Case No. 07-74819

(Consolidated with Case Nos. 07-74836 and 08-70807)

IN THE UNITED STATES COURT OF APPEALS

FOR THE NINTH CIRCUIT

PEOPLE OF THE STATE OF CALIFORNIA, ex rel. EDMUND G. BROWN JR., ATTORNEY GENERAL, et al.;
Petitioners,
v.
U.S. DEPARTMENT OF ENERGY, SAMUEL B. BODMAN, Secretary U.S. Department of Energy, et al.
Respondents.

On Petition for Review of Final Action of U.S. Department of Energy

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OPENING BRIEF OF THE GOVERNMENT PETITIONERS STATES OF CALIFORNIA, NEW YORK, CONNECTICUT, NEW JERSEY, AND CITY OF NEW YORK

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PRELIMINARY STATEMENT

Energy efficiency is a critical tool in the fight against climate change, reducing unnecessary greenhouse gas emissions by reducing wasted energy. In the U.S., the Department of Energy ("DOE" or "Department") is responsible for setting efficiency standards for appliances and equipment, which, collectively, use substantial energy and result in substantial emissions.

In this case, DOE adopted minimally stringent standards for electricity distribution transformers, rejecting standards that would substantially increase efficiency and substantially reduce greenhouse gas emissions. In so doing, DOE, in violation of the National Environmental Policy Act, 42 U.S.C. Sections 4321-4370f (2008) ("NEPA"), failed to take a hard look at the climate change impacts of its decision, reporting only the bare tons of carbon dioxide ("CO_2") that would be associated with each standard without explaining how these emissions may contribute to one of the most serious environmental impacts facing the U.S. today. Moreover, in determining the standards' economic justification as required by the Energy Policy and Conservation Act, 42 U.S.C. Sections 6201-6422 (2008) ("EPCA"), DOE flatly refused to consider the climate-related economic benefits of more stringent standards. The Department effectively placed this value at zero, thus putting a thumb on the scale in favor of less stringent standards. The decision that resulted from

this flawed process is arbitrary and capricious.

JURISDICTIONAL STATEMENT

This Court has jurisdiction, pursuant to Rule 15 of the Federal Rules of Appellate Procedure and 42 U.S.C. Sections 6306(b)(1) and 6316(a), to review DOE's final rule entitled "Energy Conservation Program for Commercial Equipment: Distribution Transformers Energy Conservation Standards; Final Rule" at 72 Federal Register 58190-58241 (October 12, 2007) ("Final Rule"). (Excerpts of Record ("ER") 3.) The States of California, Connecticut, New Jersey, and New York, and the City of New York ("Petitioners") are persons "adversely affected" by DOE's Final Rule. *See* 42 U.S.C. § 6306(b)(1). California's Petition for Review was filed on December 11, 2007, within the 60-day statutory period established under 42 U.S.C. Section 6306(b)(1).

Petitioners satisfy Article III standing requirements based on "the primary role of the States in controlling air pollution." *Union Elec. Co. v. Envtl. Prot. Agency*, 427 U.S. 246, 267 n.16 (1976). Petitioners also have standing based on their interest in reducing the environmental impacts of inefficient energy consumption. *See Massachusetts v. Envtl. Prot. Agency*, 127 S. Ct. 1438, 1455 (2007) (holding that states had standing to challenge Environmental Protection Agency's denial of their rulemaking petition based on harms associated with climate change).

ISSUES PRESENTED FOR REVIEW

1. Did DOE take a hard look at the climate change-related impacts of its decision to adopt less stringent standards as required by NEPA? Specifically:

a. Where distribution transformers, through their energy use, contribute millions of tons of greenhouse gases annually, and where climate change resulting from greenhouse gas emissions is one of the most significant environmental problems facing the nation, is there a substantial question that DOE's issuance of efficiency standards for this equipment may have a significant effect on the environment, and, therefore, requires an environmental impact statement ("EIS")?

b. Where DOE in its environmental document entirely failed to consider the distribution transformer standards in conjunction with other relevant past, present, and future projects that have emitted, are emitting, and will emit greenhouse gases, was DOE's conclusion that the standards would have no significant cumulative global warming impacts arbitrary and capricious?

c. Was it arbitrary and capricious and misleading to the public and decisionmakers for DOE to discount not only the value of money, but also the physical emissions of greenhouse gases, where, as commentators noted, there is no evidence that those emissions will be less harmful in the future than they are

today, and where DOE failed to provide any substantive support for its decision to discount?

2. Where EPCA requires DOE to adopt the maximum technologically feasible standards that are economically justified, was it arbitrary and capricious, in violation of EPCA and the Administrative Procedure Act, 5 U.S.C. Sections 701-706 (2008) ("APA"), for DOE to fail to calculate – either quantitatively or qualitatively – the economic benefit of avoided CO_2 emissions that would result from more stringent standards?

STATEMENT OF THE CASE

On October 12, 2007, DOE issued the Final Rule, adopting energy efficiency standards for electricity distribution transformers. On December 11, 2007, the State of California filed a Petition for Review challenging that determination. On the same day, Natural Resources Defense Council ("NRDC") filed a parallel petition in the Second Circuit (No. 08-70807). California and NRDC's petitions followed the Sierra Club's December 10, 2007, filing of a petition in this Court (No. 07-74836). The Court consolidated the three petitions on March 6, 2008. On January 16, 2008, the Court granted motions to intervene on the side of Petitioners filed by the States of Connecticut, New Jersey and New York, and the City of New York. On February 12, 2008, the Court granted the National Electrical Manufacturers

Association's motion to intervene on the side of Respondents.

FACTUAL AND PROCEDURAL BACKGROUND

I. Energy Efficiency Regulation under the Energy Policy and Conservation Act

Congress enacted EPCA in 1975 "as a direct, comprehensive response to the energy crisis precipitated by the [oil] embargo[.]" *NRDC v. Abraham*, 355 F.3d 179, 185 (2d Cir. 2004) ("*Abraham*"). EPCA's purpose was, among other things, "to provide for improved energy efficiency of . . . major appliances, and certain other consumer products." 42 U.S.C. § 6201(4), (5). Congress found that making these products more energy efficient would "result in major reductions in net energy consumption . . . ." H. Rep. No. 94-340, at 94 (1975), *reprinted in* 1975 U.S.C.C.A.N. 1762, 1856.

EPCA originally relied on appliance manufacturers to abide by voluntary efficiency targets. *Abraham*, 355 F.3d at 185. Congress amended EPCA in 1978, replacing the voluntary target program with mandatory minimum standards. *NRDC v. Herrington*, 768 F.2d 1355, 1367 (D.C. Cir. 1985) ("*Herrington*"). The 1978 amendment directed DOE to prioritize rulemaking for nine appliances, though Congress gave the Department discretion to determine, based on specified statutory criteria, that no standard was warranted for a particular appliance. *Herrington*, 768 F.2d at 1367; *see also Abraham*, 355 F.3d at 186. On August 30, 1983, after a prolonged proceeding, DOE

determined that "no standards should be established for any of the nine products." *Abraham*, 355 F.3d at 186. Several states and energy efficiency advocates challenged these "no-standard" standards, and DOE's determination was set aside by the D.C. Circuit. *Herrington*, 768 F.2d at 1433.

In light of the harm stemming from DOE's delays, many of the parties in *Herrington* decided to seek standards directly from Congress. *Abraham*, 355 F.3d at 186. In 1987, Congress effectively adopted an agreement entered by the *Herrington* parties by enacting the National Appliance Energy Conservation Act, Public Law 100-12 (1987), which amended EPCA. The principal goals of the amendments were "to reduce the Nation's consumption of energy and to reduce the regulatory and economic burdens on the appliance manufacturing industry through the establishment of national energy conservation standards for major residential appliances." S. Rep. No. 100-6, at 2 (1987), *reprinted in* 1987 U.S.C.C.A.N. 52, 52. The Energy Policy Act of 1992 further amended EPCA to add certain commercial equipment, including distribution transformers. Pub. L. 102-486 (1992).

Under EPCA, a new or amended efficiency standard "shall be designed to achieve the maximum improvement in energy efficiency . . . which the Secretary determines is technologically feasible and economically justified." 42 U.S.C. § 6295(o)(2)(A). In determining whether a standard is economically

justified, the statute states,

> [T]he Secretary shall, . . . determine whether the benefits of the standard exceed its burdens by, to the greatest extent practicable, considering –
>
> (I) the economic impact of the standard on the manufacturers and on the consumers of the products subject to such standard;
>
> (II) the savings in operating costs throughout the estimated average life of the covered product in the type (or class) compared to any increase in the price of, or in the initial charges for, or maintenance expenses of, the covered products which are likely to result from the imposition of the standard;
>
> (III) the total projected amount of energy, or as applicable, water, savings likely to result directly from the imposition of the standard;
>
> (IV) any lessening of the utility or the performance of the covered products likely to result from the imposition of the standard;
>
> (V) the impact of any lessening of competition, as determined in writing by the Attorney General, that is likely to result from the imposition of the standard;
>
> (VI) the need for national energy and water conservation; and
>
> (VII) other factors the Secretary considers relevant.

42 U.S.C. § 6295(o)(2)(B)(i).

II. National Environmental Policy Act and Requirements for an Environmental Impact Statement

NEPA requires federal agencies undertaking "major Federal actions significantly affecting the quality of the human environment" to prepare a detailed statement examining the projects' environmental impacts. 42 U.S.C. § 4332(C)(i). "NEPA 'ensures that the agency . . . will have available, and will carefully consider, detailed information concerning significant environmental impacts; it also guarantees that the relevant information will be made available to the larger [public] audience.'" *Idaho Sporting Cong. v. Thomas*, 137 F.3d

1146, 1149 (9th Cir. 1998) (quoting *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989)). An EIS "shall provide full and fair discussion of significant environmental impacts and shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1. "By focusing agency and public attention on the environmental effects of proposed agency action, 'NEPA ensures that the agency will not act on incomplete information, only to regret its decision after it is too late to correct.'" *Klamath Siskiyou Wildlands Ctr. v. Boody,* 468 F.3d 549, 560 (9th Cir. 2006) (quoting *Marsh v. Or. Natural Res. Council,* 490 U.S. 360, 371 (1989)).

