



Institute for Policy Integrity

new york university school of law

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Kathleen B. Hogan, Deputy Assistant Secretary for Energy Efficiency,
Department of Energy

Subject: Docket EE-2010-BT-STD-0043, Notice of Proposed Determination for Energy
Conservation Standards for High-Intensity Discharge Lamps

The Institute for Policy Integrity at New York University School of Law¹ respectfully submits these comments on the appropriate consideration of environmental and health effects in assessing the economic justification of energy efficiency standards. Policy Integrity is a non-partisan think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy.

The Department of Energy has determined that energy conservation standards for mercury vapor and metal halide high-intensity discharge lamps are not “economically justified” as required by statute, even though such standards could save up to 1.6 quadrillion British thermal units of energy.² By reducing electricity demand and pollution from fossil fuel-fired power plants, such energy savings would generate environmental and health benefits. However, at no point in the proposed determination³ or the technical support document⁴ does the agency discuss environmental and health benefits as part of its statutory analysis of “economic justification” and “national impact.” The failure to consider these benefits is inconsistent with the agency’s practice in prior energy efficiency rulemakings. In its final determination on high-intensity lamps, the agency should follow its past practice of defining “economic justification” and “national impact” to include environmental and health considerations. Given that the agency has a readily available methodology for quantifying and monetizing some of the key environmental and health benefits generated by energy savings, which it has used in similar proceedings, the final determination should also include such quantified benefits, even if these benefits would not change the agency’s ultimate conclusion that standards for high-intensity lamps are not cost-benefit justified.

The Energy Policy and Conservation Act requires the Department of Energy to determine whether energy conservation standards would be “economically justified” for high-intensity discharge lamps;⁵ the same “economically justified” criterion also applies to standards for other consumer products,⁶ certain industrial equipment,⁷ and federal buildings.⁸ The Act generally instructs the agency to determine whether a standard is economically justified by assessing whether benefits exceed costs, after considering: (1) the economic effect on manufacturers and consumers; (2) the

¹ No part of this document purports to present New York University School of Law’s views, if any.

² Notice of Proposed Determination, Energy Conservation Program: Energy Conservation Standards for High-Intensity Discharge Lamps, 79 Fed. Reg. 62,910, 62,924 (Oct. 21, 2014).

³ *Id.*

⁴ Dept. of Energy, EERE-2010-BT-STD-0043-0030 (Oct. 2014).

⁵ 42 U.S.C. § 6317.

⁶ 42 U.S.C. § 6295.

⁷ 42 U.S.C. § 6313.

⁸ 42 U.S.C. § 6834.

operating savings versus upfront costs; (3) the total energy savings; (4) effects on the utility or performance of the product; (5) competition effects; (6) the need for national energy conservation; and (7) any other factors the agency finds relevant.⁹

In this proposed determination that energy conservation standards for mercury vapor and metal halide high-intensity lamps are not economically justified, the agency conducted: a market and technology assessment; an engineering analysis; a life-cycle cost and payback period analysis; a manufacturer impact analysis; and a “national impact analysis” that “estimates potential energy savings on a national scale and potential economic costs and benefits that would result from improving energy efficiency.”¹⁰ After considering the net present value of customer benefits (negative at most efficacy levels and discount rates), the percent of customers who would experience net costs, and the potential decrease in industry value, the agency determined that the proposed standards were not economically justified.¹¹ However, at no point in this analysis did the agency consider environmental or health benefits.

In many other recent energy efficiency rulemakings, by contrast, the agency has appropriately included environmental and health benefits in its statutorily required analysis of economic justification, typically as part of the “need for national energy conservation” factor. For example, in its final rule on residential furnace fan efficiency, the agency defined the “need for national energy conservation” by explaining that:

Energy savings from energy conservation standards are also likely to result in environmental benefits in the form of reduced emissions of air pollutants and greenhouse gases associated with energy production (*i.e.*, from power plants). . . . DOE reports the expected environmental effects from today's standards, as well as from each TSL it considered DOE also reports estimates of the economic value of emissions reductions resulting from the considered TSLs¹²

The agency went on to explain, “DOE routinely conducts a full economic analysis that considers the full range of impacts, including those to the consumer, manufacturer, Nation, *and environment*, as required under [the Energy Policy and Conservation Act].”¹³ Similar language is found in a number of recent energy efficiency rulemakings.¹⁴ In fact, the agency has issued a general Statement of Policy adopting a full-fuel-cycle approach to measuring energy use and greenhouse gas emissions for purposes of conducting its “national impact analyses” in energy efficiency determinations.¹⁵

Consistent with these precedents and with general agency policy, in its final determination on energy conservation standards for high-intensity discharge lamps, the Department of Energy should continue to define “economically justified” and “national impact” to include environmental and health considerations. The agency also has a readily available methodology for translating national energy savings into quantified emissions reductions, based on average emissions factors, and for monetizing some key environmental and health benefits. For example, the technical support document for the commercial refrigeration equipment rule suggests that a savings of 1.6

⁹ 42 U.S.C. § 6295(o)(2)(B); *accord.* 42 U.S.C. 6313(a)(6)(B)(2).

¹⁰ 79 Fed. Reg. at 62,914.

¹¹ *Id.* at 62,925.

¹² 79 Fed. Reg. 38,130, 38,144 (July 3, 2014).

¹³ 79 Fed. Reg. at 38,168 (emphasis added).

¹⁴ *E.g.*, Notice of Proposed Rulemaking on Energy Conservation Standards for Packaged Terminal Air Conditioners and Packaged Terminal Heat Pumps, 79 Fed. Reg. 55,538 (Sept. 16, 2014); Final Rule on Energy Conservation Standards for Walk-In Coolers and Freezers, 79 Fed. Reg. 32,050 (June 3, 2014); Final Rule on Energy Conservation Standards for Commercial Refrigeration Equipment, 79 Fed. Reg. 17,726 (Mar. 28, 2014).

¹⁵ Statement of Policy for Adopting Full-Fuel Cycle Analyses into Energy Conservation Standards Program for Consumer Products and Certain Commercial and Industrial Equipment, 76 Fed. Reg. 51,281 (Aug. 18, 2011).

quadrillion BTUs could generate monetized environmental and health benefits of over \$2.5 billion, along with significant qualitative benefits from reducing thousands of tons of other pollutants.¹⁶ Even if the agency ultimately determines that these particular standards for high-intensity discharge lamps are not economically justified, it should continue to interpret the statutorily required analysis to include appropriate consideration of environmental and health benefits.

Sincerely,

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¹⁶ See Dept. of Energy, EERE-2010-BT-STD-0003-0102, tbls. 10.4.3, 13.5.1, 16.4.1 & 16.4.3 (Feb. 2014) (the first and second trial standard levels were estimated to generate savings of 1.195 quads and 2.074 quads, respectively; the average of those two figures is 1.6 quads; the average of the monetized greenhouse gas reductions (at the central social cost of carbon estimate) and the NO_x reductions (at a 7% discount rate) for those two TSLs is just over \$2.5 billion in total; though the emissions reductions pathways over time for those TSLs may not be the same as for the potential high-intensity lamp standards, these calculations give a rough sense of the magnitude of monetized environmental benefits at stake).