Consolidated Cases Nos.
06-71891, 06-72317, 06-72641, 06-72694, 06-73807 and 06-73826

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

CENTER FOR BIOLOGICAL DIVERSITY, *et al.*,

Petitioners,

v.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, *et al.*,

Respondents.

OPENING BRIEF OF PUBLIC INTEREST PETITIONERS ON NATIONAL ENVIRONMENTAL POLICY ACT ISSUE

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STATEMENT OF JURISDICTION

This Court has original jurisdiction pursuant to 49 U.S.C. § 32909 and Rule 15 of the Federal Rules of Appellate Procedure to review the final rule of the National Highway Traffic Safety Administration entitled "Average Fuel Economy Standards for Light Trucks, Model Years 2008-2011," which sets the Corporate Average Fuel Economy ("CAFE") standard for light trucks (hereafter "Challenged Rule"). The Challenged Rule has been published at 71 Fed. Reg. 17,566 (April 6, 2006), to be codified at 49 C.F.R. Chapter V, sections 523.2, 523.5 and 533.5.

Petitioners Center for Biological Diversity, Sierra Club, Public Citizen, Environmental Defense, and Natural Resources Defense Council ("public interest Petitioners") timely filed petitions for review of this rule, which were consolidated, along with Petitions from the States of California, Connecticut, Maine, Massachusetts, New Jersey, New Mexico, New York, Oregon, Rhode Island, Vermont, the District of Columbia, the City of New York, and Minnesota ("State Petitioners"). Venue is proper in this Circuit because the Center for Biological Diversity and other Petitioners reside in this Circuit.

Petitioners have established standing in the declarations filed along with the opening briefs. Hunt v. Washington State Advertising Commission, 432 U.S. 333 (1977). As set forth in these declarations and in the record, the interests of

Petitioners' members are harmed by the Challenged Rule, and this harm will be redressed by an order from this Court directing NHTSA to correct its violations.

STATEMENT OF ISSUES

(1) Did NHTSA violate NEPA by relying upon an Environmental Assessment that failed to adequately address the greenhouse gas and global warming implications of the Challenged Rule, including the cumulative impacts, and failing to consider a reasonable range of alternatives prior to the agency's final action?

(2) Did NHTSA violate NEPA by failing to prepare an Environmental Impact Statement on the impacts of the Challenged Rule, which represented the first major overhaul of the CAFE regulatory system in three decades?

STATEMENT OF THE CASE

These consolidated Petitions for Review challenge the legality of the National Highway Traffic Safety Administration's ("NHTSA") first major overhaul of the fuel economy regulatory program for "light trucks" since the program's inception in 1979.[1] During the intervening years, the number of light

[1] Pursuant to this Court's prior case management order, public interest Petitioners are filing two coordinated briefs: this NEPA brief and the Opening Brief of Public Interest Petitioners on Energy Policy Conservation Act Issues ("EPCA Br.").

trucks on the road (defined to include most SUVs, passenger vans, and pick-up trucks), both in absolute terms and as a relative percentage of the overall U.S. automobile fleet, has skyrocketed. At the same time, we have come to understand that global warming represents an unprecedented threat to human well-being, posing arguably the most significant societal challenge of our time. These two phenomena – the dramatic rise in light truck use and the rapid acceleration of worldwide climate change – are inextricably linked by the fact that light trucks are a significant source of the greenhouse gases that cause global warming, especially carbon dioxide ("CO_2"). Indeed, the vehicles covered by the Challenged Rule (model years 2008-2011) alone will emit approximately 2.8 billion metric tons of CO_2 during their lifetimes. Petitioners' Consolidated Excerpts of Record ("ER") at 1355. By taking these emissions seriously in its standard-setting process, NHTSA could have emerged as a leader in the search for solutions to the biggest crisis of this generation. Instead, it chose to hide behind a game of semantics and avoid the issue entirely.

Climate science tells us that human society is standing at the precipice of a global climate change catastrophe. For decades, the industrialized world marched

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Public interest Petitioners also stand with the State Petitioners and support and incorporate their brief in its entirety ("States Br."). All Petitioners have filed a consolidated Excerpts of Record.

blindly forward, ignorant of the accumulating danger posed by greenhouse gas emissions. We now know differently. We now know that "business as usual" will lead us inexorably over the edge of the cliff – to vast ecological destruction and massive human dislocation. Only innovative approaches to energy production and consumption can change that course. As a key federal agency with direct (and its mind, exclusive) regulatory authority over the nation's mammoth automobile fleet, NHTSA is perfectly positioned to take up this challenge. Yet in overhauling the CAFE program through the Challenged Rule, NHTSA squandered a golden opportunity to truly reform the light truck fuel economy standards and thus begin the long journey back from the brink. More frustrating still, NHTSA chose to move us one step closer to the edge with the blindfold firmly in place, refusing to give meaningful consideration to global warming impacts or potential alternative strategies.

NHTSA's conduct is not only morally problematic, but also legally flawed. The National Environmental Policy Act ("NEPA"), 42 U.S.C. §4321 et seq., requires the preparation of a full environmental impacts statement ("EIS") for all major federal actions significantly affecting the human environment. It is hard to imagine a federal action that is more significant to the problem of global warming and the future of humanity than one which dictates fuel consumption standards –

and thereby affects greenhouse gas emissions – for millions of the nation's most polluting vehicles. Yet NHTSA refused to prepare an EIS for the Challenged Rule or even to spend more than a few pages on the subject of greenhouse gas impacts in its short Environmental Assessment ("EA").

NHTSA offers essentially two unpersuasive explanations for its very conscious decision to ignore global warming impacts and consequences. First, it claims that the incremental change in greenhouse gas emissions under the Challenged Rule, as compared with projected emissions over the same period under the previously adopted rule, will be "very small" relative to overall emissions and slightly positive because the new rule will slow the rate of emissions increase. ER 1478. But NHTSA's NEPA obligations are not limited to assessing the relative risks of different regulatory strategies. Federal agencies must evaluate the incremental impact of their proposed actions when added to all past (and foreseeable future) impacts on the same resource. For instance, an agency whose action might tip an already-endangered species to extinction could not avoid addressing that fact simply because the incremental effects of its proposed action are small relative to the historic insults that cumulatively placed the species in harm's way. So too here, where the billions of tons of greenhouse gas emissions allowed by the Challenged Rule, when added to past and projected future

emissions, could very well tip the earth's precarious balance into global meltdown. As explained below, the environmental and human consequences of that scenario are staggering. NHTSA should not be allowed to sweep them under the rug by pretending that incremental motor vehicle emissions are somehow not relevant to the emerging dialogue over how we can avoid climate catastrophe.

Second, NHTSA refused to consider alternative fuel economy standards, other than minor variations on a single proposal, that might put us on the path to actual greenhouse gas reductions, claiming that such alternatives "would not be consistent with the statutory criteria of" the Energy Policy Conservation Act ("EPCA"), Pub. L. 94-163, 89 Stat. 871 (1975), the authority under which the automobile fuel economy program is administered. ER 1478. NHTSA's refusal to consider other, technologically viable options, however, stems not from any actual inconsistency with EPCA, but from the way the agency has chosen to implement that statute – through application of an "analytical" cost-benefit model that ignores environmental externalities like global climate change.

Indeed, EPCA openly contemplates the very concerns that Petitioners raise here. Passed in the wake of the 1973-1974 oil embargo, EPCA was intended "to conserve energy supplies through energy conservation programs, and, where necessary, the regulation of certain energy uses" and "to provide for improved

energy efficiency of motor vehicles." 42 U.S.C. § 6201. To achieve these objectives, the statute requires that the Secretary of Transportation (acting through NHTSA) promulgate regulations establishing "maximum feasible average fuel economy" standards for non-passenger automobiles. 49 U.S.C. § 32902(a). In setting these standards, the Secretary must 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." Id. § 32902(f). Thus, maximum feasibility under the statute is a function not only of technology and economics, but also of the nation's increasingly urgent need for energy conservation. The need to conserve energy is driven, in no small part, by the potentially disastrous climate change consequences of our present energy consumption patterns. Thus, nothing in EPCA itself suggests that environmental consequences should be ignored in setting CAFE standards. To the contrary, the statute embraces energy conservation, and its attendant environmental benefits, as a co-equal factor in the decision process.