As a first step in its NEPA analysis, an agency may prepare an environmental assessment ("EA") to determine whether a proposed project may have a significant impact on the environment and, therefore, require preparation of an EIS. 40 C.F.R. § 1508.9(a)(1). "If there is a substantial question whether an action 'may have a significant effect' on the environment, then the agency must prepare an Environmental Impact Statement (EIS)." *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 508 F.3d 508, 517-518 (9th Cir. 2007) ("*Ctr. for Biological Diversity*").

III. Distribution Transformer Efficiency Standards at Issue in This Case

A. Initial Stages of Rulemaking for Distribution Transformer Standards

In October, 1997, the Secretary of Energy issued a determination that "based on its analysis of the information now available, the Department has determined that energy conservation standards for transformers appear to be technologically feasible and economically justified, and are likely to result in significant savings." 62 Fed. Reg. 54809 (October 22, 1997). DOE already was behind schedule. By law, DOE was required to adopt a final rule establishing energy conservation standards for distribution transformers within 18 months after DOE prescribed testing standards; testing standards were due 30 months after October 24, 1992. 42 U.S.C. § 6317 (a)(1), (2). Thus, DOE should have been issuing a final rule in October, 1997, rather than merely announcing that a rule appeared warranted.

In the summer of 2004, DOE initiated the rulemaking for distribution transformer efficiency standards by publishing an Advanced Notice of Proposed Rulemaking ("Advanced Notice"). 69 Fed. Reg. 45376 (July 29, 2004) (ER 243.) In the Advanced Notice, DOE identified 13 groups of similarly built distribution transformers and identified one representative unit from each group. 69 Fed. Reg. at 45377 (ER 244.) Each proposed efficiency standard would be tested on these representative units. 69 Fed. Reg. at 45397

(ER 264.)[1/]

In April of 2006, DOE published its Final Rule on Test Procedures for Distribution Transformers. 71 Fed. Reg. 24972 (April 27, 2006). The testing standards were eleven years overdue.

B. Proposed Rule for Distribution Transformer Efficiency Standards

DOE published the Notice of Proposed Rulemaking for distribution transformer efficiency standards on August 4, 2006 ("NOPR"). 71 Fed. Reg. 44356 (Aug. 4, 2006) (ER 189.) In the NOPR, DOE examined six trial standard levels ("TSLs 1-6") as applied to each representative distribution transformer. 71 Fed. Reg. at 44361, 44397 (ER 194, 230.) DOE explained the process by which it developed the efficiency standards as follows:

> [DOE] started by comparing the maximum technologically feasible level with the base case, and determined whether that level was economically justified. Upon finding the maximum technologically feasible level not to be justified, the Department analyzed the next lower TSL to determine whether that level was economically justified. The Department repeated this procedure until it identified a TSL that was economically justified.

71 Fed. Reg. at 44397 (ER 230.) Through this process, DOE rejected the more

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1. The Advanced Notice included analyses of standards for three types of transformers: liquid-immersed; medium-voltage, dry-type; and low-voltage, dry-type distribution transformers. 69 Fed. Reg. at 45376 (ER 243.) Because Congress established efficiency standards for low-voltage, dry-type transformers in the Energy Policy Act of 2005, DOE limited the rulemaking to liquid-immersed and medium-voltage, dry-type transformers. 71 Fed. Reg. at 44357 (ER 190.)

stringent standards, TSL 6 through TSL 3, as not economically justified and determined that TSL 2 was the most stringent standard that was both technologically feasible and economically justified for both liquid-immersed and medium-voltage, dry-type transformers.[2/] 71 Fed. Reg. at 44357 (ER 190.)

In deciding that TSL 2 was the most stringent standard that was economically justified, DOE purported to evaluate the seven factors set forth in EPCA. 71 Fed. Reg. at 44363 (ER 196.) Considering the "need for nation to conserve energy," DOE found that TSL 2 "will lead to reductions in greenhouse gases, resulting in cumulative (undiscounted) emission reductions of 167.1 million tons (Mt) of carbon dioxide (CO_2)." 71 Fed. Reg. at 44358, 44364 (ER 191, 197.) The Department determined that the more stringent standard levels, TSL 3,4, 5 and 6, were not economically justified, even though they would have resulted in substantially greater cumulative CO_2 emissions reductions. 71 Fed. Reg. at 44395, Table V.19 (ER 228.) To take one

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2. Distribution transformers are classified by their capacity, which is measured by kilovolt-ampere (kVA). A transformer's kVA rating represents its output power when it is fully loaded. 72 Fed. Reg. at 58191 n.1 (ER 5.) The representative units used to evaluate the TSLs in the rulemaking ranged from kVA ratings of 50 to 2000. 71 Fed. Reg. at 44367 (ER 200.) Based on its findings from applying each TSL to those units, the Department scaled to other kVA ratings to establish minimum efficiency standards for distribution transformers as a whole. 71 Fed. Reg. at 44367 (ER 200.) Thus, the NOPR contained standards that apply to transformers with kVA ratings as low as 10 and as high as 2500. 71 Fed. Reg. at 44358, Table II.1 (ER 191.)

example, the NOPR stated that for liquid-immersed transformers, TSL 5 would result in a cumulative CO_2 emissions reduction of 451 Mt. 71 Fed. Reg. at 44395, Table V.19 (ER 228.) DOE did not attempt to calculate the economic value of these avoided CO_2 emissions in making its determination of economic justification.

In response to DOE's proposal, a wide array of government entities, industry groups and nonprofit organizations urged DOE to adopt a more stringent standard than TSL 2. California Energy Commission ("CEC") Comment No. 98 (ER 168); Edison Electric Institute, *et al.* Comment No. 158 (ER 96); American Council for and Energy Efficient Economy ("ACEEE") Comment No. 127 (ER 99); NRDC Comment No. 117 (ER 129.)

A number of commentators noted that DOE's analysis was lacking, because it failed to take into account important benefits of more efficient transformers. *See e.g.*, CEC Comment No. 98 at 2 (ER 169) (noting DOE did not consider the longer operating lifetime of more energy-efficient transformers); Marckus Zahn Comment No. 119 (ER 118) (noting lower temperature rise and longer lifetimes for more efficient transformers). Among the values left out of DOE's calculations were the economic benefits of reduced CO_2 emissions. At the public meeting on the NOPR, Andrew deLaski with the Appliance Standards Awareness Project ("ASAP") addressed DOE's

failure to monetize CO_2 reductions. He stated:

> [T]he Department does calculate emissions impacts but there is no value attached to them by the Department. . . . There are various estimates out there for the value of a ton of carbon, and they are somewhat – there is some variation there. But there is real value here in these emission reductions that is not being captured in the analysis . . . .

Transcript of Public Meeting on Proposed Energy Conservation Standards for Distribution Transformers at 239:20-240:10 (Sept. 27, 2006) Comment No. 108.6 (ER 162-163.) Additionally, Steve Nadel with the ACEEE raised the issue in his comments at the public meeting on the NOPR, noting that the electricity sales data forecast "does not factor at all any potential cost due to addressing carbon dioxide emissions." Transcript of Public Meeting on Proposed Energy Conservation Standards for Distribution Transformers at 42:21-24 (Sept. 27, 2006) Comment No. 108.6 (ER 148.)

Another concern raised by commentators was DOE's decision to apply discount rates of 3% and 7% to CO_2 emissions for each TSL over the 29-year lifetime of the equipment. 71 Fed. Reg. at 44395, Table V.20 (ER 228.) DOE did not explain the basis for discounting of actual, physical pollution, except to note that the rates were taken from a U.S. Office of Budget and Management ("OMB") guidance document, Circular A-4: Regulatory Analysis (Sept. 17 2003), which aids agencies in preparing cost benefit analyses. 71 Fed. Reg. at 44393, 44395 (ER 226, 228.) The NOPR stated only that, "The seven-percent

and three-percent real discount rate values are meant to capture the present value of costs and benefits associated with projects facing an average degree of risk." 71 Fed. Reg. at 44395 (ER 228.)

In response to the NOPR a number of commentators questioned the appropriateness of discounting physical emissions. For example, in her letter of September 12, 2006, Jackalyne Pfannenstiel, Chairman of the CEC, stated:

> [I]n reporting emissions reductions, DOE includes values it calls discounted emission reductions. This is conceptually erroneous. Quads of energy and tons of air pollutants are physical entities; they do not change over time. Nor is there any reason to believe that energy savings or emissions reductions have a "time value" in the way money does. DOE should either remove those discounted values from the analysis, or provide detailed and referenced justifications for applying financial discounting techniques to physical attributes of energy and emissions, and explain and justify the discount rates they assign to those physical attributes.

Comment 98 at 4 (ER 171.)

Similarly, the Director of the Energy Program at NRDC, David B. Goldstein, Ph.D., commented, "It is hard to find any logical basis for the concept that pollution can be discounted." NRDC Comment No. 99 at 10 (Sept. 12, 2006) (ER 181); *see also* NRDC Comment No. 117 at 10 (Oct. 12, 2006) (ER 138.) Dr. Goldstein also questioned the economic basis of the discount,

> The economic value of damage from pollution increases at least in proportion to economic growth and population growth. For health related pollution, if anything, future pollution costs even more than

> today's pollution even after discounting the economic effects. For climate pollution, virtually all analyses of how to prevent disastrous climate change require greater and greater cuts in emissions the farther into the future we go. It is therefore reasonable to calculate that the economic value of reducing CO_2 emissions in the far future is much higher than it is today. Again, reverse discounting would seem to make more sense than conventional discounting.

Id.

Comments submitted by Alecia Ward with the Midwest Energy Efficiency Alliance also noted that common sense indicates that discounting emissions was unsupported. She noted, "A penny saved today may earn more than a penny saved tomorrow, but a ton saved remains a ton saved and a quad of electricity remains a quad of electricity, and these numbers should not be discounted as if they were the same as capital." MEEA Comment No. 126 at 3 (Oct. 17, 2006) (ER 114.)

During the public meeting on the NOPR, the CEC and NRDC again raised concerns about DOE's decision to include discounted emissions calculations in its analysis. John Stoops, spokesperson for the CEC commented: "[T]he California Energy Commission questions the basic validity and meaning of those calculations. If DOE intends to include these values in the documentation of the final rule, it really must provide the fundamental rationale, purpose, and technical justification for the application of a financial analysis technique to physical values." Transcript of Public Meeting on

Proposed Energy Conservation Standards for Distribution Transformers at 61:13-25 (Sept. 27, 2006) Comment No. 108.6 (ER 153.)

