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Before the
Subcommittee on Energy and Environment,
Committee on Energy and Commerce
U.S. House of Representatives

Hearing On
"The American Clean Energy and Security Act of 2009"
April 24, 2009

Mr. Chairman and members of the subcommittee, thank you for the opportunity to testify today on behalf of the Natural Resources Defense Council (NRDC) on the American Clean Energy and Security Act of 2009. My name is David Doniger. I am policy director of the Climate Center at the Natural Resources Defense Council (NRDC), and I have been NRDC's senior lawyer in a number of global warming cases, including *Massachusetts v. EPA*. NRDC is a national, nonprofit organization of scientists, lawyers and environmental specialists dedicated to protecting public health and the environment. Founded in 1970, NRDC has more than 1.2 million members and online activists nationwide, served from offices in New York, Washington, Los Angeles and San Francisco, Chicago and Beijing.

My testimony will cover three somewhat far-ranging topics which this panel has been asked to address: (1) coordinating the existing Clean Air Act and comprehensive new climate legislation, and in particular, defining the role of states; (2) assuring sound regulation of carbon markets; and (3) addressing our domestic and international adaptation needs.

I. The Current Clean Air Act and New Climate Legislation

Two years ago, the Supreme Court issued its landmark ruling in *Massachusetts v. EPA*, holding the carbon dioxide and other greenhouse gases are "air pollutants" subject to regulation under the Clean Air Act if the Administrator of the Environmental Protection Agency (EPA) determines that they contribute to air pollution that may reasonably be anticipated to endanger public health or welfare. The High Court directed EPA to decide whether the scientific evidence demonstrated endangerment, and if so, to establish standards to curb the emissions and reduce the danger.

One week ago, Administrator Lisa Jackson took the long-overdue step of officially recognizing that global warming pollutants are indeed dangerous to public health and to the many components of the natural and man-made world encompassed in the definition of welfare. Scientifically, the Administrator's conclusions broke no new ground. She based her determinations on the solid foundation of the Nobel prize-winning Intergovernmental Panel on Climate Change (IPCC) and numerous peer-reviewed national scientific assessments. The EPA's summary of these reports speaks with chilling clarity about the increase in deaths, illnesses, and environmental impacts that are occurring now and that will steadily worsen unless we act to curb these emissions. Let me quote just one paragraph (from pages 99-100 of the notice):

> The Administrator concludes that, in the circumstances presented here, the case for finding that greenhouse gases in the atmosphere endanger public health and welfare is compelling and, indeed, overwhelming. The scientific evidence described here is the product of decades of research by thousands of scientists from the U.S. and around the world. The evidence points ineluctably to the conclusion that climate change is upon us as a result of greenhouse gas emissions, that climatic changes are already occurring that harm our health and welfare, and that the effects will only worsen over time in the absence of regulatory action. The

> effects of climate change on public health include sickness and death. It is hard to imagine any understanding of public health that would exclude these consequences. The effects on welfare embrace every category of effect described in the Clean Air Act's definition of "welfare" and, more broadly, virtually every facet of the living world around us. And, according to the scientific evidence relied upon in making this finding, the probability of the consequences is shown to range from likely to virtually certain to occur. This is not a close case in which the magnitude of the harm is small and the probability great, or the magnitude large and the probability small. In both magnitude and probability, climate change is an enormous problem. The greenhouse gases that are responsible for it endanger public health and welfare within the meaning of the Clean Air Act.

Though the EPA's action broke no new scientific ground, its legal consequences are momentous. For after long delay, the endangerment determination commits the federal government to using the legal authority that Congress has already provided to begin curbing global warming pollution.

NRDC salutes Administrator Jackson and President Obama for taking this rapid action to begin tackling global warming. We intend to work with them to carry out the existing Clean Air Act to achieve the substantial emission reductions possible under the law as it is today. At the same time, we join with them, and with you, in the effort to enact comprehensive new climate legislation to make the broader, deeper reductions needed over the long term.