In short, NHTSA made two striking legal errors that go to the very heart of its environmental review and disclosure obligations under NEPA. By formulaically applying the results of its analytical cost-benefit model before considering global warming issues, NHTSA unreasonably shrunk the universe of

regulatory options. It then utilized this overly-narrow range of alternatives to justify avoiding any meaningful scrutiny of greenhouse gas emissions and their impacts. NHTSA thus isolated environmental considerations from the standard-setting determination, when NEPA commands just the opposite, and grafted a post hoc environmental assessment onto the end of an EPCA rulemaking process whose outcome was already predetermined. These actions plainly violated the letter and the spirit of NEPA and are, therefore, actionable under the Administrative Procedure Act ("APA"), 5 U.S.C. § 706(2)(A).

STATEMENT OF FACTS

The National Environmental Policy Act

NEPA is the "basic national charter for protection of the environment." 40 C.F.R. § 1500.1(a); Center for Biological Diversity v. U.S. Forest Service, 349 F.3d 1157, 1166 (9th Cir. 2001). Congress cast the statute as a landmark national effort to "encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation." 42 U.S.C. § 4321.

To accomplish these goals, all federal agencies must assess the

environmental impacts of their proposals before taking any action on them. This analysis begins with the preparation of an Environmental Assessment ("EA") to determine whether the action may have a significant effect on the environment. Salmon River Concerned Citizens v. Robertson, 32 F.3d 1346, 1356 (9th Cir. 1994); 40 C.F.R. §§ 1501.4, 1508.9. If the EA establishes that the proposal will not have a significant impact, the agency must issue a Finding of No Significant Impact ("FONSI"), "accompanied by a 'convincing statement of reasons' to explain why [the action's] impacts are insignificant." National Parks & Conservation Ass'n v. Babbitt, 241 F.3d 722, 736 (9th Cir. 2001); Blue Mountains Biodiversity Project v. Blackwood, 161 F.3d 1208, 1212 (9th Cir. 1998). On the other hand, if the EA raises "substantial questions" as to whether the action may have a significant impact on the environment, the agency must proceed to the preparation of a full EIS. National Parks, 241 F.3d at 730; Foundation for North American Wild Sheep v. U.S. Dep't of Agriculture, 681 F.2d 1172, 1178 (9th Cir. 1982) ("A determination that effects on the human environment will in fact occur is not essential" to trigger the EIS requirement.). That document must "provide full and fair discussion" of impacts like greenhouse gas emissions and their global warming implications and must "inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize" these impacts. 40 C.F.R.

§ 1502.1.

The purpose of the NEPA review process is two-fold: "First, it places upon [the action] agency the obligation to consider every significant aspect of the environmental impact of a proposed action. Second, it ensures that the agency will inform the public that it has indeed considered environmental concerns in its decisionmaking process." Kern v. United States Bureau of Land Management, 284 F.3d 1062, 1066 (9th Cir. 2002). See also Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 349 (1989) (NEPA "ensures that the agency, in reaching its decision, 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 audience that may also play a role in both the decisionmaking process and the implementation of that decision."); Idaho Sporting Congress v. Thomas, 137 F.3d 1146, 1149 (9th Cir. 1997) (same); Columbia Basin Protection Ass'n v. Schlesinger, 643 F.2d 585, 592 (9th Cir. 1981) ("[T]he preparation of an EIS ensures that other officials, Congress, and the public can evaluate the environmental consequences independently.").

These dual objectives require that environmental information be disseminated "early enough so that it can serve practically as an important contribution to the decisionmaking and will not be used to rationalize or justify

decisions already made." 40 C.F.R. § 1502.5. See also Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 371 (1989); Metcalf v. Daley, 214 F.3d 1135, 1143-44 (9th Cir. 2000). Ultimately, an EIS does not satisfy NEPA unless "its form, content, and preparation substantially (1) provide decision-makers with an environmental disclosure sufficiently detailed to aid in the substantive decision whether to proceed with the project in light of its environmental consequences, and (2) make available to the public, information of the proposed project's environmental impacts and encourage participation in the development of that information." Trout Unlimited v. Morton, 509 F.2d 1276, 1283 (9th Cir. 1974).

The Proposed CAFE Rule and Draft Environmental Assessment

NHTSA published a Proposed Rule setting forth proposed fuel economy standards for light truck model years 2008-2011 on August 30, 2005. ER 28. The Proposed Rule described an overhaul of the CAFE regulatory structure and proposed two alternate sets of fuel economy standards for light truck model years 2008-2011, one developed under the traditional ("unreformed") CAFE program and the other under the so-called "reformed" CAFE program.[2] The proposed "unreformed" standards would increase fuel economy very slightly, from 22.2

[2] For a fuller discussion of the unreformed and reformed CAFE programs, see EPCA Brief at 17-19.

miles per gallon ("mpg") in 2007 to 22.5 mpg for 2008, 23.1 mpg for 2009, and 23.5 mpg for 2010. ER 31. The proposed "reformed" standards do not mandate a single fuel economy level for each model year, but instead set forth a range of fuel economy levels for each of six categories of vehicle "footprint," such that smaller vehicles would have to comply with stricter standards than larger vehicles. Id.

The 35-page Draft Environmental Assessment ("Draft EA") released with the Proposed Rule was extraordinarily cursory. It devoted less than one-half of a page to greenhouse gas emissions in its discussion of the affected environment. ER 282. The Draft EA contained figures in a chart indicating that lifetime CO_2 emissions of the vehicles to be regulated under the rule (2008-2011 model years) would be approximately 1.3 billion metric tons, but did not contain any discussion of the origins or environmental consequences of these greenhouse gas emissions. ER 296. Similarly, the Draft EA stated that the cumulative CO_2 emissions would be approximately 1.9 billion metric tons, but again did not discuss the consequences of this number. ER 298. Finally, the Draft EA analyzed a "range" of alternatives that was not a range at all, but rather a single regulatory proposal pre-selected by NHTSA and one very minor variation of the same proposal. ER 278. Overall, the information in the Draft EA was wholly insufficient to inform a reader about the greenhouse gas emissions and global warming consequences of

the rulemaking.

Petitioners's Comments and Submission of Substantial Scientific Evidence.

The transportation sector is the second largest and fastest growing portion of U.S. greenhouse gas emissions. ER 1517. Because emissions from light trucks alone make up eight percent of annual U.S. greenhouse gas emissions, setting fuel economy standards for light trucks is one of the most important decisions impacting overall emissions levels. ER 1348. For this reason, Petitioners' comments on the Draft EA strongly urged NHTSA to fully consider the greenhouse gas and global warming implications of its decision. See, e.g., ER 334; 329-331. In addition, Petitioners submitted some of the most authoritative literature on global warming for NHTSA's consideration. See, e.g., ER 353, 417, 559, 630, 639, 642, 709, 713, 717. These submissions, as summarized briefly below, presented an irrefutable case for NHTSA to fully consider global warming and the greenhouse gas emissions of the regulated vehicles.

The basic physics underlying global warming are as well established as any phenomena in the planetary sciences. Greenhouse gases absorb radiation that would otherwise be lost to space, and re-radiate it back to the surface of the planet. Greater atmospheric concentrations of greenhouse gases, all other things being equal, cause higher temperatures at the surface of the earth. ER 356-7. The

Intergovernmental Panel on Climate Change's ("IPCC") "Third Assessment Report," released in 2001, is the latest in a series of reports that have become the standard works of reference in the climate change field. The Third Assessment Report presented the consensus view of literally hundreds of scientists on numerous key issues, including the following:

(1) Over the last two centuries, it is virtually certain that human activities have increased amounts of carbon dioxide (CO_2) in the atmosphere to levels not seen in 420,000 years, and likely not seen for 20 million years. ER 371.

(2) The average temperature at the surface of the earth has increased by about 0.6° C (1° F) since 1861 (ER 358), snow and ice cover have decreased (ER 362), global average sea level rose between 10 and 20 cm during the 20th century (ER 363), and there is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities. ER 393.

(3) The changes observed so far are only the beginning of what is to come. The IPCC has developed a range of emissions scenarios as the basis for its predictions, which assume differing levels of population and economic growth, technological innovation, and other factors which will influence overall greenhouse gas emissions. ER 394. Based on this range of possible scenarios, and results from the world's leading climate models, the IPCC predicts that the

globally averaged surface temperature will increase by 1.4 to 5.8° C (2.5 to 10.4° F) and sea level will rise between 10 and 90 cm in this century. ER 401, 407. The more greenhouse gases are emitted into the atmosphere, the more warming will occur.