And Dr. Goldstein with NRDC stated bluntly:

> Emissions mean deaths. . . . Thirty thousand people a year die from air pollution-related mortality in this country. If you discount emissions, you are saying your grandchild's death is worth less than your own, and that is an ethical lapse that defies the imagination. You can't discount health. You can't discount mortality. You can't discount emissions.

Id. at 113:17-25 (ER 159.)

C. Final Rule Adopting Efficiency Standards for Distribution Transformers

On October 12, 2007, DOE published its Final Rule for Distribution Transformers Energy Conservation Standards. 72 Fed. Reg. at 58190 (ER 4.) As in the NOPR, the Department stated that the determination of economic justification for the Final Rule was based on the seven-factor analysis listed in EPCA. 72 Fed. Reg. at 58196-58198 (ER 10-12). DOE reaffirmed its choice of TSL 2 for medium-voltage, dry-type transformers and chose TSL C, a slightly more efficient standard than that proposed in the NOPR, for liquid-immersed transformers. 72 Fed. Reg. at 58191-58192 (ER 5-6.)

In evaluating the need for national energy conservation, the Department estimated the total value of future energy savings minus the estimated increased equipment costs attributed to the standards. 72 Fed. Reg. at 58193 (ER 7.) DOE asserted that the chosen standards would save approximately

2.74 quads of energy over 29 years, which the Department equated to all the energy consumed by 27 million American households in a single year. 72 Fed. Reg. at 58192 (ER 6.) The net present value was calculated to be $1.39 billion at a 7% discount rate and $7.8 billion at a 3% discount rate, cumulative from 2010 to 2073. 72 Fed. Reg. at 58193 (ER 7.) The value of CO_2 reductions was omitted from this equation, because DOE did not monetize this benefit. DOE found the total energy savings would result in cumulative greenhouse gas emission reductions of approximately 238 Mt of CO_2 from 2010-2038, which the Department stated is equivalent to the emissions saved from removing 80% of all light vehicles from U.S. roads for one year. 72 Fed. Reg. at 58192-58193 (ER 6-7.)

In the Final Rule, DOE acknowledged CEC and ACEEE's comments regarding the need to monetize CO_2 emissions, but dismissed the recommendations. 72 Fed. Reg. at 58210-58211 (ER 24-25.) DOE summarily stated that it "did not include estimates of the economic benefits of CO_2 emissions reductions because of uncertainties in the forecast of the economic value of such emissions reductions." 72 Fed. Reg. at 58211 (ER 25.)

D. Environmental Assessment and Finding of No Significant Impact for Final Rule

DOE issued an EA as part of the technical support documents for the Final Rule on October 12, 2007. Final Rule EA (ER 56.) The EA included

CO_2 emissions data for each standard level, but lacked any discussion about what the data meant in the context of climate change. Final Rule EA 20-25, Tables EA.11-EA.18 (ER 78-82.) The EA recognized the Final Rule's implications for global warming with the following general statement:

> In addition to reducing the secondary energy lost in the distribution transformers themselves, the adopted standards would save even more energy at the electric power plant source, where less primary energy (e.g., oil, coal, or natural gas) directly attributable to the losses from distribution transformers would be burned. Burning less oil, coal or natural gas reduces greenhouse gas emissions and pollutants, creating a cleaner environment.

Final Rule EA-30 (ER 88.) And the EA noted, "The U.S. CO_2 emissions from both energy consumption and industrial processes account for 84.6 percent of total U.S. greenhouse gas emissions." Final Rule EA-15 (ER 73.) The EA stated that CO_2 emissions reductions were highest for liquid-immersed TSL 6 at 674 Mt and lowest for medium-voltage, dry-type TSL 1 at 5.8 Mt (Final Rule EA-21, EA-25 Table EA.19 (ER 79, 83)), but that the adopted standards (TSL C and TSL 2) would result in "significant" reduction of greenhouse gases associated with electricity production. Final Rule EA-31 (ER 89.) The EA is devoid of any further discussion about the implications of the adopted standards, or the more stringent standards that were evaluated but rejected, for climate change.

DOE included discounted CO_2 emissions in the EA for the Final Rule.

Final Rule EA-25 (ER 83.) The Department stated:

> Consistent with Executive Order 12866, 'Regulatory Planning and Review,' 58 FR 51737, DOE follows the guidance of OMB regarding methodologies and procedures for regulatory impact analysis that affect more than one agency. In reporting energy and environmental benefits from energy conservation standards, DOE will report both discounted and undiscounted (i.e., zero discount-rate) values.

72 Fed. Reg. at 58209 (ER 23.) The most stringent standard evaluated for liquid immersed transformers, TSL 6, would reduce CO_2 emissions by a total of 674 Mt, which, according to DOE, is equivalent to 145 Mt when discounted by a rate of 7% over 29 years. Final Rule EA-25, Table EA.19 (ER 83.)

Almost one month after the Final Rule was adopted, DOE published a Finding of No Significant Impact ("FONSI"). 72 Fed. Reg. at 63563 (Nov. 9, 2007) (ER 1.) The FONSI acknowledged, "The main environmental impact is decreased [greenhouse gas] emissions from fossil-fueled electricity generation." *Id.* The FONSI concluded, "Based on an Environmental Assessment (EA). . . DOE has determined that the adoption of energy efficiency for liquid-immersed distribution transformers and medium-voltage dry-type distribution transformers, as adopted by the Final Rule. . . , would not . . . significantly affect[] the quality of the human environment. . . . Therefore, an environmental impact statement (EIS) is not required." *Id.*

SUMMARY OF ARGUMENT

Recognizing the importance of energy efficiency, Congress has tasked

DOE with setting energy conservation standards for certain appliances and equipment, including electricity distribution transformers. Distribution transformers, mounted on utility poles or small concrete pads, reduce the power of electric current from the high voltages used in transmission lines to the lower voltages suitable for use by residential and commercial utility customers. Currently, approximately 41 million transformers are in use across the U.S.

In the U.S., aside from automobiles, appliances and equipment are the largest users of energy derived from fossil fuels. Making equipment more energy efficient is one of the most effective ways to reduce greenhouse gas emissions that contribute to climate change. More efficient distribution transformers can reduce the amount of electricity that is lost in the transformation process and thereby reduce CO_2 emissions associated with power generation by hundreds of millions of tons over the lifetime of the equipment.

DOE adopted its first efficiency standards for distribution transformers on October 12, 2007. In so doing, it failed in several respects to take a hard look at the environmental consequences of adopting less stringent standards as required by NEPA.

First, DOE developed these standards on an abbreviated environmental document, an EA, which failed to evaluate the cumulative global warming

impacts related to CO_2 emissions. Climate change is one of the most serious environmental impacts facing the U.S. today. The efficiency standards at issue will affect the emissions of hundreds of millions of metric tons of greenhouse gases over the nearly 30-year lifespan of the regulated transformers. As DOE acknowledged, energy consumption and industrial processes account for 84.6 percent of total U.S. greenhouse gas emissions. But the Department did not examine how the transformer standards, together with relevant past, present or reasonably foreseeable projects, would contribute to this enormous impact. Without an evaluation of the cumulative climate change impacts associated with the transformer standards, the Department lacked the requisite convincing statement of reasons why the standard's potential impacts were insignificant. Where, as in this case, there is a substantial question whether the Department's decision will have a significant effect on the environment, a more thorough document, an EIS, is required.

Additionally, DOE's environmental document failed adequately or accurately to inform decisionmakers and the public about the practical effects of the standards on climate change. DOE set forth the projected tons of CO_2 emissions reductions associated with each proposed standard without discussing how these bare numbers were relevant to climate change. Compounding the problem, DOE minimized the value of the avoided emissions

available under more stringent standards by applying a discount rate of 3% and 7% to this pollution, and provided no analysis supporting its decision to discount.

In addition to DOE's flawed NEPA analysis, DOE also violated EPCA in its required evaluation of economic justification. Specifically, DOE refused to consider the economic value of the avoided CO_2 emissions that would result from more stringent standards. The record, case law and recent DOE rulemaking demonstrate that valuing this benefit is not only feasible, but required. Accordingly, DOE's decision was not supported by substantial evidence as required by EPCA and was, therefore, arbitrary and capricious.

The Final Rule, which resulted from a flawed environmental and economic analysis, should be vacated and remanded to DOE for further review.[3/]

ARGUMENT

Petitioners challenge two aspects of the Final Rule. First, Petitioners challenge DOE's failure to take a hard look at the environmental impacts associated with the distribution transformer efficiency standards as required by NEPA. Second, Petitioners challenge DOE's failure to consider adequately the

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3. Government Petitioners join in the arguments presented in NRDC and Sierra Club's opening brief, but in the interest of judicial economy, will not repeat them here.

benefits of reduced CO_2 emissions in determining that more stringent standards were not economically justified as required by EPCA. *See* 42 U.S.C. § 6306(b)(1); 5 U.S.C. § 706.

I. DOE's Decision Not To Prepare an EIS, In Light of the Standards' Potential Contribution to Climate Change, Violated NEPA.

A. NEPA Establishes a Low Threshold for Preparation of an EIS.

An agency's decision to proceed with a federal rulemaking without benefit of an EIS must be reversed if it is arbitrary and capricious. 5 U.S.C. § 706(2)(a); *Greenpeace Action v. Franklin*, 14 F.3d 1324, 1331-1332 (9th Cir. 1992); *see also Native Ecosystems Council v. Dombeck*, 304 F.3d 886, 891 (9th Cir. 2002). This standard requires a court to ensure that DOE has taken a "hard look" at the environmental consequences and that the agency's decisions are "founded on a reasoned evaluation of the relevant factors. . .." *Id.*

NEPA establishes a relatively low threshold for preparation of an EIS. *Klamath Siskiyou Wildlands Ctr. v. Boody,* 468 F.3d at 562; *NRDC v. Duvall*, 777 F. Supp. 1533, 1537 (E.D. Cal. 1991). Petitioners need not prove that a significant environmental effect will in fact take place. *Found. for N. Am. Wild Sheep v. U.S. Dep't of Agric.*, 681 F.2d 1172, 1178 (9th Cir. 1982). Rather, "[i]f substantial questions are raised whether a project may have a significant effect upon the human environment, an EIS must be prepared." *Id.* "A significant effect may exist even if the Federal agency believes that on balance

the effect will be beneficial." 40 C.F.R. § 1508.27(b)(1).