The American Clean Energy and Security Act proposes to build upon today's Clean Air Act to create the Clean Air Act of tomorrow. The ACES bill recognizes that most relevant provisions in the current Act can be implemented in harmony with new Clean Air Act amendments to cap and reduce emissions and can provide important additional benefits. So the new bill wisely proposes to keep, in a number of instances to strengthen, most of the current Clean Air Act.

At the same time, however, the bill proposes a number of exemptions from programs under the current Clean Air Act. Several of these exemptions raise concerns. We understand that they are offered to be responsive to claims that certain provisions of the current Clean Air Act would be unnecessary when a comprehensive cap law is enacted. We think that many of those claims are not well-founded, however, and that legitimate concerns can be addressed with more surgical changes to programs that have worked well to date.

There are some who claim that no part of the existing law should ever be used. Their broadest argument – that the Clean Air Act was not intended to be used to curb global warming pollution – was rejected by the Supreme Court in *Massachusetts*. Some now argue that if EPA ever starts using the Clean Air Act, it will never be able to stop: that using the Clean Air Act to address big sources – like cars, power plants, refineries, and cement plants – will inevitably will lead to regulating every donut shop and barbeque in the land. We believe EPA has the tools to focus on the big sources, not the tiny ones, and that donut lovers and barbeque fans can sleep soundly at night.

Let us look at the some of the relevant provisions in turn.

Motor vehicles. I will start where EPA has started, with mobile sources. Section 221 of the ACES bill provides specific instructions and deadlines for EPA to use existing Clean Air Act authorities to set technologically and economically feasible standards for global warming pollutants from cars, light trucks, heavy-duty vehicles and engines, and non-road engines. These are essential and very welcome provisions. It is essential to set strong greenhouse gas performance standards to complement the overall cap on emissions of global warming pollutants. Administrator Jackson has rightly found that

vehicle emissions of these pollutants contribute to the mix of greenhouse gas air pollution in the atmosphere. Now EPA's task is to set standards under the technology-based criteria of the existing law. For cars and light trucks, Section 202(a)(2) provides that: "Any regulation prescribed under paragraph (1) of this subsection (and any revision thereof) shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period." For heavy-duty engines, Section 202(a)(3)(A) provides that standards shall "reflect the greatest degree of emission reduction achievable through the application of technology which the Administrator determines will be available for the model year to which such standards apply, giving appropriate consideration to cost, energy, and safety factors associated with the application of such technology." Section 202(a)(4) also gives EPA authority to assure that the means used to comply with emission standards do not create "an unreasonable risk to public health, welfare, or safety in its operation or function." Similar, completely practical standard-setting criteria are found in the other provisions of Title II of the existing law related to heavy-duty, non-road, and aircraft engines.

Power plants. Under Section 111 law of the existing Clean Air Act, EPA will soon have to determine whether the emissions from power plants significantly contribute to the mix of dangerous greenhouse gas pollution. That responsibility comes from a second case, *New York v. EPA,* which challenged EPA's determination in 2004 that it lacked authority under the Clean Air Act to limit CO_2 emissions from power plants under Section 111. Since the EPA decision rested on the same faulty arguments rejected in *Massachusetts v. EPA,* the Court of Appeals sent the *New York* case back to EPA for a

new decision on power plants. Since power plant CO_2 emissions are roughly double those from cars and light trucks, it is hard to see how EPA could reach a negative decision. Between the *Massachusetts* and *New York* cases, then, EPA can address the sources of more than 60 percent of this country's CO_2 emissions.

Section 116 of the ACES bill would create a new Section 812 of the Clean Air Act containing specific performance standards for new coal-fired and petroleum coke-fired electric generating units. While styled as a separate section, Section 812 essentially adapts the provisions of Section 111 to establish greenhouse gas performance standards tailored to coal-fired and petroleum coke-fired electric generating units. We support those provisions for the reasons explained by my colleague David Hawkins in testimony earlier this week. We think it is important, however, to retain the provisions of Section 111(d) that apply to existing power plants and other sources, a subject I will address below.