Since the release of the Third Assessment Report in 2001, the scientific understanding of global warming and our ability to predict its impacts has improved. As this understanding has advanced, so too has the urgency of the warnings from scientists about the consequences of our greenhouse gas emissions. Entire ecosystems and human ways of life are at risk. ER 717. Average Arctic temperatures have risen at almost twice the rate as the rest of the world in recent decades, with average winter temperature in parts of Alaska up 3-4° C (5-7° F) in just the past 50 years. ER 720. In the next century, winter temperatures over the Arctic oceans may increase by up to 10° C (18° F). Id. As temperatures go up in the Arctic, sea ice is rapidly disappearing. ER 721, 630-1. If current rates of decline in sea ice continue, the Arctic could be ice-free in the summer well before the end of this century, a state the Arctic has not witnessed for at least a million years. ER 630, 639.

These changes will have catastrophic implications for Arctic ecosystems and peoples. "Polar bears are unlikely to survive as a species if there is an almost

complete loss of summer sea-ice cover . . . The loss of polar bears is likely to have significant and rapid consequences for the ecosystems that they currently occupy." ER 724. Many Arctic peoples, such as the Inuit, who rely upon hunting for their primary food supply, are suffering from these changes, as well as from a reduction in weather predictability and travel safety, and face "serious challenges to human health and food security, and possibly even the survival of some cultures." ER 725. Some communities and industrial facilities in coastal zones are already being forced to relocate due to severe coastal erosion as rising sea level and a reduction in sea ice allow higher waves and storm surges to reach the shore. ER 726.

The severe impacts in the Arctic are a harbinger of what is to come for the rest of the world if greenhouse gas emissions are not sharply curtailed, and many impacts are already becoming apparent on a global scale. Scientists have found convincing evidence that the 20th century anthropogenic global warming has affected plants and animals around the world. ER 665. Studies have found that more than half of species surveyed are already experiencing changes: for example, birds in Arizona are laying their eggs 10 days earlier in the spring, and plants in Washington, D.C. are flowering 4.5 days earlier. ER 666, 672.

Global warming represents the most significant and pervasive threat to the future of biodiversity worldwide, affecting both terrestrial and marine species from

the tropics to the poles. Peer-reviewed studies have concluded that 35 percent of species could be committed to extinction by the year 2050 if current emissions trajectories continue and that these extinctions could be significantly reduced if greenhouse gas emissions fall. ER 709; Declaration of Chris E. Thomas ("Thomas Dec.").

The impacts to biological diversity go hand-in-hand with the impacts to human society. The World Health Organization estimates that as of the year 2000, 154,000 lives are already lost annually due to global warming. ER 716. Experts predict a number of profound consequences for human health if worldwide greenhouse gas emissions continue on current trajectories. ER 423. Predictions include an increase in diseases such as malaria (ER 456), West Nile Virus (ER 461), and Lyme disease (ER 463), as well as an increase in pollen production, allergies, and allergic diseases such as asthma. ER 465-6.

Deaths from factors like dehydration and heat stroke associated with more frequent heat waves are projected to triple in many urban centers in the U.S. ER 473. "With the likelihood of [extreme heat waves] projected to increase 100-fold over the next four decades, it is difficult to avoid the conclusion that potentially dangerous anthropogenic interference with the climate system is already underway . . . by the end of this century 2003 [in which between 22,000 and 35,000

Europeans died in heat waves] would be classed as an unusually cold summer." ER 471. Damage to humans and infrastructure from floods is also predicted to increase. ER 480.

Scientists have long predicted increasing weather variability and heightened intensity of storms like hurricanes due to increasing ocean temperatures. ER 421. Extreme weather events have in fact increased, with catastrophic results, both in loss of lives and in economic costs. ER 423, 439. Global weather-related losses from extreme events have increased dramatically since the 1950s, measured in 2004 U.S. dollars. ER 439. "While no one event is diagnostic of climate change, the relentless pace of unusually severe weather since 2001 – prolonged droughts, heat waves of extraordinary intensity, violent windstorms and more frequent '100 year' floods – is descriptive of a changing climate." ER 421.

One of the most troubling recent findings is that the 2001 IPCC projection for sea level rise is almost certainly a significant underestimate. Melting of the Greenland ice sheet has accelerated far beyond what scientists predicted even just a few years ago, with melting in 2004 occurring at 10 times the rates observed in 2000. ER 435; 722. Sea level rise in line with these underestimates would still inundate substantial areas of the coast and have far-reaching consequences. ER 722 (map of Florida with 100 cm sea level rise). Yet just 2-3°C of additional

warming would likely cause sea level to rise by at least 18 feet (6 m) within a century, and would flood vast areas and displace millions of people. Declaration of James E. Hansen ("Hansen Dec.") at ¶ 57, Figures 26-27.

Not surprisingly, the economic costs of global warming will be astronomical. Many studies quantifying the costs have been published, but none have included all of the true costs of global warming, such as species extinction and the increased intensity of tropical storms. ER 183, 1167. Despite this limitation, it is possible to estimate a subset of the costs from greenhouse gas emissions, usually expressed as the net cost of each additional ton of carbon or carbon dioxide emitted into the atmosphere.[3] Estimates in the record range from $50 per ton of carbon (National Academy of Sciences, ER 184) to $59 per ton (California Energy Commission, ER 305) to well over $96 per ton (British government, ER 1151, 1173).

The science of global warming is now sufficiently well understood that experts can accurately predict future change from continued greenhouse gas emissions. Dr. James E. Hansen, Director of the NASA Goddard Institute for Space Studies, has stated: "In my opinion there is no significant doubt (probability > 99%) that . . . additional global warming of 2°C would push the earth beyond the

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[3] One ton of carbon is equivalent to 3.664 tons of CO_2.

tipping point and cause dramatic climate impacts including eventual sea level rise of at least several meters, extermination of a substantial fraction of the animal and plant species on the planet, and major regional climate disruptions." Hansen Dec. at ¶ 81.

In order to limit future temperature increases to below 2°C, society must follow the "alternative," rather than the "business as usual," greenhouse gas emissions scenario. Hansen Dec. at ¶ ¶ 29-31, 67-71. In the business as usual scenario, CO_2 emissions continue to grow at about two percent per year. Hansen Dec. ¶ 28. In the alternative scenario, by contrast, CO_2 emissions decline moderately between now and 2050, and much more steeply after 2050, so that atmospheric CO_2 never exceeds 475 parts per million. Hansen Dec. ¶ 29. The alternative scenario would limit global warming to less than 1°C in this century. Hansen Dec. ¶ 31. However, CO_2 emissions have continued to increase by two persent per year since 2000. Hansen Dec. ¶ 31. If this growth continues for just ten more years, the 35 percent increase in CO_2 emissions between 2000 and 2015 will make it implausible to achieve the alternative scenario. Hansen Dec. ¶ 31. Moreover, the "tripwire between keeping global warming at less than 1°C, as opposed to having a warming that approaches the range of 2-3°C, may depend upon a relatively small difference" in anthropogenic greenhouse gas emissions.

Hansen Dec. ¶ 39. This is so because warming of greater than 1°C may induce positive climate feedbacks, such as the release of large amounts of methane from thawing arctic permafrost, that will further amplify the warming. Hansen Dec. ¶ 39.

Just ten more years on current greenhouse gas emissions trajectories will commit us to "large-scale disastrous climate impacts for humans as well as for other inhabitants of the planet." Hansen Dec. ¶ 31, 38. The U.S. produces nearly one quarter of worldwide greenhouse gas emissions, and vehicle emissions are the second largest and most rapidly growing source of CO_2 emissions in the U.S. Hansen Dec. ¶ 74; ER 1517. Reducing U.S. vehicle emissions is, therefore, an essential part of any plan to avoid the worst impacts of global warming. NHTSA's CAFE standards would not put us on track to achieving reductions, but would allow oil demand, and emissions, to continue to grow rapidly. See ER 793, Figure 1.

The Final Environmental Assessment and Challenged Rule

NHTSA issued the Challenged Rule setting fuel economy standards for light truck model years 2008-2011 on March 29, 2006. ER 1372. The Challenged Rule adopted the "Reformed" CAFE standards with a three year "transition period," during which car manufacturers have the choice of complying with the reformed or

unreformed standards. The final regulation does not ensure a minimum level of fuel economy,[4] and therefore it is possible that fuel economy for model years 2008-2010 could be lower than the least stringent alternative evaluated. ER 62, 1342.

