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February 8, 2017

The Honorable Lisa Murkowski
Chairman
The Honorable Maria Cantwell
Ranking Member
Committee on Energy and Natural Resources
United States Senate

The Honorable Greg Walden
Chairman
The Honorable Frank Pallone, Jr.
Ranking Member
Committee on Energy and Commerce
House of Representatives

Subject: *Department of Energy: Energy Conservation Program: Energy Conservation Standards for Ceiling Fans*

Pursuant to section 801(a)(2)(A) of title 5, United States Code, this is our report on a major rule promulgated by the Department of Energy (DOE) entitled “Energy Conservation Program: Energy Conservation Standards for Ceiling Fans” (RIN: 1904-AD28). We received the rule on January 24, 2017. It was published in the *Federal Register* as a final rule on January 19, 2017, with an effective date of March 20, 2017. 82 Fed. Reg. 6826.

The final rule amends the energy conservation standards for ceiling fans. DOE determined that the amended energy conservation standards for ceiling fans would result in significant conservation of energy and are technologically feasible and economically justified. The amended standards are expressed for each product class as the minimum allowable efficiency in terms of cubic feet per minute per watt, as a function of ceiling fan diameter in inches. These standards would apply to ceiling fans manufactured in, or imported into, the United States on and after January 21, 2020.

Enclosed is our assessment of DOE’s compliance with the procedural steps required by section 801(a)(1)(B)(i) through (iv) of title 5 with respect to the rule. Our review of the procedural steps taken indicates that DOE complied with the applicable requirements.

If you have any questions about this report or wish to contact GAO officials responsible for the evaluation work relating to the subject matter of the rule, please contact Shirley A. Jones, Assistant General Counsel, at (202) 512-8156.

signed

Robert J. Cramer
Managing Associate General Counsel

Enclosure

cc: Daniel Cohen
Assistant General Counsel for Legislation,
Regulation and Energy Efficiency
Department of Energy

REPORT UNDER 5 U.S.C. § 801(a)(2)(A) ON A MAJOR RULE
ISSUED BY THE
DEPARTMENT OF ENERGY
ENTITLED
“ENERGY CONSERVATION PROGRAM:
ENERGY CONSERVATION STANDARDS
FOR CEILING FANS”
(RIN: 1904-AD28)

(i) Cost-benefit analysis

The Department of Energy (DOE) analyzed the costs and benefits of this final rule. DOE calculated the cumulative net present value (NPV) of total consumer costs and savings of the standards for ceiling fans ranges from \$4.488 billion (at a 7 percent discount rate) to \$12.123 billion (at a 3 percent discount rate). This NPV expresses the estimated total value of future operating-cost savings minus the estimated increased product costs for ceiling fans purchased in 2020-2049. In addition, DOE projects that the standards for ceiling fans will yield significant environmental benefits. DOE estimates that the standards would result in cumulative greenhouse gas emission reductions (over the same period as for energy savings) of 120.2 million metric tons (Mt) of carbon dioxide (CO₂), 64.0 thousand tons of sulfur dioxide (SO₂), 222.6 thousand tons of nitrogen oxides (NO_x), 530.1 thousand tons of methane (CH₄), 1.3 thousand tons of nitrous oxide (N₂O), and 0.2 tons of mercury (Hg).

Using discount rates for each set of social cost of carbon (SCC) values, DOE estimates that the net present monetary value of the CO₂ emissions reduction (not including CO₂ equivalent emissions of other gases with global warming potential) is between \$0.8 billion and \$11.7 billion, with a value of \$3.8 billion using the SCC central value case represented by \$40.6/metric ton (t) in 2015. DOE also estimates that the present monetary value of the NO_x emissions reduction to be \$0.2 billion at a 7 percent discount rate and \$0.4 billion at a 3 percent discount rate. DOE is investigating appropriate valuation of the reduction in other emissions and did not include any values for other emissions in this rulemaking.

DOE also expressed the benefits and costs of the adopted standards, for ceiling fans sold in 2020-2049, in terms of annualized values. Using a 7 percent discount rate for benefits and costs other than CO₂ reduction (for which DOE used a 3 percent discount rate along with the SCC series that has a value of \$40.6/t in 2015), DOE's estimated annualized cost of the standards in this rule is \$245.1 million per year in increased equipment costs, while DOE's estimated annualized benefits are \$688.1 million in reduced equipment operating costs, \$214.1 million in CO₂ reductions, and \$15.1 million in reduced NO_x emissions. In this case, DOE's annualized net benefit amounts to \$672.2 million per year. Using a 3 percent discount rate for all benefits and costs and the SCC series has a value of \$40.6/t in 2015, DOE's estimated cost of the standards is \$243.2 million per year in increased equipment costs, while DOE's estimated annualized benefits are \$919.0 million in reduced operating costs, \$214.1 million in CO₂ reductions, and \$21.5 million in reduced NO_x emissions. In this case, DOE's annualized net benefit amounts to \$911.4 million per year.

(ii) Agency actions relevant to the Regulatory Flexibility Act (RFA), 5 U.S.C. §§ 603-605, 607, and 609

DOE prepared a Final Regulatory Flexibility Analysis for this direct final rule which included a description of (1) the need for, and objectives of, the rule; (2) significant comments in response

to the Initial Regulatory Flexibility Analysis; (3) comments filed by the Small Business Administration's Chief Counsel for Advocacy; (4) small entities affected, including an estimate of the number; (5) compliance requirements; and (6) significant alternatives considered and steps taken to minimize significant economic impacts on small entities.

(iii) Agency actions relevant to sections 202-205 of the Unfunded Mandates Reform Act of 1995, 2 U.S.C. §§ 1532-1535

This final rule establishes energy conservation standards for ceiling fans that are designed to achieve the maximum improvement in energy efficiency that DOE has determined to be both technologically feasible and economically justified. The rule also included a discussion of the alternatives considered by DOE.

(iv) Other relevant information or requirements under acts and executive orders

Administrative Procedure Act, 5 U.S.C. §§ 551 et seq.

On January 13, 2016, DOE published a proposed rule for the ceiling fans energy conservation. 81 Fed. Reg. 1688. DOE also held a public meeting on February 3, 2016, at which it sought comments from interested parties. DOE responded to comments in the final rule.

Paperwork Reduction Act (PRA), 44 U.S.C. §§ 3501-3520

Manufacturers of ceiling fans must certify to DOE that their products comply with any applicable energy conservation standards. In certifying compliance, manufacturers must test their products according to DOE test procedures for ceiling fans, including any amendments adopted for those test procedures. The collection-of-information requirement for the certification and recordkeeping is subject to review and approval by the Office of Management and Budget (OMB) under the Act. This requirement has been approved by OMB under OMB control number 1910-1400. DOE estimates that public reporting burden for the certification averages 30 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Statutory authorization for the rule

DOE promulgated this direct final rule under the authority of sections 6291 to 6317 of title 42 and section 2461 note of title 28, United States Code.

Executive Order No. 12,866 (Regulatory Planning and Review)

OMB determined that the regulatory action is an economically significant regulatory action under the Order. The rule was submitted to OMB for review.

Executive Order No. 13,132 (Federalism)

DOE 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.