Other Clean Air Act Provisions. The ACES bill contains a number proposed exemptions for sources of greenhouse gases from programs under the current Clean Air Act. Two changes do not, in our judgment, raise significant concerns. Sections 831 and 832 of the ACES bill exclude greenhouse gases from coverage under the ambient standards and hazardous air pollutant programs. NRDC believes these changes are sensible as these programs are not well suited to managing emissions of greenhouse gases.

In addition, since as mentioned Section 812 of the ACES bill proposes specific emission standards for coal- and petroleum coke-based electric generating units permitted after the start of 2009, NRDC believes it is appropriate to clarify that the sources subject

to section 812 would not be subject to the more general authority of the current Act's section 111 New Source Performance Standard provision. NRDC also supports a change to the current law's New Source Review (NSR) provisions to establish an applicability threshold for greenhouse gases of 10,000 tons per year carbon dioxide-equivalent, a move that would remove the much trumpeted possibility of subjecting small sources to NSR.

NRDC disagrees, however, with sections 811 and 833 of the ACES bill as written. Section 811 would entirely repeal current Section 111's New Source Performance Standards for sources covered by the ACES bill's cap. Section 833 would exempt consideration of greenhouse gases under the current Act's New Source Review (NSR) provisions for all sources, capped or not. NRDC believes these provisions are too sweeping and would inappropriately eliminate the government's ability to establish reasonable and affordable performance requirements that would complement the cap and contribute to achieving the goals of the ACES bill in an efficient and cost-effective manner.

Since the first comprehensive federal clean air law enacted in 1970, Congress has recognized the value of providing complementary approaches to achieving our air quality and emissions objectives, rather than relying exclusively on a single instrument. Thus, in the Clean Air Act of 1970, Congress included both an air quality management program focused on ambient air concentrations of pollutants (sections 108 and 109) and programs to establish continuously improving emission performance standards for motor vehicles (section 202) and for large stationary air pollution sources (section 111). Congress created this dual management approach because it recognized that assuring reductions from major emitting sectors like vehicles, power plants, and major industrial sources,

based on evolving technological capability, would provide a foundation for assured emission reductions – reductions that would relieve the strain placed on the ambient management approach if it were the exclusive means of producing emission reductions. In the 1977 amendments to the Act, Congress established a case-by-case process for evaluating readily achievable emission performance under the NSR Program in order to assure a more rapid updating of improvements in pollution control technology.

The argument has been made that with an overall cap or budget on greenhouse gas emissions, we should simply not care about the amount of emissions from individual sources or even entire sectors. But Congress rejected that approach in the 1990 amendments when it enacted a cap on sulfur dioxide emissions from the electric power sector to combat acid rain. Congress retained the NSPS and NSR programs for the sources covered under the acid rain program, and those programs have continued to function well to minimize emissions from new sources, thereby reducing pressure on the sulfur dioxide cap and demonstrating improved and less expensive means of emission reduction that can be used to reduce emissions from existing sources as well.

In this case, the cap on total emissions of greenhouse gases (rather than an ambient standard) is a core element of an effective greenhouse gas reduction strategy. It creates a market for the many innovations that will be required to achieve the deep reductions we need to protect the climate. Theoretical arguments that other programs are not needed once we have a cap are misplaced because they ignore the reality that the cap enacted by Congress will involve compromises. The initial cap set in this legislation is not likely to reduce emissions as fast as may be environmentally and economically prudent. The inclusion of cost-containment provisions for reasons of economic prudence

may also mean that cap-driven reductions fall short of those that can be implemented cost-effectively in some key sectors.

The ACES bill recognizes the value of the dual structure I have outlined, and includes or retains a number of complementary policies to help supplement the cap program; for example, provisions for emission standard for new coal-based power plants, low carbon fuel standards, and vehicle emission standards, as well as the renewables and efficiency standards contained in Titles I and II of the bill.

NRDC believes it is important to preserve EPA's ability to set reasonable emission standards under Section 111 for major source categories of greenhouse gas emissions even if they are subject to the cap. We also recommend retention of the Act's NSR provisions for truly large sources of greenhouse gas emissions. This technology-forcing authority will help avoid what happened in the RECLAIM program in Southern California, where exclusive reliance on a cap program led to pervasive delays in reducing emissions from covered sources, and to a totally avoidable compliance crisis when the deadline arrived.