An agency may not limit its analysis to the impacts of the project, viewed in isolation. NEPA requires agencies to evaluate whether a project's impacts, though individually limited, are cumulatively significant. 40 C.F.R. § 1508.27(b)(7). A cumulative impact is defined as

> the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

40 C.F.R. § 1508.7. Where it is reasonable to anticipate a cumulatively significant impact on the environment, an agency must prepare an EIS to examine that impact. 40 C.F.R. § 1508.27(b)(7); *Blue Mts. Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1212 (9th Cir. 1998).

B. The Potential for Cumulative Climate Change Impacts May Trigger the Need for an EIS.

An agency must consider the contemplated action in context. *Ctr. for Biological Diversity,* 508 F.3d at 518. Where a project will affect the emissions of greenhouse gases, the relevant environmental context is climate change. This serious environmental impact is caused by the additive effect of numerous past and ongoing projects, and can be exacerbated by new projects that add to the atmospheric greenhouse gas burden. Even where a regulation

may decrease the rate of greenhouse gas emissions from its present trajectory, an agency must evaluate the regulation's cumulative climate change impacts. *Id.* at 549-550. As this Court noted in *Center for Biological Diversity v. National Highway Traffic Safety Administration* ("NHTSA"), "[t]he impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct." *Id.* at 550.

C. DOE's Decision that an EIS was Not Required is Not Supported by a Convincing Statement of Reasons.

As discussed, DOE affirmatively decided not to prepare an EIS, instead adopting a FONSI. "'An agency's decision not to prepare an EIS will be considered unreasonable if the agency fails to supply a convincing statement of reasons why potential effects are insignificant.'" *Blue Mts. Biodiversity Project v. Blackwood*, 161 F.3d at 1211 (quoting *Save the Yaak Committee v. Block*, 840 F.2d 714, 717 (9th Cir. 1988)); *see also Ctr. for Biological Diversity,* 508 F.3d. at 548. "The statement of reasons is crucial to determining whether the agency took a 'hard look' at the potential environmental impact of a project." *Id.* at 1212

While DOE calculated the bare CO_2 emissions for the standard levels under consideration, it failed to discuss how its FONSI – its finding that the climate change related impacts of the standards would have no significant impacts – was supported by the evidence. It is not. In fact, the only conclusion

that DOE drew about climate change in its EA contradicts its FONSI. The EA stated that the Final Rule's, "[E]nergy savings would *significantly* reduce emissions of air pollutants and greenhouse gases associated with electricity production, by 250 Mt of CO_2." Final Rule EA-31 (emphasis added) (ER89.) However, in the FONSI, the Department stated that this reduction would *not* significantly affect the quality of the human environment.[4/] 72 Fed. Reg. at 63563 (ER 1.) An agency, in setting standards that will affect greenhouse gas emissions, cannot conclude that the cumulative global warming impacts are not significant without "explain[ing] *why* its rule will not have a significant effect." *Ctr. for Biological Diversity,* 508 F.3d. at 557. DOE's attempt to avoid its obligation to prepare an EIS by its unsupported statement of reasons should be rejected.

D. Because There is a Substantial Question that the Transformer Standards May Have a Significant Impact on CO_2 Emissions and Global Warming, DOE Must Prepare an EIS.

As DOE acknowledged in the EA, U.S. CO_2 emissions from both energy consumption and industrial processes account for 84.6 percent of total U.S. greenhouse gas emissions. Final Rule EA-15 (ER 73.) Inefficiency related to

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4. Arguably, DOE cannot in any event rely on the FONSI to justify its failure to prepare an EIS, as the FONSI was published almost one month after the Final Rule was adopted. 72 Fed. Reg. at 63563 (ER 1); *see* 40 C.F.R. § 1500.1(b); OMB Circular A-4 at 44 (ER 328.)

energy consumption is in part responsible for these emissions.[5] Yet the Department failed to prepare an EIS to examine any of the actions that contribute to the collectively significant, cumulative impact of climate change. Final Rule EA-20 (ER 78.) An agency "must at a minimum, provide a 'catalog of past projects' and a discussion of how these projects (and differences between the projects) have harmed the environment." *NRDC v. U.S. Forest Serv.*, 421 F.3d 797, 814-815 (9th Cir. 2005) (holding cumulative impacts analysis inadequate because it failed to address relevant past and foreseeable future projects.)

Among the actions that DOE should have but failed to consider were its own past, present, and foreseeable future energy efficiency standards for appliances and equipment. *See Ctr. for Biological Diversity,* 508 F.3d at 549. To take but two examples, DOE recently adopted energy conservation standards for furnaces and boilers, and it is in the NOPR stage of setting such standards for commercial air conditioners and heat pumps. Energy

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5. Improvements in energy efficiency are generally recognized as important measures to curb greenhouse gas emissions. *Ctr. for Biological Diversity,* 508 F.3d at 550; *see* Intergovernmental Panel on Climate Change, Fourth Assessment Report, Summary for Policymakers, Working Group III at 13, available at http://www.ipcc.ch/ipccreports/ar4-wg3.htm ("It is often more cost-effective to invest in end-use energy efficiency improvement than in increasing energy supply to satisfy demand for energy services. Efficiency improvement has a positive effect on energy security, local and regional air pollution abatement, and employment.")

Conservation Program for Consumer Products: Energy Conservation Standards for Residential Furnaces and Boilers; Final Rule, 72 Fed. Reg. 65136 (Nov. 19, 2007)[6]; Energy Conservation Program for Commercial and Industrial Equipment: Packaged Terminal Air Conditioner and Packaged Terminal Heat Pump Energy Conservation Standards; Proposed Rule, 73 Fed. Reg. 18858 (April 7, 2008) ("Packaged AC NOPR").[7]

DOE may argue that the impacts of the transformer standards are not significant, because establishing more stringent standards for this equipment will not put an end to global warming. But as the Supreme Court explained in *Massachusetts v. Environmental Protection Agency,* 127 S. Ct. at 1457, "Agencies, like legislatures, do not generally resolve massive problems in one fell regulatory swoop." DOE's transformer standards will not resolve climate change, but they are one piece of an effort that DOE must make at every reasonable opportunity, presented by every efficiency standard including this one, to consider the value of reducing emissions that contribute to this serious and costly environmental problem. As this Court explained in *Center for*

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6. Available at http://www.eere.energy.gov/buildings/appliance_standards/commercial/furnaces_boilers.html

7. Available at http://www.eere.energy.gov/buildings/appliance_standards/commercial/ptacs_pthps_nopr.html

Biological Diversity v. NHTSA, an agency has the power to change efficiency standards based on information contained in an EIS, "Thus, the fact that climate change is largely a global phenomenon that includes actions that are outside of the agency's control does not release the agency from the duty of assessing the effects of *its* actions on global warming within the context of other actions that also affect global warming." 508 F.3d at 549-550 (internal quotations omitted).

Given the role that DOE's energy efficiency standards play in reducing greenhouse gas emissions, it is reasonable to anticipate that the transformer standards will have a cumulatively significant impact on climate change. Without the benefit of an EIS that evaluates the standards' cumulative climate change effects, DOE cannot set energy efficiency standards that take these environmental impacts into consideration. Accordingly, DOE's decision not to prepare an EIS to examine those impacts was arbitrary and capricious.

II. The EA Does Not Adequately Inform the Decisionmakers and the Public About The Standards' Global Warming Impacts

Even assuming that DOE could proceed on an EA, which, as discussed, it could not consistent with NEPA, the EA it issued did not serve NEPA's informed decision making and public disclosure purposes. "The goal of NEPA is two-fold: (1) to ensure the agency will have detailed information on significant environmental impacts when it makes its decisions; and (2) to

guarantee that this information will be available to a larger audience." *Inland Empire Public Lands Council v. U.S. Forest*, 88 F.3d 754, 758 (9th Cir. 1996). DOE's EA, which contains only limited CO_2 emissions data, contravenes NEPA's fundamental purposes, because the meaning of the numbers presented in the document is not apparent to the decisionmakers and the public.

A. The EA Fails to Inform the Public and Decisionmakers of the Standards' Practical Effects.

Under NEPA, "public scrutiny [is] essential," 40 C.F.R. § 1500.1(b). Agencies are required to "encourage and facilitate public involvement in decisions," *id.* § 1500.2(d) so that "environmental information is available to public officials and citizens before decisions are made." *Id.* § 1500.1(b). NEPA documents "shall be written in plain language . . . so that decisionmakers and the public can readily understand them." 40 C.F.R. § 1502.8; *Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989, 996 (9th Cir. 2004). Bare data, standing alone, does not satisfy this requirement. An EA that lacks any analysis regarding the practical effects of a project on the environment undermines the document. *National Parks & Conservation Ass'n v. Babbitt*, 241 F.3d 722, 732 (9th Cir. 2001) (holding that agency was required to prepare an EIS for a planned increase in cruise ship traffic in a national park because the EA failed to provide information

regarding the practical effect of increased traffic on the environment).[8/]

In this instance, DOE's EA contravened NEPA's mandate to inform decisionmakers and the public of the Final Rule's environmental consequences. DOE presented bare data showing that the standards under consideration would result in varying levels of CO_2 emissions, but the Department did not provide information about the practical effect of each of the standards on climate change. Final Rule EA-24, Tables EA.17 and EA.18 (ER 82.) DOE estimated that the total CO_2 reductions for the adopted standard for liquid-immersed transformers is 238 Mt over 29 years, while the more stringent standard of TSL 6 would reduce CO_2 by 674 Mt. Final Rule EA-29, Table EA.21 (ER 87.) The EA stated that these figures were meant to "aid the reader in the discussion of the benefits and burdens from the different TSLs as well as the no-action alternative." Final Rule EA-29 (ER 87.) However, without some discussion to put these numbers in context and to explain their practical implications, they are meaningless.

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8. DOE's required compliance with NEPA not only furthers NEPA's objectives, it advances EPCA's goals. As explained by the *Center for Biological Diversity v. NHTSA* Court,

> EPCA's goal of energy conservation and NEPA's goals of "helping public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment" and "insuring that environmental information is available to public officials and citizens before decisions are made and before actions are taken" are complementary.

