution, or use of energy, or (3) is designated by the Administrator of OIRA as a significant energy action. For any significant energy action, the agency must give a detailed statement of any adverse effects on energy supply, distribution, or use should the proposal be implemented, and of reasonable alternatives to the action and their expected benefits on energy supply, distribution, and use.

This final determination, which does not amend energy conservation standards for SEMs, is not a significant regulatory action under E.O. 12866. Moreover, it would not have a significant adverse effect on the supply, distribution, or use of energy, nor has it

been designated as such by the Administrator at OIRA. Accordingly, DOE has not prepared a Statement of Energy Effects.

L. Review Under Additional Executive orders and Presidential Memoranda

DOE has examined this final determination and has determined that it is consistent with the policies and directives outlined in E.O. 14154 “Unleashing American Energy,” E.O. 14192, “Unleashing Prosperity Through Deregulation,” and Presidential Memorandum, “Delivering Emergency Price Relief for American Families and Defeating the Cost-of-Living Crisis.” DOE has determined that more stringent SEMs standards would not be cost-effective, and that standards for SEMs should not be amended. DOE’s final determination effectively preserves consumer choice, and provides manufacturers with regulatory certainty, which may allow for more market innovations as well as a reduction in consumer costs. Accordingly, DOE considers this final determination to be an E.O. 14192 deregulatory action.

M. Review Under the Information Quality Bulletin for Peer Review

On December 16, 2004, OMB, in consultation with the Office of Science and Technology Policy (“OSTP”), issued its Final Information Quality Bulletin for Peer Review (“the Bulletin”). 70 FR 2664 (Jan. 14, 2005). The Bulletin establishes that certain scientific information shall be peer reviewed by qualified specialists before it is disseminated by the Federal Government, including influential scientific information related to agency regulatory actions. The purpose of the Bulletin is to enhance the quality and credibility of the government’s scientific information. Under the Bulletin, the energy conservation standards rulemaking analyses are “influential scientific information,” which the Bulletin defines as “scientific information the agency reasonably can determine will have, or does have, a clear and substantial impact on important public policies or private sector decisions.” *Id.* at 70 FR 2667.

In response to OMB’s Bulletin, DOE conducted formal peer reviews of the energy conservation standards development process and the analyses that are typically used and has prepared a Peer Review report pertaining to the energy conservation standards rulemaking analyses.¹¹ Generation of this report involved a rigorous, formal, and documented evaluation using objective criteria and qualified and independent reviewers to make a judgment as to the technical/scientific/business merit, the actual or anticipated results, and the productivity and management effectiveness of programs and/or projects. Because available data, models, and technological understanding have changed since 2007, DOE has engaged with the National Academy of Sciences to review DOE’s analytical methodologies to ascertain whether modifications are needed to improve DOE’s analyses. DOE is in the process of evaluating the resulting report.¹²

N. Congressional Notification

As required by 5 U.S.C. 801, DOE will report to Congress on the promulgation of this final determination prior to its effective date. The report will state that it has been determined that this final determination is not a “major rule” as defined by 5 U.S.C. 804(2).

VI. Approval of the Office of the Secretary

The Secretary of Energy has approved publication of this notification of final determination.

Signing Authority

This document of the Department of Energy was signed on February 5, 2026, by Audrey Robertson, Assistant Secretary (EERE) for Critical Minerals and Energy Innovation, U.S. Department of Energy, pursuant to delegated authority from the

¹¹ “Energy Conservation Standards Rulemaking Peer Review Report.” 2007. Available at [energy.gov/eere/buildings/downloads/energy-conservation-standards-rulemaking-peer-review-report-0](https://www.energy.gov/eere/buildings/downloads/energy-conservation-standards-rulemaking-peer-review-report-0) (last accessed Nov. 7, 2022).

¹² The December 2021 NAS report is available at www.nationalacademies.org/our-work/review-of-methods-for-setting-building-and-equipment-performance-standards.

Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the *Federal Register*.

Signed in Washington, DC, on February 11, 2026.

Treena V. Garrett
Federal Register Liaison Officer,
U.S. Department of Energy

[FR Doc. 2026-02936 Filed: 2/12/2026 8:45 am; Publication Date: 2/13/2026]