Critics have complained that strict application of the current Clean Air Act provisions for NSR would result in burdensome coverage of many small emission sources. That concern is easily addressed by raising the NSR threshold to a level that would cover only truly large industrial sources, such as 10,000 tons per year of CO_2-equivalent emissions, and we recommend that change be made. With this change to NSR, the adoption of new Section 812, and the exemption from ambient and hazardous emission standards, the current Act can be fully harmonized with the new cap on greenhouse gas emissions without eliminating the government's ability to establish

reasonable performance standards for important sources to complement the operation of the cap.

The Role of States. States have played, and will continue to play, a key role in controlling the pollution that drives climate change. During the long period of federal abdication, states have led the way. States have pioneered control of greenhouse gas emissions from vehicles, and they run effective programs to deploy energy efficiency and renewable energy resources. States, and entities that states regulate (such as local distribution companies) have program delivery capabilities that the federal government cannot match. If the federal program should come off the rails at some point in the future, it is extremely important that states be able to pick up the slack once again. In short, both the federal and state levels of government have key roles to play. For these reasons, NRDC is strongly supportive of many provisions of the ACES bill that would harness the capabilities of the states and protect their role.

With one exception, the ACES bill expressly protects the authority of state governments to adopt and enforce limits on GHG emissions, to adopt and enforce energy efficiency and renewable energy measures, and to take other regulatory actions to contribute to solving global warming. The one exception is the authority of state governments to implement or enforce cap-and-trade type programs, which would be suspended for six years under section 861.

Even temporary preemption of state authority to impose a cap on greenhouse gas emissions is very troubling. NRDC does not believe a real case has been made why any suspension of state authority is warranted. Instead, recognizing the potential value of integrating state programs into a suitable national program, NRDC recommends a

means through which states can *voluntarily* suspend the adoption or enforcement of state caps so long as the national program provides a strong national cap (as the ACES bill now proposes), retains other state authorities (again, as proposed) and includes certain additional provisions:

- *Adequately supporting state energy efficiency, renewable energy, and transportation efficiency programs.* The draft bill authorizes action taken directly by states, and through state-regulated entities such as local distribution companies, for example to accomplish aggressive deployment of energy efficiency resources, which are critical to achieving emissions goals at the lowest cost and to creating green jobs and a sustainable energy and economic future. As the committee determines the distribution of the valuable emissions allowances, it is essential to provide sufficient resources for these state-run and state-regulated energy efficiency, renewable energy, and transportation efficiency programs.

- *EPA authority to realize the benefits of superior state programs.* A number of states are implementing non-cap programs – such as energy efficiency standards and renewable energy deployment programs – that will achieve greater reductions of greenhouse gas emissions within their boundaries than the national program would achieve. The bill should include a provision to make sure the emissions benefits of these programs are achieved. This can be done without imposing higher cost burdens on businesses and residents in other states. Thus, the bill require EPA to reduce the national cap by an amount commensurate with additional program efforts that a state undertakes – if EPA determines that these programs produce emission reductions that would not have occurred without those efforts, if EPA determines they can be achieved without increasing allowance prices in other states.

We also urge the committee to clarify that the six-year "time-out" under Section 335 applies only to caps implemented with requirements to surrender non-federal allowances, and not to other state policies. This can be accomplished by using the same language in Section 335 that is used in section 334. We can provide specific language suggestions to you.

Let me close on this topic with a word about provisions in the ACES bill intended to clarify that citizens should have the same rights of access to the courts as industries. It

is well accepted that an industry that bears any tangible costs as a result of an EPA regulation has standing to go to court to contest whether the regulation complies with the statute. With regard to conventional air pollution, it is equally well accepted that an individual who breathes pollutants or otherwise suffers tangible harm personal or property damage from those pollutants also has standing to go to court to challenge whether the regulation complies with the statute. The access that all affected parties have to the courts helps ensure faithful execution of the law. This is common sense and long-established law.