508 F.3d at 547 (citations omitted).

DOE's own NEPA Compliance Guide underscores the importance of presenting more than bare numbers and figures. As that document states: "In addition to identifying pollutants that would be released and wastes that would be produced, identify potential effects from these substances (e.g., human diseases, and effects on plant and animal populations and ecosystem functions). *A quantified release rate should not be the endpoint in impact analysis*." U. S. Department of Energy National Environmental Policy Act Compliance Guide, Volume 2 (Dec. 2004) (emphasis added).[9/] Contrary to this guidance, DOE ended its analysis of the Final Rule's global warming impacts with quantified CO_2 emissions reduction data.

Because DOE did not adequately inform decisionmakers and the public about the standards' environmental impacts, it violated NEPA.

B. The EA's Inclusion of Discounted CO_2 Emissions Misled Decisionmakers and the Public.

Not only must the information presented in an EA be understandable, it must be accurate. To take the required "hard look" at a proposed project's environmental effects, an agency may not rely on incorrect assumptions or data. *Native Ecosystems Council v. U.S. Forest Serv.*, 418 F.3d 953, 964 (9th Cir. 2005). Moreover, an agency cannot present a document that is so misleading that decisionmakers and the public cannot make an informed

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9. Available at http://www.eh.doe.gov/nepa/guidance.html.

comparison of alternatives. *Ecology Ctr., Inc. v. Austin*, 430 F.3d 1057, 1067 (9th Cir. 2005) (holding that agency violated NEPA by presenting misleading information about a project's impacts on sensitive species' habitat); *NRDC v. U.S. Forest Service*, 421 F.3d at 812-813 (holding that agency violated NEPA where it used inaccurate economic information about the forecast demand for timber in developing land management plan).

In the EA, as discussed, DOE noted the tons of emissions reductions (avoided emissions) that would be achieved by each TSL under consideration over the 29-year expected lifespan of the transformers. But, in addition, DOE applied 3% and 7% discount rates to the physical pollution emissions associated with each of the TSLs. (Petitioners acknowledge that discounting money is an accepted practice. The basic concept underlying the use of discount rates is that a dollar in the future is not as valuable as a dollar today. *Herrington*, 768 F.2d 1412. Therefore, a discount rate is used to reduce the value of future monetary benefits and costs and to give them a present value. *See id.*; *see also* Final Rule 72 Fed. Reg. at 58208 (ER 22).) When DOE applied the discount rates to physical emissions, it substantially reduced the value of future emissions. Undiscounted, the emissions reductions benefits of the standards for liquid-immersed transformers ranged from125 Mt for TSL 1 to 674 Mt for TSL 6. Final Rule EA-25, Table EA.19 (ER 83.) At the 7%

discount rate, the emissions reductions ranged from 27 Mt for TSL 1 to 145 Mt for TSL 6. Final Rule EA-25, Table EA.19 (ER 83.) At this discounted rate, a reasonable reader of the EA could conclude that, perhaps, the emissions reductions differences in the various standards under consideration were not significant.

As commentators pointed out, DOE's decision to discount these emissions is unsupportable. As expert agency the California Energy Commission noted, "Quads of energy and tons of air pollutants are physical entities" that "do not change over time"; they do not "have a 'time value' in the way money does." Comment 98 at 4 (ER 171.) Commentators noted that the very nature of climate change and its relationship to greenhouse gas emissions make discounting inappropriate. In the climate change context, where the benefits of reduced CO_2 emissions become more, rather than less, valuable in the future, reverse discounting, rather than applying a 0% discount rate, would have been appropriate. As Dr. Goldstein explained,

> For climate pollution, virtually all analyses of how to prevent disastrous climate change require greater and greater cuts in emissions the farther into the future you go. It is therefore reasonable to calculate that the economic value of reducing CO_2 emissions in the far future is much higher than it is today. Again, reverse discounting would seem to make more sense than conventional discounting.

Comment No. 99 at 10 (Sept. 12, 2006) (ER 181.).[10/]

Furthermore, in the context of global warming, discounting CO_2 emissions that occur in the future is not only illogical, as commentators such as NRDC pointed out, it may be unethical. *See* Transcript of Public Meeting on Proposed Energy Conservation Standards for Distribution Transformers at 113:17-114:6 (Sept. 27, 2006) Comment No. 108.6 (stating that "[e]missions mean deaths") (ER 159.) The ethical issues associated with discounting intergenerational impacts in regulatory analysis have been a topic of debate among scholars. As one article noted, with "a discount rate of five percent, for example, the death of a billion people 500 years from now becomes less serious than the death of one person today." Ackerman and Henzerling, Pricing the Priceless, 150 U PA L REV 1553, 1571 (2002). As another author explained, "If the most serious effects of climate change will be felt in 2100 or beyond, a decision to discount at any significant rate — even 3 percent — will dramatically reduce the monetized gain of emissions reduction strategies." Sunstein and Rowell, On Discounting Regulatory Benefits: Risk, Money, and Intergenerational Equity, 74 U. CHI. L. REV. 171, 172 (2007); *see also*, Farber

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10. It is widely recognized that there are many feedback mechanisms in the climate system that can either amplify or diminish the effects of a change in climate. *See, e.g.*, IPCC, 2007: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Frequently Asked Question 1.1 at 95, available at http://ipcc-wg1.ucar.edu/wg1/FAQ/wg1_faq-1.1.html.

and Hemmersbaugh, The Shadow of the Future: Discount Rates, Later Generations, and the Environment, 46 VAND. L. REV. 267, 268-269 (March, 1993).[11/]

Rather than responding to these serious concerns by explaining the reasoning behind its decision to discount emissions or removing the discounted data from the EA, DOE summarily stated that it was following guidance from OMB. Transcript of Public Meeting on Proposed Energy Conservation Standards for Distribution Transformers at 107:18-108:10 (Sept. 27, 2006) Comment No. 108.6 (ER 156-157); 72 Fed. Reg. at 58209 (ER 23.) DOE's deficient response contradicts NEPA's goal of encouraging public scrutiny. 40 C.F.R. § 1500.1(b); *see Native Ecosystems Council v. U.S. Forest Serv.*, 418 F.3d at 964-965 (holding agency's NEPA document inadequate because it did not provide a full and fair discussion of the potential effects of a project on species' habitat and did not inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts on the

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11. The very OMB guidance relied upon by DOE recognizes the ethical issues associated with discounting impacts that cross generations. OMB Circular A-4 at 35 (ER 319.) Though OMB concludes that such concerns should not prevent agencies from discounting intergenerational impacts, it acknowledges that a lower discount rate might be appropriate when examining these effects. OMB Circular A-4 at 36 (ER 320.) In this instance, DOE did not discuss the intergenerational implications of the various standards under consideration, explain its decision to discount pollution, or analyze why a given rate – 0%, 3% or 7% – is more or less appropriate.

species.) NEPA requires "up-front disclosures of relevant shortcomings in the data or models." *Lands Council v. Powell*, 395 F.3d 1019, 1032 (9th Cir.2005). Moreover, NEPA requires more of an agency than simply a dismissal of opposing credible viewpoints. *Seattle Audubon Soc. v. Espy*, 998 F.2d 699, 704 (9th Cir. 1993). Here, DOE made no attempt to disclose the shortcomings of the data in the EA and failed to respond to serious and considered expert questions about its decision to discount emissions.

DOE's decision to include misleading discounted emissions data in the EA is not excused by its purported adherence to the OMB guidance for two additional reasons. First, DOE is not bound by the guidance. *Lowry v. Barnhart*, 329 F.3d 1019, 1022 (9th Cir. 2003) (finding that where agency procedures do not invoke any congressional grant of authority and were not subject to notice and comment they are unenforceable); *see also, Moore v. Apfel*, 216 F.3d 864, 868-869 (9th Cir.2000) (holding that internal hearings, appeals and litigation manual was not binding on hearing commissioner); *Herrington*, 768 F.2d at 1413 (holding that "DOE may not rely without further explanation on an unelaborated order from another agency"). DOE's unelaborated reference to a nonk-binding agency guidance document does not constitute substantial evidence to support its decision to apply discount rates to physical emissions.

Second, the guidance document itself gave DOE discretion to elect not to apply discount rates to physical emissions. OMB guidance specifies that discounting non-monetized benefits is not appropriate in all circumstances. Circular A-4 at 36 (ER 320.) In fact, the document explains, "If the expected flow of benefits begins as soon as the cost is incurred and is expected to be constant over time, then annualizing the cost stream is sufficient, and further discounting of benefits is unnecessary. Such an analysis might produce an estimate of annualized cost per ton of reduced emissions of a pollutant." *Id.* (ER 320.) Thus, OMB recognizes that discounting reduced emissions of a pollutant may be inappropriate and that a more appropriate analysis might be to apply an annualized monetary value per ton to the reduction.[12/] DOE, as discussed, did neither, and did not explain its failure.

In sum, DOE's decision to include discounted emissions calculations in its EA for the Final Rule undermines the informed decisionmakers purposes of NEPA. The discounted emissions figures are so misleading that DOE and the public could not effectively compare the environmental impacts of each TSL; therefore, DOE's reliance on the EA was arbitrary and capricious.

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12. See section III. B. regarding DOE's failure to monetize reduced CO_2 emissions.

III. DOE's Final Rule for Distribution Transformer Efficiency Standards Violates EPCA.

A. Standard of Review Under EPCA and the APA

The APA governs judicial review of rules adopted pursuant to EPCA. 42 U.S.C. § 6306(b)(2); 5 U.S.C. § 706. Under the APA, a court must "hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law; . . . [or] without observance of procedure required by law[.]" 5 U.S.C. § 706 (2)(A). A court must reverse a decision as arbitrary or capricious if the agency:

> [1] relied on factors Congress did not intend it to consider, [2] entirely failed to consider an important aspect of the problem, [3] offered an explanation that ran counter to the evidence before the agency, or [4] offered one that is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

Sierra Club v. Bosworth, 510 F.3d 1016, 1022-1023 (9th Cir. 2007) (quoting *W. Radio Servs. Co. v. Espy*, 79 F.3d 896, 900 (9th Cir.1996)).

Under EPCA, DOE's rules must be supported by substantial evidence. 42 U.S.C. § 6306(b)(2); *Herrington*, 768 F.2d at 1369. "Substantial evidence is 'such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.'" *Smolen v. Chater*, 80 F.3d 1273, 1279 (9th Cir. 1996) (quoting *Richardson v. Perales*, 402 U.S. 389, 401 (1971)). In determining

whether an agency's findings are supported by substantial evidence, a court must consider the evidence as a whole, weighing both the evidence that supports and the evidence that detracts from the agency's decision. *Id.*; *see Universal Camera Corp. v. NLRB*, 340 U.S. 474, 488 (1951).