Despite the wealth of extraordinarily authoritative and alarming information submitted to NHTSA regarding greenhouse gas emissions and global warming, the agency again failed to conduct any meaningful analysis of these issues in the Final EA or Challenged Rule, or even to disclose the most basic information relating to the problem. The Final EA contains a few boilerplate paragraphs describing global warming (ER 1347-8), but no actual analysis of the direct or cumulative impacts of the greenhouse gas emissions from the regulated vehicles. The document reports approximately 2.8 billion metric tons of CO_2 as the lifetime emissions of the regulated vehicles – a more than doubling of the same statistic provided in the Draft EA, without explanation. Cf. ER 293 and ER 1355. The Final EA identified the cumulative impacts as approximately 5.16 billion metric tons of CO_2 – again, over twice that disclosed in the Draft EA – but fails to discuss the ramifications of this number. Cf. ER 296 and ER 1361. NHTSA also refused to consider a reasonable range of more stringent fuel economy standards. Thus, the Final EA, like the Draft EA, did not contain information sufficient to inform a reader of the

[4] For a fuller description of the Challenged Rule, see EPCA Br. 16-20.

true environmental consequences of NHTSA's action.

SUMMARY OF ARGUMENT

The NEPA analysis for the Challenged Rule begins with the fundamentally flawed and misleading premise that greenhouse gas emissions will decrease as a result of the rulemaking. This simply is not true. On a year-by-year basis going forward, greenhouse gas emissions from the vehicles covered by the Challenged Rule will increase over time, albeit at a slightly lower rate of growth than would otherwise occur under the existing CAFE standards put into place for model years 2005-2007. This increase is attributable to the twin facts that (i) the number of light trucks on the road will continue to rise and (ii) the average number of miles driven by each vehicle also will rise, such that even slightly higher fuel economy standards for each subsequent model year of these vehicles will not offset the increase in total emissions. Thus, the Challenged Rule will result in a net annual increase in greenhouse gas emissions from light trucks.

By erroneously casting an absolute increase in emissions as a relative reduction in emissions, NHTSA inappropriately dismissed the question of greenhouse gas and global warming impacts as trivial. But light trucks are hardly insignificant. They now make up roughly 50 percent of new manufactured passenger vehicles and presently account for 8 percent of all U.S. greenhouse gas

emissions. Because the United States is responsible for approximately one-quarter of worldwide greenhouse gas emissions, light truck fuel efficiencies, and the resulting CO_2 pollution loading to the atmosphere, play a significant role in global warming.

Accordingly, NHTSA should have addressed the true environmental implications of pouring nearly 3 billion metric tons of new CO_2 pollution into an already carbon-saturated atmosphere. It should have evaluated technologically feasible alternatives that would significantly increase fuel economy standards and thereby significantly reduce greenhouse gas emission from light trucks. It should have disclosed the results of these analyses to the public and integrated them into its EPCA decision process. But NHTSA did none of these things. Instead, it held steadfastly to its fictional account that greenhouse gas emissions will actually decrease as a result of the rule and, therefore, need not be considered further in the NEPA analysis. That story is not credible, is not supported by the record, and cannot sustain NHTSA's decision to avoid meaningful environmental review.

STANDARD OF REVIEW

An agency's compliance with NEPA is reviewed pursuant to the Administrative Procedure Act ("APA"), which provides that agency action must be set aside by the reviewing court if it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law," or if the action is found to be "without observance of procedure required by law." 5 U.S.C. § 706(2)(A); Pyramid Lake Paiute Tribe of Indians v. United States Dep't of the Navy, 898 F.2d 1410, 1414 (9th Cir. 1990). Under the APA, reviewing courts must undertake a "thorough, probing, in-depth review" to determine whether the agency's decision is reasonably based on the facts contained in the administrative record and "whether the decision is based on consideration of the relevant factors." Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402, 415-16 (1971). See also Natural Resources Defense Council v. United States Dep't of the Interior, 113 F.3d 1121, 1124 (9th Cir. 1997); Resources, Ltd. v. Robertson, 35 F.3d 1300, 1304 (9th Cir. 1993). The Ninth Circuit has interpreted this standard to mean that the agency "must articulate a rational connection between the facts found and the conclusions made" and has directed courts to examine "the disputed decision's rationale and surrounding circumstances in order to . . . ensure that agency decisions are founded on a reasoned evaluation of the relevant factors." Desert Citizens Against

Pollution v. Bisson, 231 F.3d 1172, 1180 (9th Cir. 2000). An agency decision cannot stand if "the agency has 'relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.'" Pacific Coast Federation of Fishermen's Ass'ns, Inc. v. National Marine Fisheries Serv., 265 F.3d 1028, 1034 (9th Cir. 2001).

Applying this standard to NEPA documents, a court must ensure that the agency took a "hard look" at the impacts of its action by providing "a reasonably thorough discussion of the significant aspects of the probable environmental consequences." Idaho Sporting Congress, 137 F.3d at 1149; Oregon Natural Resources Council v. Lowe, 109 F.3d 521, 526 (9th Cir. 1997); Seattle Audubon Soc'y v. Espy, 998 F.2d 699, 703 (9th Cir. 1993). The court must "carefully review[] the record to ascertain whether the agency decision is founded on a reasoned evaluation 'of the relevant factors,'" Greenpeace Action v. Franklin, 982 F.2d 1342, 1350 (9th Cir. 1992), and make a "pragmatic judgment whether [the NEPA document's] content and preparation foster both informed decision-making and informed public participation." Native Ecosystems Council v. United States Forest Serv., 418 F.3d 953, 960 (9th Cir. 2005).

ARGUMENT

I. THE ENVIRONMENTAL ASSESSMENT IS COMPREHENSIVELY AND FATALLY FLAWED.

A. The Environmental Assessment Fails to Take a "Hard Look" at the Greenhouse Gas Emissions Implications of the Rulemaking.

The National Academy of Sciences Committee charged by Congress with reviewing the CAFE program repeatedly emphasized that greenhouse gas emissions were the primary reason for regulating light trucks, and the most important environmental impact. ER 100, 103 (Recommendation 1), 106. NHTSA was thus required to take a hard look at greenhouse gas issues when it set about overhauling the CAFE program. But even when viewed through the prism of a highly deferential standard of review, the Final EA prepared and relied upon by NHTSA stops far short of the requisite "hard look."[5] The EA simply fails to provide adequate information and analysis of the greenhouse gas emissions resulting from the Challenged Rule. Equally important, the EA fails to address the direct and cumulative effects of those emissions when added to an already carbon-impaired atmosphere. In this way, NHTSA entirely avoids confronting the most

[5] While NHTSA's NEPA violations extend well beyond the agency's inadequate analysis of the Challenged Rule's effects on greenhouse gas emissions and global warming, Petitioners focus this brief solely on the agency's failures regarding these issues of overriding societal importance.

important issue implicated by its rulemaking – the growing crisis of global warming and the role fuel economy standards can play in furthering that problem or contributing to its solution. The agency's disregard for the law should not be countenanced; the EA must be set aside as arbitrary and capricious.

1. The Environmental Assessment Improperly Evaluated Cumulative Impacts.

NHTSA's failure to meaningfully and adequately address global warming impacts stems largely from its erroneous decision to restrict the NEPA analysis to the incremental difference between greenhouse gas emissions from the proposed 2008-2011 standards and the emissions that would occur if, instead, the previous standards were extended to these same model years.[6] The charade of simply comparing one regulatory regime against another is inconsistent with NEPA, which is about understanding the effects of actions <u>on the environment</u>. Fundamentally, NEPA requires that the environmental analysis evaluate "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. . . Cumulative impacts can result from individually minor but collectively significant

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[6] Inexplicably, NHTSA evaluated direct impacts of the Challenged Rule relative to 2007 standards (ER 1330) and cumulative impacts relative to 2004 standards. ER 1360. In either case, however, this limited incremental analysis ignored the true impacts of the rulemaking.

actions taking place over a period of time." 40 C.F.R. § 1508.7. Thus, a proper analysis in this case would assess the impacts of both past and future actions affecting global warming – including the global warming impacts of the three-decade old light truck CAFE standards program (which have never been analyzed) and the reasonably foreseeable global warming impacts from projected U.S. greenhouse gas emissions in the future – when added together with the impacts from the new rule. The existing cumulative impacts analysis does not come anywhere close to meeting this standard.

a. NHTSA Must Take a "Hard Look" at Past, Present, and Future Greenhouse Gas Emissions.