Strange as it may seem, however, the previous administration contended that global warming was different – that though industry could go to court to argue that government action was too severe, persons suffering the impacts of global warming, and persons exposed to irrevocably increased risks of future impacts of global warming, did not have the same rights to go to court to argue that government action was too lax. In *Massachusetts v. EPA*, the Supreme Court determined that states have standing, holding that Massachusetts' loss of state-owned coastal property from sea level rise caused in part by vehicle emissions gave the state standing to challenge EPA's illegal behavior. The Court did not address in that case whether similar loss of coastal property owned by a private citizen would confer the same standing, nor did the Court address whether increased risk of health effects – death or illness due to enhanced heat waves or smog episodes due to global warming – would confer standing.

Through Congressional findings and purposes, the ACES bill expresses the entirely common-sense concept and intent that these kinds of present and future injuries suffered by private citizens – including both health effects and damages to property and

natural resources enjoyed by such persons – are as tangible and important as economic injuries suffered by industries. The bill says nothing more than that individuals who show these kinds of injuries should have the same access to the courts as industries, and that equal judicial consideration of both environmental and economic injuries will contribute to faithful execution of this law. These provisions are fair and balanced and should be retained.

II. Sound Regulation of Carbon Markets

The ACES bill includes important provisions to transparently and effectively regulate the market for trading greenhouse gas allowances, as well as futures and other instruments that may be created. Given recent experience on some other trading markets, the American people have a right to demand that rules for regulating carbon trading be clear, transparent and faithful to the fundamental *non*-financial objective of a cap and trade program: curbing carbon pollution. This means that the rules must facilitate achievement of the bill's long-term environmental objectives and not the short-term financial objectives of speculative traders.

The ACES bill already contains important market safeguards. For example, the bill gives the Federal Energy Regulatory Commission responsibilities to protect against market manipulation. Key requirements include limiting any emitting company from purchasing more than 20 percent of the allowances sold in any one auction, fining companies involved in market manipulation up to $25 million, and preventing any single participant from owning more than 10% of any class of derivatives. NRDC recommends including three additional safeguards in the bill:

Exchange Trading. In addition to the market in actual allowances, a market will develop in futures – contracts to deliver an actual allowance at a set date in the future. The future delivery date may be in the near-term (such as the end of the current year) or some years ahead. In some markets, such as oil, contracts for delivery are mostly for delivery less than two years into the future. For carbon allowances, futures may well develop looking forward as much as a decade.

Congress should consider requiring all trading in allowances and in futures to take place on regulated exchanges. This would effectively prohibit "over-the-counter" (OTC) trades where the amounts traded and the prices paid are essentially invisible to other participants and to market overseers. Given the size of these markets, there is no reason why both actual allowances and futures for cannot be effectively bought or sold on regulated exchanges, giving the greatest possible transparency to trading activity and prices.

Trading on exchanges dramatically reduces so-called counter-party risk – the risk that one of the contract participants will fail to perform when the contract is due. The counter-party risk problem is inherent in OTC trading and became major concern in the markets following the collapse of Lehman Brothers. This risk would not be significant if trading is limited to well-run exchanges with margin requirements and other features to assure contracts are performed upon.

At a minimum, if Congress determines not to entirely eliminate OTC trading, the bill should require the reporting to regulators of all non-standardized trades with a nominal value – for example, above $10 million. This would actively discourage speculative trades in the OTC market, as these trades would still be under the purview of

the regulator. It also would allow the regulator to keep track of large trades and outstanding counterparty risks in the marketplace.

Position Limits. As a further safeguard against manipulation, Congress should set tighter "position limits" on the fraction of allowance futures that any one participant can hold in the carbon market. We recommend that no one be allowed to have more than a *five* percent (not 10 percent, as the bill proposes) position in each futures market – for example, the market for contracts to deliver allowances at the end of 2013, or the market to deliver them at the end of 2017, etc. By establishing a position limit of five percent, no single market participant will have the market power needed to meaningfully influence prices. Furthermore, this five percent position limit will prevent individual players from disrupting the markets due to the need to liquidate positions for unrelated reasons such business failures, bankruptcy, or other unanticipated need to raise cash.