B. DOE's Decision Not To Account For The Economic Value of Carbon Dioxide Emissions Was Arbitrary and Capricious.

In determining whether each standard under consideration was "economically justified" DOE was required to consider "the need for national energy . . . conservation[.]" 42 U.S.C. § 6295(o)(2)(B)(i)(VI)).[13/] DOE rightly concluded that greenhouse gas emissions are relevant to this economic calculus. 72 Fed. Reg. at 58197 (ER 11.) But DOE failed to translate greenhouse gas emissions into a per-ton economic figure or to monetize the effects of more or less stringent standards, even though commentators specifically requested that DOE account for these benefits. Transcript of Public Meeting on Proposed Energy Conservation Standards for Distribution Transformers at 42:21-43:3, 239:21-240:10 (Sept. 27, 2006) Comment No. 108.6 (ER 148-149, 162-163.) Instead, DOE simply quantified the tons of reduced CO_2 emissions associated with the various standards under

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13. The NEPA violations set forth in Section I., above, also constitute violations of EPCA, because DOE incorporated its environmental analysis as part of the economic justification discussion in the Final Rule. 72 Fed. Reg. at 58211 (ER 25.) For the sake of efficiency, Petitioners note, but will not restate, these arguments.

consideration. 71 Fed. Reg. at 44395, Table V.19 (ER 228); 72 Fed. Reg. at 58226, Table VI.21 (ER 40.)

As this Court has held, where an agency is required to account for the value of greenhouse gas pollution, its failure to do so renders the resulting rule invalid. In *Center for Biological Diversity v. NHTSA*, petitioners challenged the corporate average fuel economy (CAFE) standards adopted by NHTSA under EPCA. 508 F.3d at 512. In developing these standards, EPCA directs NHTSA to consider the economic practicability of the standards and the need of the United States to conserve energy. 49 U.S.C. 32902(f). This Court determined that NHTSA should have included the value of reduced CO_2 emissions in its evaluation. *Ctr. for Biological Diversity*, 508 F.3d at 533. "The value of carbon emissions reduction is nowhere accounted for in the agency's analysis, whether quantitatively or qualitatively." *Id.* The Court explained that NHTSA had to take all relevant costs and benefits into account, including "the most significant benefit of more stringent CAFE standards: reduction in carbon emissions." *Id.* at 531-532.

DOE replicated NHTSA's mistake by failing quantitatively or qualitatively to evaluate the benefits of reduced CO_2 emissions in its economic justification analysis for the transformer standards. DOE refused to monetize this benefit and thus, arbitrarily set the value of reduced CO_2 emissions at zero.

As this Court has held "the value of carbon emissions reduction is certainly not zero" and therefore must be accounted for. *Ctr. for Biological Diversity*, 508 F.3d at 533. DOE here made no attempt to consider the economic impact of CO_2 emissions reductions offered by the alternative standards under consideration.

In refusing to monetize the value of reduced CO_2 emissions, DOE ignored the very OMB guidance, OMB Circular A-4, that the Department stated it was relying on in this rulemaking. 71 Fed. Reg. at 44393 (ER 226), 72 Fed. Reg. at 58209 (ER 23.) The guidance document recommends "monetization of quantitative estimates whenever possible." OMB Circular A-4 at 27 (ER 311.) The guidance document goes on to require that "[i]f monetization is impossible, explain why and present all available quantitative information. . ." *Id.* (ER 311.) DOE did not provide any support for the argument that monetization of CO_2 emissions reduction would be *impossible*; rather, DOE stated summarily that it would not monetize "because of uncertainties in the forecast of the economic value of such emissions reductions." 72 Fed. Reg. at 58211 (ER 25.) This falls short of the analysis and support required by the guidance document to avoid monetization.

And DOE's argument about the uncertainty involved in monetizing the

value of avoided greenhouse gas pollution does not stand up to scrutiny.[14/] Indeed DOE made this precise argument in *Center for Biological Diversity v. NHTSA,* and this Court rejected NHTSA's assertion that valuing reduced CO_2 emissions and other greenhouse gases was too uncertain to support their valuation. 508 F.3d at 524-525, 534. The Court found that the agency's reasoning was arbitrary and capricious in part, because it had monetized other uncertain benefits. *Id.* at 534-535. Similarly, in this case, DOE monetized information in its economic justification calculus based on forecasts full of uncertainties and variation. Final Rule TSD Ch. 8, Appendix 8B (ER 93.) For example, to account for the economic impact of the proposed rule on transformer consumers, DOE analyzed life cycle costs, which is the total customer cost over the life of the equipment, including purchase expense and operating costs, such as energy expenditures and maintenance. 72 Fed. Reg. at

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14. DOE may argue that its decision not to monetize the benefits of reduced CO_2 emissions is supported by DOE's 1996 "Process Rule." *See* 71 Fed. Reg. at 44361 (ER 194); 61 Fed. Reg. 36974 (July 15, 1996). The Process Rule was promulgated as a guidance document for procedures, interpretations and policies for developing new and revised energy standards for *consumer* products. 61 Fed. Reg. at 36974. The Process Rule states that there are no analytical methods for accurately estimating the monetary value of environmental benefits. 61 Fed. Reg. at 36979. Whatever the validity of this statement in 1996, it is no longer the case that these benefits, and more specifically, the benefits of reduced CO_2 emissions, cannot be monetized. *Ctr. for Biological Diversity*, 508 F.3d at 534-535; Packaged AC NOPR, 73 Fed. Reg. at 18901. Moreover, even the Process Rule recognizes DOE's ability to deviate from its provisions on a case-by-case basis where appropriate. 61 Fed. Reg. at 36979.

58205 (ER 19.) As DOE recognized, almost all of the inputs for the life cycle cost analysis included uncertainties and variability. Final Rule TSD Ch. 8, Appendix 8B (ER 93.) Therefore, for example, DOE accounted for electricity price trends in its life cycle cost analysis by incorporating several different projections of these trends. 72 Fed. Reg. at 58206 (ER 20); TSD Ch. 8.

DOE's rulemaking for another product demonstrates that the purported uncertainties of monetizing the benefits of CO_2 emissions reductions are not a true impediment. *See* Packaged AC NOPR, 73 Fed. Reg. at 18901. In the Packaged AC NOPR, as part of the"Need of the Nation to Conserve Energy" factor under EPCA, DOE proposed an approach for monetizing reduced CO_2 emissions. 73 Fed. Reg. at 18900-18901. The NOPR stated, "To put the potential monetary benefits from reduced CO_2 emissions into a form that is likely to be most useful to decision makers and stakeholders, DOE used the same methods used to calculate the net present value of consumer cost savings: The estimated year-by-year reductions in CO_2 emissions were converted into monetary values ranging from \$0-\$14 per ton." 73 Fed. Reg. at 18901. The NOPR explained that the estimates were based on an assumption of no benefit (\$0) to an average benefit value (\$14) reported by studies cited by the IPCC in its Fourth Assessment Report, Summary for Policymakers. *Id.*[15/] The IPCC

15. DOE arrived at \$14 by relying on the IPCC's finding that "the mean social cost of carbon (SCC) reported in studies published in peer-reviewed jounals

report was published in April, 2007, six months before DOE issued the Final Rule for distribution transformer standards.

Where, as here, DOE received comments indicating the benefit of CO_2 reduction can be valued economically, DOE's mere dismissal of the comments is not supported by substantial evidence. *See Herrington,* 768 F.2d at 1413-1414. While an agency need not respond to every comment, it must respond to comments in a reasoned manner and explain how the agency resolved problems raised in the comments. *Sequoia Orange Co. v. Yeutter*, 973 F.2d 752, 758 (9th Cir. 1992) (citing *Rodway v. United States Dep't of Agriculture*, 514 F.2d 809, 817 (D.C.Cir.1975)); *see also*, *International Ladies' Garment Workers' Union v. Donovan* 722 F.2d 795, 818 (D.C. Cir. 1983) (holding that an agency must respond in a reasoned manner to explain how the agency resolved any significant problems raised by the comments, and to show how that resolution led the agency to the ultimate rule.) Here, DOE's brief response suggesting that uncertainties prevented the Department from monetizing CO_2 reductions is inadequate, because it did not explain how the Department resolved the issue or how that resolution led to DOE's choice of transformer standards. DOE's unelaborated rejection of the comments critical

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was $43 per ton of carbon. This translates into about $12 per ton of carbon dioxide." 73 Fed. Reg. at 18901 n. 39. Because the numbers in the underlying studies were somewhat outdated, DOE updated the mean number to 2007 dollars, arriving at $14/ton. *Id.*

of its decision not to monetize the benefit of reduced CO_2 emissions "is simply too cursory to qualify as reasoned decisionmaking." *Herrington*, 768 F.2d at 1413.

Had DOE assigned even a conservative monetary value for avoided CO_2 emissions, this likely would have changed its analysis of economic justification. For example, DOE projected that for liquid-immersed transformers, TSL 6, which DOE rejected as not being economically justified, would result in 674 million tons of reduced CO_2 emissions over the 29-year period of analysis, some 1.5 times greater than the projected reductions associated with the TSL (TSL C) adopted by DOE. 72 Fed. Reg. at 58226 (Table VI.21) (ER 40.) Using the range of $0 - $14/ton, as DOE did in its Packaged AC NOPR, TSL 6 would result in emissions reductions worth up to $9,436,000,000. With a discount rate of 3% and 7% applied to this number, the present value of this figure is $3,988,855,806 and $1,321,290,464 respectively. By this failure to account for these reductions, DOE has injected a systemic bias in favor of less stringent standards, in contravention of the underlying purpose of EPCA, and, moreover, has "put a thumb on the scale by undervaluing the benefits and overvaluing the costs of more stringent standards." *Ctr. for Biological Diversity*, 508 F.3d at 531.

DOE did not satisfy EPCA's requirement that its energy efficiency

standards be supported by substantial evidence. Its decision was therefore arbitrary and capricious, as DOE failed to observe a procedure required by law and failed to consider an important aspect of the standards' impacts, specifically, the value of reduced CO_2 emissions.