To satisfy NEPA's general "hard look" standard, the environmental review document must include "both a complete discussion of relevant issues as well as meaningful statements regarding the actual impact of proposed projects," and "a 'full and fair discussion' allowing informed public participation and informed decision-making." Earth Island Institute v. United States Forest Service, 442 F.3d 1147, 1172-73 (9th Cir. 2006). This required "hard look" extends to the cumulative impacts assessment, which must evaluate the accumulating effects from past, present, and reasonably foreseeable projects of a similar nature or having an impact on a common resource. Klamath-Siskiyou Wildlands Center v. Bureau of

Land Management, 387 F.3d 989, 994-95 (9th Cir. 2004); Earth Island Institute v. United States Forest Service, 351 F.3d 1291, 1306 (9th Cir. 2003).

This Court recently summarized the applicable standards against which it reviews the adequacy of a cumulative impacts analysis:

> We have held that "[a] proper consideration of the cumulative impacts of a project requires some quantified or detailed information; general statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided." "The analysis must be more than perfunctory; it must provide a useful analysis of the cumulative impacts of past, present, and future projects." "Defendants must do more than just catalogue 'relevant past projects in the area.'" "[I]n assessing cumulative effects, the Environmental Impact Statement must give a sufficiently detailed catalogue of past, present, and future projects, and provide adequate analysis about how these projects, and difference between the projects, are thought to have impacted the environment."

Great Basin Mine Watch v. Hankins, 456 F.3d 955, 971-72 (9th Cir. 2006) (citations omitted, emphasis in original). These standards apply to EAs as well as EISs. Native Ecosystems Council v. Dombeck, 304 F.3d 886, 895-96 (9th Cir 2002).

This Court has repeatedly rejected NEPA documents that contain insufficiently detailed analyses of past or future cumulative impacts. For example, in Muckleshoot Indian Tribe v. United States Forest Service, 177 F.3d 800, 810 (9th Cir. 1999) (citing City of Carmel-By-The-Sea v. U.S. Dep't of Transportation,

123 F.3d 1142, 1160 (9th Cir. 1997)), the Court found the NEPA analysis inadequate because it did not "analyze the combined effects of the actions in sufficient detail to be 'useful to the decisionmaker in deciding whether, or how, to alter the program to lessen cumulative impacts.'" In Lands Council v. Forester of Region One of the U.S. Forest Serv., 395 F.3d 1019, 1028 (9th Cir. 2005), the Court found that the description of past activities and their resulting environmental harms was not set forth in sufficient detail "to promote an informed assessment of environmental considerations and policy choices by the public and agency personnel." And most recently, in Natural Resources Defense Council v. United States Forest Service, 421 F.3d 797, 814-15 (9th Cir. 2005), the Court held that failure to meaningfully consider past and future impacts from the same type of logging activities violated NEPA. See also Neighbors of Cuddy Mountain v. U.S. Forest Service, 137 F.3d 1372, 1379 (9th Cir. 1998) ("To 'consider' cumulative effects, some quantified or detailed information is required. Without such information, neither the courts nor the public . . . can be assured that the [agency] provided the hard look that it is required to provide.").

b. NHTSA Failed to Identify or Evaluate the Global Warming Problem Created by Past Greenhouse Gas Emissions.

To satisfy these standards, the cumulative impacts analysis for the

Challenged Rule would begin with a description of past and current light truck emissions and then analyze the added impact of emissions from the model year vehicles regulated under the proposed action, as well as emissions forecasted for future model years. All of this information is either readily available or could be estimated by NHTSA. ER 1517-1519. However, the only information NHTSA chose to disclose in the EA with regard to greenhouse gases is that (i) estimated lifetime CO_2 emissions for each subsequent model year will increase under each alternative (for example, lifetime emissions will increase from 689 million metric tons for 2008 vehicles to 695 million metric tons for 2009 vehicles and 700 million metric tons for 2010 vehicles under "Unreformed"Alternative B)[7] and (ii) overall lifetime CO_2 emissions from model years 2005-2011 will be between 4.96 and 5.16 billion metric tons. ER 1361. This disclosure is inadequate in virtually every respect.

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[7] The lifetime CO_2 emissions of vehicles produced in 2011 falls back slightly to 697 million metric tons. A similar reduction is shown for every alternative, including the baseline. The Final EA provides no coherent explanation for this apparent inconsistency. Since the Final EA states that the baseline was obtained by holding fuel economy constant at 22.2 mpg (ER 1334), and since overall vehicle miles traveled are projected to increase by 1.8 percent per year (ER 161, 1344), it is not clear how the lifetime emissions of vehicles manufactured in 2011 could be less than those manufactured in 2010 for the baseline alternative. The lack of clarity and explanatory support for these numbers simply illustrates how truly inadequate the EA is as a public disclosure document.

For example, there is no discussion of past greenhouse gas contributions from the CAFE program, let alone from the broader U.S. transportation sector. This omission allows NHTSA to claim that the proper "baseline" for analysis is the 2007 model year and that, as compared to this baseline, the proposed rule changes will result in an incremental and insignificant improvement in average fuel economy. This approach ignores the cumulative greenhouse gas emissions permitted over the past three decades by NHTSA's own inadequate CAFE program, let alone emissions other significant sources. During this time, total emissions from these vehicles have continued to grow rapidly, and these emissions are one of the single largest contributors to overall U.S. emissions. ER 1515, 1517-1519. NHTSA's decision to analyze only the difference between the application of the previous standard to future model years and adoption of a slightly revised new standards for these same future years effectively freezes past inadequate standards in place and is utterly inconsistent with NEPA's cumulative impacts requirement. NEPA is concerned with how a given action will affect the environment in which the action will be undertaken, not how a proposed action compares with an agency's past practices or with some hypothetical action in a parallel universe.

Moreover, the agency's presentation of its analysis in the Final EA

affirmatively misleads the public and relevant decisionmakers into believing that overall greenhouse gas emissions will decline under the proposed rule, when, in fact, information in the record indicates that total emissions from light trucks will continue to increase, despite slightly better fuel economy standards, because each year there are more vehicles on the road and the average number of miles driven by each vehicle also is increasing. ER 1517, 793. Annual CO_2 emissions from light trucks grew from 1.48 billion metric tons in 1990 to 1.87 billion metric tons in 2004. ER 1519. While the Final EA obliquely acknowledges that this growth will continue (ER 1344), it then concludes that all "alternatives for MY 2009-11 light truck CAFE standards would thus reduce U.S. greenhouse gas emissions" (ER 1358), erroneously suggesting that the new rule will actually result in a decrease in light truck greenhouse gas emissions.

It is true that the Challenged Rule will slow the rate of growth of greenhouse gas emissions from light trucks compared to extending the 2007 fuel economy standard. ER 793. But when the overall problem is increasing, it is profoundly misleading to present a decrease in the rate of the growth of the problem as simply a "reduction." Consider, for example, a hypothetical speeding car and its passengers as they race blindly toward the edge of a high cliff on a dark night. Even if the driver eases up slightly on the accelerator pedal when he realizes the

car is approaching the brink of disaster, the vehicle and its fated passengers will continue hurdling toward their doom. Their only real hope is to throw the engine in reverse. They cannot take solice in merely reducing slightly the speed at which they are moving foward. The same is true – only in a very real and profound way – about the global climate crisis.

Or take another environmental example. For decades, the U.S. Forest Service managed our National Forests with intense and large-scale clearcutting, to the general detriment of forest ecosystems and, not infrequently, with the consequence of pushing individual forest species toward extinction. Evolving science has now demonstrated the folly of these management techniques and the devastation they have already wreaked. Today, the Forest Service cannot simply ignore these past impacts by scaling back its next logging project and labeling that project an "improvement" as compared to past logging activities. Nor can the agency ignore the incremental effect of its next logging project on a species teetering on the verge of extinction simply because that effect will be small relative to all of the past human impacts that led to the species endangerment. As this Court recently admonished the Forest Service:

> Although the agency acknowledged broad environmental harms from prior harvesting, the data disclosed would not aid the public in assessing whether one form or another of harvest would assist the planned forest restoration

> with minimal environmental harm. For the public and agency personnel to adequately evaluate the cumulative effects of past timber harvests, the Final Environmental Impact Statement should have provided adequate data of the time, type, place, and scale of past timber harvests and should have explained in sufficient detail how different project plans and harvest methods affected the environment. The Forest Service did not do this, and NEPA requires otherwise.