Contract limits are generally not required in the cash market for actual allowances of the current year's or a prior year's vintage during the course of any given year. However, strict position limits should take effect as the end-of-the-year compliance deadline approaches (and in the "true up" period allowed after the end of the year) to prevent participants from manipulating prices as the deadline draws near for delivering on futures relevant to that compliance period. In order to ensure a smooth delivery process from the futures into the cash market, positions in actual allowances should be limited to no more than 20 percent more than the compliance obligation of the largest emitter in the previous year. This limit will prevent arbitrage players from having the market power to charge high rates of interest to market participants at the end of

compliance period. It will help prevent volatility and lower the overall cost of the program.

Overseas Trading. The carbon market is expected to attract interest from overseas exchanges looking to facilitate trades during the hours when U.S. markets are closed. These foreign exchanges will tend to have their own reporting rules that may or may not make trading data transparent and accessible to U.S. market participants and regulators. This leaves open the risk that market players could side-step position limits by holding some or all of their allowances or futures offshore. In an effort to address this carbon leakage issue, Congress should direct the administration to work with other nations to establish comparable exchange trading safeguards as a condition of linkage to the U.S. carbon market. .

III. Domestic and International Adaptation

As Administrator Jackson found last Friday, global warming pollution is already causing serious impacts on our health and on our environment and natural resources, and these impacts are projected to worsen over time. We have to reduce emissions as soon as possible to avoid the worst impacts of global warming. It is plain, however, that adverse impacts are already occurring and will continue even if we accomplish these reductions. So at the same time we reduce emissions, we must prepare to manage the impacts of global warming that we cannot avoid, by acting now to protect our communities and natural systems.

The ACES bill contains important adaptation provisions in Title IV, Subtitle E, to promote federal, state, and international efforts to prepare for and mitigate the impacts of global warming that are predicted to occur even with strong emission reduction standards

in place. The draft legislation provides the following key measures for creating and implementing an effective adaption strategy:

- vulnerability assessments, including anticipated impacts to water, agriculture, forests and coastal resources;
- requirements for federal agency adaption plans that address recognized vulnerabilities, including a timeline for implementation;
- a resource center to ensure adaption plans are based on the best science available;
- financial and scientific resources to encourage state planning for climate change;
- recognition that ocean acidification due to the uptake of carbon emissions from the atmosphere is one of the most serious environmental consequences we face, which must be addressed in adaption planning;
- requirements for the Secretary of HHS to promulgate a national strategy for addressing the impacts of climate change on public health in the U.S.;
- US assistance to develop and implement climate change adaptation programs and projects that can reduce the vulnerability and increase the resilience of the most vulnerable developing countries;
- creation of an International Climate Change Adaptation Program within USAID to provide U.S. assistance to the most vulnerable developing countries for adaptation to climate change.

NRDC supports these provisions but urges they be strengthened by including the following:

First, the ACES bill should require adaptation plans to be fully consistent with conservation and environmental protection mandates contained in other federal laws. Adaptation plans must prevent further degradation of already stressed ocean, estuarine, freshwater and terrestrial ecosystems.

Second, the bill should require that federal adaptation plans developed under Subpart A (which calls for general adaptation planning) reflect and be fully consistent

with the natural resource adaptation plans developed under Subpart C. Currently there is no mechanism for coordinating these important planning efforts.

Third, the bill should provide additional guidance on the national public health strategy, including:

- Provisions to improve and integrate disease surveillance systems and environmental monitoring capacity to enable early detection of climate change impacts on public health;

- Requirements to develop tools for modeling and forecasting the public health effects of climate change on various geographic scales (city, county, state), and to provide technical support to assist in their implementation;

- Requirements to identify communities and populations vulnerable to the effects of climate change, and determine actions that should be taken to protect them, building on the vulnerability assessments called for in Subpart A.

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Thank you for the opportunity to testify on this far-ranging set of issues. I look forward to answering your questions.