CONCLUSION

This Court should vacate the Final Rule and remand the matter back to DOE with instructions to (1) prepare an EIS for the Final Rule that fully and adequately informs the decision makers and the public of the potential global warming impacts of the distribution transformer standards as required by NEPA; (2) monetize CO_2 emissions in determining whether the proposed rule is economically justified as required by EPCA; and (3) consider whether the substantial economic value of the various standards' greenhouse gas emissions reductions requires DOE to adopt a more stringent standard as economically justified. Additionally, because of the long delays associated with DOE's adoption of the Final Rule, Petitioners request that the Court order DOE to

complete the remanded rulemaking within one year from the date of entry of a decision in this matter.

DATED: June 26, 2008

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CERTIFICATE OF COMPLIANCE

Pursuant to Federal rule of Appellate Procedure 32(a)(7)(c), the undersigned counsel hereby certifies that the foregoing brief complies with the volume limitation of Rule 32(a)(7)(B)(i) in that the brief contains 12, 268 words, as measured by the word-processing system used to prepare the brief (Corel WordPerfect 8).

Dated: June 26, 2008

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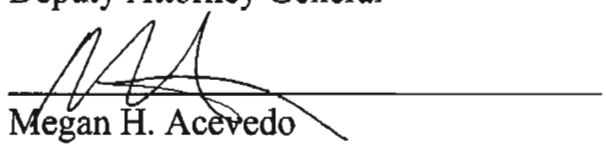

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STATEMENT OF RELATED CASES

Government Petitioners are aware of two cases that are related to the present action: (1) *Sierra Club, et al v. Dept. of Energy*, Case No. 07-74836 (filed Dec. 10, 2007) (2) *Natural Resources Defense Council, et al v. Dept of Energy*, Case No. 08-70807 (filed Dec. 11, 2007). On March 6, 2008, the Court consolidated these two petitions with the present petition.

ADDENDUM

STATUTORY APPENDIX

5 U.S.C. § 706

TITLE 5 - Government Organization and Employees
PART I - The Agencies Generally
CHAPTER 7 - Judicial Review

Sec. 706. Scope of Review

To the extent necessary to decision and when presented, the reviewing court shall decide all relevant questions of law, interpret constitutional and statutory provisions, and determine the meaning or applicability of the terms of an agency action. The reviewing court shall—

(1) compel agency action unlawfully withheld or unreasonably delayed; and

(2) hold unlawful and set aside agency action, findings, and conclusions found to be—

(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;

(B) contrary to constitutional right, power, privilege, or immunity;

(C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right;

(D) without observance of procedure required by law;

(E) unsupported by substantial evidence in a case subject to and of this title or otherwise reviewed on the record of an agency hearing provided by statute; or

(F) unwarranted by the facts to the extent that the facts are subject to trial de novo by the reviewing court.

In making the foregoing determinations, the court shall review the whole record or those parts of it cited by a party, and due account shall be taken of the rule of prejudicial error.

(Pub.L. 89-554, Sept. 6, 1966, 80 Stat. 393.)

TITLE 42 - The Public Health and Welfare
CHAPTER 55 - National Environmental Policy
SUBCHAPTER I - Policies and Goals

Section 4332. Cooperation of agencies; reports; availability of information; recommendations; international and national coordination of efforts

The Congress authorizes and directs that, to the fullest extent possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this chapter, and (2) all agencies of the Federal Government shall--

(A) utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment;

(B) identify and develop methods and procedures, in consultation with the Council on Environmental Quality established by subchapter II of this chapter, which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations;

(C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on--

(i) the environmental impact of the proposed action,

(ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,

(iii) alternatives to the proposed action,

(iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and

(v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such statement and the comments and views of the appropriate Federal, State, and local agencies, which are authorized to develop and enforce environmental standards, shall be made available to the President, the Council on Environmental Quality and to the public as provided by section 552 of Title 5, and shall accompany the proposal through the existing agency review processes;

(D) Any detailed statement required under subparagraph (C) after January 1, 1970, for any major Federal action funded under a program of grants to States shall not be deemed to be legally insufficient solely by reason of having been prepared by a State agency or official, if:

(i) the State agency or official has statewide jurisdiction and has the responsibility for such action,

(ii) the responsible Federal official furnishes guidance and participates in such preparation,

(iii) the responsible Federal official independently evaluates such statement prior to its approval and adoption, and

(iv) after January 1, 1976, the responsible Federal official provides early notification to, and solicits the views of, any other State or any Federal land management entity of any action or any alternative thereto which may have significant impacts upon such State or affected Federal land management entity and, if there is any disagreement on such impacts, prepares a written assessment of such impacts and views for incorporation into such detailed statement.

The procedures in this subparagraph shall not relieve the Federal official of his responsibilities for the scope, objectivity, and content of the entire statement or of any other responsibility under this chapter; and further, this subparagraph does not affect the legal sufficiency of statements prepared by State agencies with less than statewide jurisdiction.

(E) study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources;

(F) recognize the worldwide and long-range character of environmental problems and, where consistent with the foreign policy of the United States, lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind's world environment;

(G) make available to States, counties, municipalities, institutions, and individuals, advice and information useful in restoring, maintaining, and enhancing the quality of the environment;

(H) initiate and utilize ecological information in the planning and development of resource-oriented projects; and

(I) assist the Council on Environmental Quality established by subchapter II of this chapter.

(Pub.L. 91-190, Title I, § 102, Jan. 1, 1970, 83 Stat. 853; Pub.L. 94-83, Aug. 9, 1975, 89 Stat. 424.)

TITLE 42 - The Public Health and Welfare
CHAPTER 77 - Energy Conservation

Sec. 6201. Congressional statement of purpose

The purposes of this chapter are--

(1) to grant specific authority to the President to fulfill obligations of the United States under the international energy program;

(2) to provide for the creation of a Strategic Petroleum Reserve capable of reducing the impact of severe energy supply interruptions;

(3) Repealed. Pub.L. 106-469, Title I, § 102(2), Nov. 9, 2000, 114 Stat. 2029

(4) to conserve energy supplies through energy conservation programs, and, where necessary, the regulation of certain energy uses;

(5) to provide for improved energy efficiency of motor vehicles, major appliances, and certain other consumer products;

(6) Repealed. Pub.L. 106-469, Title I, § 102(2), Nov. 9, 2000, 114 Stat. 2029

(7) to provide a means for verification of energy data to assure the reliability of energy data; and

(8) to conserve water by improving the water efficiency of certain plumbing products and appliances.

(Pub.L. 94-163, § 2, Dec. 22, 1975, 89 Stat. 874; Pub.L. 102-486, Title I, § 123(a), Oct. 24, 1992, 106 Stat. 2817; Pub.L. 106-469, Title I, § 102, Nov. 9, 2000, 114 Stat. 2029.)

42 U.S.C. § 6295(o)

TITLE 42 - The Public Health and Welfare
CHAPTER 77- Energy Conservation
SUBCHAPTER III- Improving Energy Efficiency
PART A - Energy Conservation Program for Consumer Products Other Than Automobiles

Sec. 6295. Energy conservation standards

(o) Criteria for prescribing new or amended standards

(1) The Secretary may not prescribe any amended standard which increases the maximum allowable energy use, or, in the case of showerheads, faucets, water closets, or urinals, water use, or decreases the minimum required energy efficiency, of a covered product.

(2)(A) Any new or amended energy conservation standard prescribed by the Secretary under this section for any type (or class) of covered product shall be designed to achieve the maximum improvement in energy efficiency, or, in the case of showerheads, faucets, water closets, or urinals, water efficiency, which the Secretary determines is technologically feasible and economically justified.

(B)(i) In determining whether a standard is economically justified, the Secretary shall, after receiving views and comments furnished with respect to the proposed standard, determine whether the benefits of the standard exceed its burdens by, to the greatest extent practicable, considering—

(I) the economic impact of the standard on the manufacturers and on the consumers of the products subject to such standard;

(II) the savings in operating costs throughout the estimated average life of the covered product in the type (or class) compared to any increase in the price of, or in the initial charges for, or maintenance expenses of, the covered products which are likely to result from the imposition of the standard;

(III) the total projected amount of energy, or as applicable, water, savings likely to result directly from the imposition of the standard;
(IV) any lessening of the utility or the performance of the covered products likely to result from the imposition of the standard;

(V) the impact of any lessening of competition, as determined in writing by the Attorney General, that is likely to result from the imposition of the standard.

(VI) the need for national energy and water conservation; and

(VII) other factors the Secretary considers relevant.

TITLE 42 - The Public Health and Welfare
CHAPTER 77 - Energy Conservation
SUBCHAPTER III - Improving Energy Efficiency
PART A - Energy Conservation Program for Consumer Products Other Than Automobiles

Sec. 6306. Administrative procedure and judicial review

(a) Procedure for prescription of rules

(1) In addition to the requirements of section 553 of Title 5, rules prescribed under section 6293, 6294, 6295, 6297, or 6298 of this title shall afford interested persons an opportunity to present written and oral data, views, and arguments with respect to any proposed rule.

(2) In the case of a rule prescribed under section 6295 of this title, the Secretary shall, by means of conferences or other informal procedures, afford any interested person an opportunity to question--

(A) other interested persons who have made oral presentations; and

(B) employees of the United States who have made written or oral presentations with respect to disputed issues of material fact.

Such opportunity shall be afforded to the extent the Secretary determines that questioning pursuant to such procedures is likely to result in a more timely and effective resolution of such issues.

(3) A transcript shall be kept of any oral presentations made under this subsection.

(b) Petition by persons adversely affected by rules; effect on other laws

(1) Any person who will be adversely affected by a rule prescribed under section 6293, 6294, or 6295 of this title may, at any time within 60 days after the date on which such rule is prescribed, file a petition with the United States court of appeals for the circuit in which such person resides or has his principal place of business,

for judicial review of such rule. A copy of the petition shall be transmitted by the clerk of the court to the agency which prescribed the rule. Such agency shall file in the court the written submissions to, and transcript of, the proceedings on which the rule was based, as provided in section 2112 of Title 28.

(2) Upon the filing of the petition referred to in paragraph (1), the court shall have jurisdiction to review the rule in accordance with chapter 7 of Title 5 and to grant appropriate relief as provided in such chapter. No rule under section 6293, 6294, or 6295 of this title may be affirmed unless supported by substantial evidence.