Lands Council, 395 F.3d at 1028-29. The same principle applies here.

Greenhouse gas emissions present the classic cumulative impacts problem that NEPA was designed to address. Adding a small amount of greenhouse gases to the atmosphere may be relatively harmless, but adding a very large amount, as society continues to do, is already causing profound change and will result in catastrophic planetary alterations if emissions are not reduced. To facilitate public understanding and truly informed decisionmaking about a large-scale federal program like the CAFE rule, the NEPA analysis must provide the necessary contextual information about global warming as it exists today, against which the incremental impacts of, and potential alternatives to, the proposed action can be properly weighed. A cumulative impacts analysis that begins with the 2005 model year standards, ends with the 2011 model year standards, and focuses entirely on the difference in total fuel consumption between the two, without any serious consideration of increasing emissions or global warming, does not satisfy NEPA's requirement to take a "hard look" at the consequences of the rulemaking.

c. NHTSA Failed to Consider the Cumulative Impact of Present and Forecasted Future Greenhouse Gas Emissions on the Global Warming Problem.

Even if this Court were to accept NHTSA's assertion that the rulemaking will lead to a "reduction" in greenhouse gases, this conclusion does not relieve the agency of its duty to fully analyze the cumulative impacts of emissions from the regulated vehicles. The critical context for NHTSA's decision is the warning from the nation's top climate scientists that if greenhouse gas emissions continue to grow at current rates for even 10 more years, the world will essentially be committed to catastrophic climate impacts. Hansen Dec. at 29, 31, 32, 37-38. To avoid disaster, emissions must stop increasing and actually begin decreasing. Id. at 29, 81-2.

Despite myriad scientific evidence submitted into the record on this issue, NHTSA steadfastly refused to provide an analysis of the rule's impacts on the global warming problem in the Final EA. That refusal is particularly troubling in light of NHTSA's simultaneous assertion that it has sole responsibility and authority for regulating the greenhouse gas emissions from these vehicles and that states cannot impose more stringent controls.[8]

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[8] While Petitioners vigorously disagree with NHTSA's position on preemption, it is nothing short of astonishing that a federal agency charged with protecting public health and safety would simultaneously conclude that (1) its own NEPA document

A fuller understanding of the global warming problem makes one thing clear: It was not sufficient for the EA merely to disclose the total tonnage of CO_2 emissions from the regulated model years and move on. A proper NEPA analysis must include a contextual discussion of how these continued emissions will cumulatively impact the existing climate change situation. Even if NHTSA were actually reducing emissions, the agency still must fully disclose by how much and explain how light truck emissions fit into the overall greenhouse gas picture. Such an analysis would consider not only light truck emissions, but also other major sources of greenhouse gas emissions, including particularly other sources within the transportation sector. The ultimate purpose of NEPA, after all, is to provide decisionmakers and the public with adequate disclosure to allow an informed choice among potential policy options, including the option of requiring more dramatic reductions in light truck emissions.

2. The Environmental Assessment Ignores Important Aspects of the Problem.

In addition to the completely inadequate cumulative impacts analysis, NHTSA did not meet its obligations under NEPA to provide a full and fair analysis

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need not address the biggest environmental challenge of our generation and (2) the states cannot impose any requirements to address this challenge in the complete absence of federal action.

of the Challenged Rule's direct effects. Because, as explained below, the agency did not adequately consider, or even address at all, key aspects of the greenhouse gas and global warming problem, its EA must be deemed legally deficient. Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983) (agency action is normally arbitrary and capricious if the "agency entirely failed to consider an important aspect of the problem").

NHTSA cannot credibly deny that CO_2 emissions from lights trucks regulated by the rule contribute to global warming. The agency must, therefore, address the contribution of those emissions to climate disruption and analyze the impacts of such disruption on the human environment, including impacts to biodiversity, public safety, and human health. Despite voluminous information in the record showing the adverse effects of global warming on these factors, and despite specific requests to consider such information, the Final EA provided no meaningful analysis on these crucial points.[9]

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[9] This omission is all the more egregious because Congress has required, through the Global Change Research Act of 1990 ("GCRA"), the production of a scientific assessment of climate change impacts on the United States, specifically for use by federal agencies, like NHTSA, making decisions that implicate global warming and greenhouse gas emissions. 15 U.S.C. § 2938(b)(2); ER 337-38. Petitioners requested that NHTSA utilize this official scientific assessment in its NEPA review. ER 337-38. NHTSA's response highlights the agency's dismissive attitude towards its environmental review responsibilities: "The GCRA calls for the publication of a study on the effects of global climate changes every four years

For example, the current pace of global warming poses the most profound and pervasive threat to biodiversity that the earth has faced in millions of years. ER 343, 642, 709, 717. Two species of Caribbean corals, the staghorn and elkhorn corals, have already been listed under the Endangered Species Act due in part to rising ocean temperatures from global warming. ER 343, 71 Fed. Reg. 26,852 (May 9, 2006). Other species like the polar bear may shortly be listed because the arctic sea ice on which they live and depend is rapidly melting away. ER 343, 724. Still other already-listed species, such as the Quino checkerspot butterfly, are impacted by global warming because dryer, warmer temperatures cause the species' host plants to die and dry out before the caterpillars hatch and complete the development. Similar species impacts being replicated all over the globe may result in 35 percent of the world's species being committed to extinction by the year 2050. ER 343, 709; Thomas Dec.

Faced with regulating one of the single largest sources of greenhouse gas emissions in the United States, NHTSA abdicated its responsibility to address this issue, or even mention it. The Draft EA contained a single sentence on the topic: "Finally, emissions of criteria pollutants and greenhouse gases could result in

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and to make these research findings available to agencies to use. It does not mandate, however, that Federal agencies rely on the research report." ER 1480.

ozone layer depletion and promote climate change that could affect species and ecosystems." ER 283. Faced with criticism of this patently inadequate treatment of the subject, NHTSA simply deleted this sentence from the Final EA. ER 1350.

NHTSA's consideration of the rule's impact on human health and public safety fared no better. NHTSA acknowledged its duty to consider the impact of the Challenged Rule on human health but then focused – and only briefly – on the criteria air pollutants. ER 1480. The agency simply ignored the health impacts from greenhouse gas emissions and global warming.

Finally, NHTSA also failed to consider the economic costs of the greenhouse gas emissions from the regulated vehicles. Documented information in the record includes marginal cost values for the damage from one ton of carbon emitted into the atmosphere, ranging from a low of $50 per metric ton to well over $96 per ton. ER 183, 1151, 1173. Even using the lowest value of $50 per ton of carbon (which equals $13.6 per ton of CO_2), the vehicles regulated under the Challenged Ruse will result in over $36 billion in damage (2.7 billion metric tons of lifetime CO_2 emissions times $13.6 per ton). Yet those costs are nowhere accounted for in the EA or the Challenged Rule. NHTSA was not free simply to ignore this information or pretend that the economic costs of global warming are zero. NEPA requires analysis of social or economic impacts that are interrelated

with or caused by natural or physical impacts flowing from a major federal action. 40 C.F.R. § 1508.14; Port of Astoria, Oregon v. Hodel, 595 F.2d 467, 476 (9th Cir. 1979).

In sum, despite the critical importance of this major overhaul in the CAFE program to greenhouse gas emissions, and despite Petitioners' explicit request that NHTSA address the rule's impacts on the ever-worsening global warming problem (ER 1479), the agency utterly failed to place its decision in context or provide even the most basic information pertaining to greenhouse gas emissions and global warming. The resulting EA makes a mockery of NEPA's requirement to that the agency provide a "reasoned evaluation of the relevant factors." Desert Citizens Against Pollution v. Bisson, 231 F.3d 1172, 1180 (9th Cir. 2000).

B. The Environmental Assessment Failed to Analyze a Reasonable Range of Alternatives and Instead Conducted an Illegal Post Hoc Analysis of Its Preferred Action.

In addition to avoiding a "hard look" at greenhouse gas emissions and global warming, the Final EA for the Challenged Rule also erred in failing to evaluate an adequate range of alternatives – one of the cornerstone requirements of NEPA. The agency did not approach the decision process in the time-tested NEPA manner whereby the analysis begins with a true array of technologically available options (including here, for example, everything from the status quo to innovative

technologies that are not yet part of the manufacturers' product plans) and then evaluates the environmental, economic, and social costs and benefits associated with each such option. Rather, NHTSA essentially ran the rulemaking process in reverse, preordaining a thin array of choices and delaying the NEPA analysis until later, when it could have no real impact on the outcome. In effect, the NEPA analysis was treated as an afterthought, and the EA was nothing more than a post hoc paper exercise to justify a choice the agency had already made.