(3) The judgment of the court affirming or setting aside, in whole or in part, any such rule shall be final, subject to review by the Supreme Court of the United States upon certiorari or certification as provided in section 1254 of Title 28.

(4) The remedies provided for in this subsection shall be in addition to, and not in substitution for, any other remedies provided by law.

(5) The procedures applicable under this part shall not--

(A) be considered to be modified or affected by any other provision of law unless such other provision specifically amends this part (or provisions of law cited herein); or

(B) be considered to be superseded by any other provision of law unless such other provision does so in specific terms by referring to this part and declaring that such provision supersedes, in whole or in part, the procedures of this part.

(c) Jurisdiction

Jurisdiction is vested in the Federal district courts of the United States over actions brought by--

(1) any adversely affected person to determine whether a State or local government is complying with the requirements of this part; and

(2) any person who files a petition under section 6295(n) of this title which is denied by the Secretary.

TITLE 42 - The Public Health and Welfare
CHAPTER 77 - Energy Conservation
SUBCHAPTER III- Improving Energy Efficiency
PART A-1 - Certain Industrial Equipment

Sec. 6316. Administration, penalties, enforcement, and preemption

(a) Application of certain sections to same extent and in same manner as applicable in part A

The provisions of section 6296(a), (b), and (d) of this title, the provisions of subsections (l) through (s) of section 6295 of this title, and section 6297 through 6306 of this title shall apply with respect to this part (other than the equipment specified in subparagraphs (B) through (G) of section 6311(1) of this title) to the same extent and in the same manner as they apply in part A of this subchapter. In applying such provisions for the purposes of this part--

(1) references to sections 6293, 6294, and 6295 of this title shall be considered as references to sections 6314, 6315, and 6313 of this title, respectively;

(2) references to "this part" shall be treated as referring to part A-1 of this subchapter;

(3) the term "equipment" shall be substituted for the term "product";

(4) the term "Secretary" shall be substituted for "Commission" each place it appears (other than in section 6303(c) of this title);

(5)section 6297(a) of this title shall be applied, in the case of electric motors, as if the National Appliance Energy Conservation Act of 1987 was the Energy Policy Act of 1992;

(6)section 6297(b)(1) of this title shall be applied as if electric motors were fluorescent lamp ballasts and as if the National Appliance Energy Conservation Amendments of 1988 were the Energy Policy Act of 1992;

(7)section 6297(b)(4) of this title shall be applied as if electric motors were fluorescent lamp ballasts and as if paragraph (5) of section 6295(g) of this title were section 6313 of this title;

(8) notwithstanding any other provision of law, a regulation or other requirement adopted by a State or subdivision of a State contained in a State or local building code for new construction concerning the energy efficiency or energy use of an electric motor covered under this part is not superseded by the standards for such electric motor established or prescribed under section 6313(b) of this title if such regulation or requirement is identical to the standards established or prescribed under such section; and

(9) in the case of commercial clothes washers, section 6297(b)(1) of this title shall be applied as if the National Appliance Energy Conservation Act of 1987 was the Energy Policy Act of 2005.

42 U.S.C. § 6317(a)

TITLE 42 - The Public Health and Welfare
CHAPTER 77- Energy Conservation
SUBCHAPTER III - Improving Energy Efficiency
PART A-1- Certain Industrial Equipment

Sec. 6317. Energy conservation standards for high-intensity discharge lamps, distribution transformers, and small electric motors

(a) High-intensity discharge lamps and distribution transformers

(1) The Secretary shall, within 30 months after October 24, 1992, prescribe testing requirements for those high-intensity discharge lamps and distribution transformers for which the Secretary makes a determination that energy conservation standards would be technologically feasible and economically justified, and would result in significant energy savings.

(2) The Secretary shall, within 18 months after the date on which testing requirements are prescribed by the Secretary pursuant to paragraph (1), prescribe, by rule, energy conservation standards for those high-intensity discharge lamps and distribution transformers for which the Secretary prescribed testing requirements under paragraph (1).

49 U.S.C.A. § 32902(f)

TITLE 49 - Transportation
SUBTITLE VI - Motor Vehicle and Driver Programs
PART C - Information, Standards, and Requirements
CHAPTER 329 - Automobile Fuel Economy

Sec 329029(f)

Considerations on decisions on maximum feasible average fuel economy.--When deciding maximum feasible average fuel economy under this section, the Secretary of Transportation shall consider technological feasibility, economic practicability, the effect of other motor vehicle standards of the Government on fuel economy, and the need of the United States to conserve energy.

Title 40 - Protection of Environment
Chapter V - Council on Environmental Quality
Part 1500. Purpose, Policy, and Mandate

Sec. 1500.1 - Purpose.

(a) The National Environmental Policy Act (NEPA) is our basic national charter for protection of the environment. It establishes policy, sets goals (section 101), and provides means (section 102) for carrying out the policy. Section 102(2) contains "action-forcing" provisions to make sure that federal agencies act according to the letter and spirit of the Act. The regulations that follow implement section 102(2). Their purpose is to tell federal agencies what they must do to comply with the procedures and achieve the goals of the Act. The President, the federal agencies, and the courts share responsibility for enforcing the Act so as to achieve the substantive requirements of section 101.

(b) NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA. Most important, NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail.

(c) Ultimately, of course, it is not better documents but better decisions that count. NEPA's purpose is not to generate paperwork--even excellent paperwork-- but to foster excellent action. The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment. These regulations provide the direction to achieve this purpose.

SOURCE: 43 FR 55990, Nov. 28, 1978, unless otherwise noted.

AUTHORITY: NEPA, the Environmental Quality Improvement Act of 1970, as amended (42 U.S.C. 4371 et seq.), sec. 309 of the Clean Air Act, as amended (42 U.S.C. 7609) and Executive Order 11514, Mar. 5, 1970, as amended by Executive Order 11991, May 24, 1977).

Title 40 - Protection of Environment
Chapter V - Council on Environmental Quality
Part 1500 - Purpose, Policy, and Mandate

Sec. 1500.2 Policy.

Federal agencies shall to the fullest extent possible:

(a) Interpret and administer the policies, regulations, and public laws of the United States in accordance with the policies set forth in the Act and in these regulations.

(b) Implement procedures to make the NEPA process more useful to decisionmakers and the public; to reduce paperwork and the accumulation of extraneous background data; and to emphasize real environmental issues and alternatives. Environmental impact statements shall be concise, clear, and to the point, and shall be supported by evidence that agencies have made the necessary environmental analyses.

(c) Integrate the requirements of NEPA with other planning and environmental review procedures required by law or by agency practice so that all such procedures run concurrently rather than consecutively.

(d) Encourage and facilitate public involvement in decisions which affect the quality of the human environment.

(e) Use the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment.

(f) Use all practicable means, consistent with the requirements of the Act and other essential considerations of national policy, to restore and enhance the quality of the human environment and avoid or minimize any possible adverse effects of their actions upon the quality of the human environment.

SOURCE: 43 FR 55990, Nov. 28, 1978, unless otherwise noted.

AUTHORITY: NEPA, the Environmental Quality Improvement Act of 1970, as amended (42 U.S.C. 4371 et seq.), sec. 309 of the Clean Air Act, as amended (42 U.S.C. 7609) and Executive Order 11514, Mar. 5, 1970, as amended by Executive Order 11991, May 24, 1977).

40 C. F. R. § 1500.2, **40 CFR § 1500.2**

Title 40 - Protection of Environment
Chapter V - Council on Environmental Quality
Part 1502 - Environmental Impact Statement

Sec. 1502.1 Purpose.

The primary purpose of an environmental impact statement is to serve as an action-forcing device to insure that the policies and goals defined in the Act are infused into the ongoing programs and actions of the Federal Government. It shall provide full and fair discussion of significant environmental impacts and shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment. Agencies shall focus on significant environmental issues and alternatives and shall reduce paperwork and the accumulation of extraneous background data. Statements shall be concise, clear, and to the point, and shall be supported by evidence that the agency has made the necessary environmental analyses. An environmental impact statement is more than a disclosure document. It shall be used by Federal officials in conjunction with other relevant material to plan actions and make decisions.

Title 40. Protection of Environment
Chapter V. Council on Environmental Quality
Part 1502. Environmental Impact Statement

Sec. 1502.8 Writing.

Environmental impact statements shall be written in plain language and may use appropriate graphics so that decisionmakers and the public can readily understand them. Agencies should employ writers of clear prose or editors to write, review, or edit statements, which will be based upon the analysis and supporting data from the natural and social sciences and the environmental design arts.

SOURCE: 43 FR 55994, Nov. 29, 1978, unless otherwise noted.

AUTHORITY: NEPA, the Environmental Quality Improvement Act of 1970, as amended (42 U.S.C. 4371 et seq.), Sec. 309 of the Clean Air Act, as amended (42 U.S.C. 7609), and Executive Order 11514 (Mar. 5, 1970, as amended by Executive Order 11991, May 24, 1977).

Title 40 - Protection of Environment
Chapter V - Council on Environmental Quality
Part 1508. Terminology and Index

Sec. 1508.7 Cumulative impact.

Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

40 C. F. R. § 1508.7, 40 CFR § 1508.7

Title 40 - Protection of Environment
Chapter V - Council on Environmental Quality
Part 1508 - Terminology and Index

1508.9

Sec. 1508.9 Environmental assessment.

Environmental Assessment:

(a) Means a concise public document for which a Federal agency is responsible that serves to:

(1) Briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact.

(2) Aid an agency's compliance with the Act when no environmental impact statement is necessary.

(3) Facilitate preparation of a statement when one is necessary.

(b) Shall include brief discussions of the need for the proposal, of alternatives as required by section 102(2)(E), of the environmental impacts of the proposed action and alternatives, and a listing of agencies and persons consulted.

40 C. F. R. § 1508.9, 40 CFR §

Title 40 - Protection of Environment
Chapter V - Council on Environmental Quality
Part 1508 - Terminology and Index

Sec. 1508.27 Significantly.

Significantly as used in NEPA requires considerations of both context and intensity:

(a) Context. This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant.

(b) Intensity. This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following should be considered in evaluating intensity:

(1) Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.

(2) The degree to which the proposed action affects public health or safety.

(3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

(4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.

(5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

(6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

(7) Whether the action is related to other actions with individually insignificant but cumulatively

significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

(8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

(9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

(10) Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

[43 FR 56003, Nov. 29, 1978; 44 FR 874, Jan. 3, 1979]