1. NHTSA Must Meaningfully Evaluate a Range of Alternatives Commensurate with the Breadth of Its Action.

In order to fulfill its intended role of "sharply defining the issue and providing a clear basis for choice among options by the decisionmaker and the public," a NEPA document must "[r]igorously explore and objectively evaluate all reasonable alternatives." 40 C.F.R. § 1502.14(a). As this Court very recently affirmed, "[a]n EIS must describe and analyze alternatives to the proposed action. Indeed, the alternatives analysis section is the heart of the environmental impact statement. The agency must look at every reasonable alternative within the range dictated by the nature and scope of the proposal. The existence of reasonable but unexamined alternatives renders an EIS inadequate." IlioUlaokalani Coalition v. Rumsfeld, 464 F.3d 1083, 1095 (9th Cir. 2006). See also Muckleshoot, 177 F.3d

at 812-13; Resources Ltd. v. Robertson, 35 F.3d 1300, 1307 (9th Cir. 1994). The analysis of alternatives is not limited to an EIS; an EA also must analyze alternatives. 40 C.F.R. § 1508.9(b).

In determining what constitutes a reasonable range of alternatives, NEPA requires that agencies "take into proper account all possible approaches to a particular project." Alaska Wilderness Recreation & Tourism Ass'n v. Morrison, 67 F.3d 723, 729 (9th Cir. 1995). "An EIS aids the agency's own decisionmaking process by ensuring that the agency has before it 'all possible approaches to a particular project . . . which would alter the environmental impact and the cost-benefit balance.' To be adequate, an environmental impact statement must consider every reasonable alternative . . . . even if an alternative requires 'legislative action' . . ." Northwest Coalition for Alternatives to Pesticides (NCAP) v. Lyng, 844 F.2d 588, 591-92 (9th Cir. 1988). Moreover, "when the proposed action . . . is an integral part of a coordinated plan to deal with a broad problem, the range of alternatives that must be evaluated is broadened." IlioUlaokalani Coalition, 464 F.3d at 1098.

The analysis of real alternatives must come early enough in the process such that it can change the course of agency decisions. "Proper timing is one of NEPA's central themes. An assessment must be 'prepared early enough so that it can serve

practically as an important contribution to the decisionmaking process and will not be used to rationalize or justify decisions already made.'" Save the Yaak, 840 F.2d at 718 (quoting 40 C.F.R. § 1502.5 (1987)); Metcalf v. Daley, 214 F.3d 1135, 1142 (9th Cir. 2000).

2. NHTSA Improperly Narrowed the Range of Alternatives Considered by Excluding Environmental Consequences from Its Consideration of Feasible Choices and Then Undertaking a Post Hoc NEPA Analysis.

Guided by the breath and scope of the CAFE program – intended broadly by Congress to conserve the nation's energy supplies by imposing maximum feasible vehicle fuel economy standards – the Final EA for the Challenged Rule should have considered a similarly broad array of possible alternatives. IlioUlaokalani Coalition, 464 F.3d at 1098. Yet in adopting the first-ever significant overhaul of the program, NHTSA did exactly the opposite. It used non-environmental criteria to narrow the range of potential options and then grafted a post hoc NEPA review onto the back end of the decision process, when environmental considerations could have no practical effect on the outcome. Thus, instead of analyzing a reasonable range of alternatives to inform the agency's decisionmaking, NHTSA impermissibly analyzed only very minor variations of the selected standard. This backwards approach plainly violated the letter and intent of NEPA because very

real environmental considerations, such as greenhouse gas emissions, played virtually no role in the decision process.

There is no real dispute about how NHTSA arrived at the negligible range of alternatives it analyzed. As Petitioners' EPCA brief makes clear, the agency began with the manufacturer's pre-existing product plans for the model years in question and then applied engineering feasibility and economic practicability filters to this baseline. The universe of "feasible" alternatives was thereby narrowed and defined to include only those options where marginal benefits under the NHTSA economic model exceeded marginal costs. EPCA Br. at 18-21.

Notably, inputs into the model did not sufficiently capture environmental concerns or impacts. Even the single largest environmental and social cost associated with the rule – the severe externalities associated with greenhouse gas emissions – was effectively valued by the model at zero. EPCA Br. at 29-34. In all of its complex and confusing modeling analysis, NHTSA never once explained how its process accounted for the nation's need to conserve energy (and the environmental considerations that at least partially underlie that need), which is one of EPCA's express, co-equal statutory factors for establishing "maximum feasible" fuel standards.

NHTSA devotes less than one page of the 113-page final rule to a cursory and patently insufficient discussion of "the nation's need to conserve energy." ER 1451. NHTSA cannot properly analyze this factor without analyzing the environmental impacts of using energy, which NHTSA should have, but did not, analyze in an adequate NEPA document. NHTSA's NEPA violation, therefore, also contributed to its substantive EPCA violation for failing to properly consider the greenhouse gas emissions and other environmental costs in the rulemaking. EPCA Br. at 29-24. As a matter of law, NHTSA cannot be in compliance with EPCA's mandate to consider the "nation's need to conserve energy" without an adequate NEPA analysis of the environmental impacts of the energy use.

The results from this truncated modeling process are hardly surprising. Each and every "feasible" alternative spit out by the model falls within an extremely narrow universe of potential regulatory options. The Final EA identifies and evaluates five alternatives, including the "No Action" alternative, in which the 2007 fuel economy level of 22.2 mpg would be extended through 2011, and four minor variations on the selected proposal. ER 1318. The entire spectrum of alternatives considered in the Final EA ranged from "22.2 to 22.7 mpg for MY 2008, 22.2 to 23.3 mpg for MY 2009, and 22.2 to 23.6 mpg for MY 2010." ER 1342. Equally troubling, the difference between the most polluting alternative,

which would generate 2,840 million metric tons of lifetime CO_2 emissions, and the least polluting alternative considered, which would generate 2,767 metric tons of the same emissions, is minuscule in comparison with overall emissions volumes. ER 1355.

NHTSA itself freely admits that the "the range of impacts from the considered alternatives is very narrow and minimal." ER 1479 (FN 265); ER 1343. The agency made it quite explicit that this outcome resulted directly from the narrowing function of its cost-benefit modeling analysis: "The agency recognizes that numerous alternatives exist, including alternatives with more stringent fuel economy requirements. However, the agency did not analyze these alternatives in the final EA because we determined from our analytical model that they would not be consistent with the statutory criteria of EPCA." ER 1478.

The problem, of course, with NHTSA's approach is that it left no room whatsoever for environmental considerations to inform the ultimate decisional outcome. The kind of environmental concerns that normally emerge from NEPA review did not – and under NHTSA's approach, could not – come into play until after the agency had preselected a narrow range of economically-based alternatives. And by then, it was too late for environmental consequences to affect the choice among available options, so NHTSA largely ignored them.

NHTSA's process effectively stood NEPA on its head and violated the statute's fundamental principle that environmental analysis must be done "at the earliest possible time to insure that planning and decisions reflect environmental values." Andrus v. Sierra Club, 442 U.S. 347, 351 (1979). As this Court has held, NEPA review must be conducted "not as an exercise in form over substance, and not as a subterfuge designed to rationalize a decision already made [or] … to file detailed impact studies which will fill governmental archives." Metcalf v. Daley, 214 F.3d 1135, 1142 (9th Cir. 2000).

II. NHTSA VIOLATED NEPA BY FAILING TO PREPARE AN ENVIRONMENTAL IMPACT STATEMENT.

As the overwhelming weight of the science shows, global climate disruption stands today at a tipping point. Continued indifference to the issue is likely, in the view of the world's most knowledgeable climate scientists, to push us over the edge to global calamity. Dramatic measures to reduce carbon loading to our already-saturated atmosphere must begin immediately if we are to have any real hope of avoiding ecological tragedy and massive human dislocation. Against this backdrop, it is incomprehensible how NHTSA could possibly conclude that a major overhaul of the CAFE regulatory program, which will facilitate the release of billions of tons of greenhouse gases over the next several years, is not a

significant action triggering the preparation of an EIS. Under the relevant NEPA regulations and case law, there simply is no serious question that greenhouse gas emissions resulting from the Challenged Rule will cause significant, indeed profound, impacts to the global commons. NHTSA's failure to prepare an EIS, therefore, was arbitrary and capricious.

NEPA requires agencies to prepare an EIS when they undertake "major federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332 (2)(C). The statute, the regulations, and the case law establish "a relatively low threshold for preparation of an EIS." Natural Resources Defense Council v. Duvall, 777 F. Supp. 1533, 1537 (E.D. Cal. 1991). See also Save the Yaak, 840 F.2d at 717. To prevail, Petitioners need not establish that the CAFE rule will have a significant impact on the environment, but only that there exists a substantial question whether the proposed project may have a significant effect upon the environment. National Parks, 241 F.3d at 730; Idaho Sporting Congress v. Thomas, 137 F.3d at 1150.

The question of "[w]hether there may be a significant effect on the environment requires consideration of two broad factors: 'context and intensity.'" National Parks, 241 F.3d at 730 (citing 42 U.S.C. § 4332(2)(C); 40 C.F.R. § 1508.27; Sierra Club v. United States Forest Serv., 843 F.2d 1190, 1193 (9th Cir.

1988)). The NEPA regulations define these terms and provide persuasive guidance on what factors and issues should be considered in applying them. 40 C.F.R. § 1508.27; Blue Mountain Biodiversity Project, 161 F.3d at 1212. Meeting even just one of these factors may suffice to reach the "significance" threshold and require preparation of an EIS. Ocean Advocates v. United States Army Corps of Eng'rs, 361 F.3d 1108, 1125 (9th Cir. 2004). Because the Challenged Rule meets nearly all of them, an EIS was clearly required. Indeed, the congruence between the CEQ factors and the attributes of the CAFE rulemaking is striking.

"Context" under the NEPA regulations 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 proposed setting." 40 C.F.R. § 1508.27(a). "Context simply delimits the scope of the agency's action, including the interests affected." National Parks, 241 F.3d at 731. Here, the context is our common global atmosphere. Given the breadth and reach of the CAFE standards, and their potential contribution to worldwide greenhouse gas emissions, the Challenged Rule may affect virtually every level of society and virtually every ecological system on earth. In fact, it is hard to imagine any single agency action whose contextual setting would be more significant.

"Intensity," the other relevant significance category, "refers to the severity of impact" and "relates to the degree to which the agency action affects the locale and interests identified in the context part of the inquiry." National Parks, 241 F.3d at 731; 40 C.F.R. § 1508.27(b). The NEPA regulations identify ten separate factors to consider in determining intensity. These factors include, among others: (1) "the degree to which the proposed action affects public health or safety"; (2) "degree to which the effects on the quality of the human environment are likely to be highly controversial"; (3) "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"; (4) "whether the action is related to other actions with individually insignificant but cumulatively significant impacts"; and (5) "the degree to which the action may adversely affect an endangered or threatened species or its [critical] habitat." 40 C.F.R. §§ 1508.27(b)(2), (4), (6), (7), (9). When applied to the Challenged Rule, each of these five counsels for the preparation of an EIS.

First, given its greenhouse gas implications, the Challenged Rule could have profound impacts on public health and safety. A global climate breakdown will affect virtually every nook and cranny of the planet, potentially driving millions of

people from their homelands and vastly increasing disease potential. ER 423-507. This factor alone, like several of the others, warrants preparation of an EIS.

Second, the Challenged Rule is highly controversial. "The term 'controversial' refers 'to cases where a substantial dispute exists as to the size, nature, or effect of the major federal action rather than to the existence of opposition to a use.'" Foundation for North American Wild Sheep, 681 F.2d at 1182 (citations omitted) (comments by "conservationists, biologists, and other knowledgeable individuals" critical of the agency's no significance conclusion sufficient to trigger EIS). Here, NHTSA received over 45,000 individual submissions on its proposal. ER 1384. The vast majority of these comments requested that the agency require significantly higher fuel economy levels. ER 307-309. The outrage over NHTSA's ridiculously low fuel economy standards is precisely the type of "out-pouring of public protest" that triggers preparation of an EIS. See e.g., National Parks, 241 F.3d at 736-37 (450 comments protesting proposed decision sufficient to trigger EIS); Sierra Club, 843 F.2d at 1193-94 (highly critical "affidavits and other testimony of conservationists, biologists, and other experts" disputing no significance determination triggered EIS).

Third, the Challenged Rule almost certainly will "establish a precedent for future actions with significant effects" as it constitutes a substantial and the first-

ever overhaul of the CAFE regulatory structure and introduces a new six-tiered "footprint" system. EPCA Br. at 17-21. Given the time and effort NHTSA devoted to development of the new "reformed" structure, the Challenged Rule is likely to affect light truck fuel economy standards well past the 2008-2011 model years. Indeed, the Final EA for the Challenged Rule relies exclusively on the last model year (2007) as the "baseline" for comparative analysis and alternatives development. There is no reason to believe that the Consolidated Rule will not serve the very same "baseline" function for future CAFE rulemakings.

Fourth, as explained in detail above, "it is reasonable to anticipate a cumulatively significant impact on the environment" from the Challenged Rule. 40 C.F.R. §1508.27(b)(7). See also 40 C.F.R. §1508.7. In fact, given the global and rapidly accumulating nature of atmospheric greenhouse gases, it is difficult to imagine a problem more clearly resulting from "individually minor but collectively significant actions taking place over a period of time" than global warming. Nonetheless, the cumulative impacts discussion of greenhouse gases included in the Final EA is virtually indecipherable; it requires the kind of fuller, more meaningful discussion normally provided in an EIS. Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Management, 387 F.3d 989. (9th Cir. 2004) (project EAs

failed to provide a publicly decipherable analysis of the cumulative impacts of the sales in a quantified assessment of their combined impacts).

Finally, hard science now tells us, to a virtual certainty, that global warming is affecting endangered and threatened species around the world and that much more intensive harm to species and ecosystems is likely yet to come. Under these circumstances, a fuel efficiency rulemaking that will result in the release of almost 2.8 billion more metric tons of CO_2 to the atmosphere over the lifetime of the regulated vehicles can scarcely be considered insignificant.

Each one of the foregoing factors argues for the preparation of an EIS. Together, they provide an overwhelming case for NHTSA to take the bull by the horns and prepare the kind of comprehensive environmental analysis that the CAFE program has never received. Many of the nation's brightest scientific minds believe that we stand at the eleventh hour on the global doomsday clock. The nation's light truck fleet is a significant contributor to that ticking timebomb. NHTSA claims to have exclusive and preemptive authority over this fleet, from fuel economy standards to greenhouse gas emissions. Yet the agency refuses to engage in a thorough and rigorous environmental review of its fleet regulations. Consistent with NEPA, therefore, this Court should direct NHTSA to prepare a full EIS for its light truck fuel economy standards.

CONCLUSION

For the foregoing reasons, and the further reasons set forth in the States' Brief and Petitioners' EPCA Brief, Petitioners respectfully request that the Court (1) declare the Final EA for the Challenged Rule to be arbitrary, capricious, and inconsistent with law and (2) direct NHTSA to prepare a full EIS for its light truck CAFE standards.

Dated: November 15, 2006

Respectfully submitted,

STANFORD ENVIRONMENTAL LAW CLINIC

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CERTIFICATE OF COMPLIANCE PURSUANT TO FED. R. APP. 32(a)(7)(C) AND CIRCUIT RULE 32-1

Pursuant to Fed. R. App. P. 32 (a)(7)(C) and Ninth Circuit Rule 32-1, I certify that the attached brief is proportionally spaced, has a typeface of 14 points, and contains 12,427 words, exclusive of tables.

Dated: November 15, 2006 _____

Deborah A. Sivas

PROOF OF SERVICE

LYNDA F. JOHNSTON declares:

I am over the age of eighteen years and not a party to this action. My business address is 559 Nathan Abbott Way, Stanford, California 94305-8610.

On November 15, 2006, I served the foregoing **OPENING BRIEF OF PUBLIC INTEREST PETITIONERS ON NATIONAL ENVIRONMENTAL POLICY ACT ISSUE** on all parties to this action by placing two true and correct copies thereof in a sealed envelope, with postage fully prepaid, in the United States Mail at Stanford, California, addressed as follows:

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that the foregoing is true and correct, and that this declaration was executed November 15, 2006 at Stanford, California.

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