OFFICE OF THE MAYOR
OFFICE OF OPERATIONS
253 Broadway - 10th Floor
New York, New York 10007
www.nyc.gov/operations

Memorandum

To: Mayor Michael R. Bloomberg

From: Rohit T. Aggarwala, Director of Long-Term Planning and Sustainability

Date: August 31, 2009

Subject: H.R. 2454, the American Clean Energy and Security Act of 2009 (ACES)

On June 26, 2009, the U.S. House of Representatives passed H.R. 2454, the American Clean Energy and Security Act of 2009, more commonly known as ACES or the Waxman-Markey bill, after its sponsors, Representatives Henry Waxman (D-CA) and Edward Markey (D-MA). Currently, the United States Senate is beginning to work on its version of climate change legislation; it is widely understood that the Environment and Public Works Committee (EPW) will use both ACES and a Senate-originated bill that was reported out of Energy and Natural Resources Committee on July 16, 2009, the American Clean Energy Leadership Act (S. 1462), as its starting point. It is also understood that the Senate is also looking closely at the version of ACES bill passed by the House Energy and Commerce Committee, rather than the final version passed by the full House. ACES and its companion bills will be landmark achievements if enacted into law. The work of Congressmen Waxman and Markey has been tireless and creative.

This memorandum assesses ACES from the perspective of New York City and peer city governments. There are several critical areas where ACES can and must be improved in order to ensure that the legislation fully addresses the needs of cities and the opportunities urban areas offer in terms of emissions reductions. This memo contains recommendations to address these shortcomings, with three overall goals:

1. Empower city governments to play the roles for which they are the best-suited level of government, and in which they are already taking aggressive steps;
2. Ensure that urban areas receive their fair share of climate change-related funding; and
3. Make carbon markets work effectively by providing flexibility and transparency rather than undermining the cap or stifling innovation.

1. Empower city governments to play the roles for which they are the best-suited level of government, and in which they are already taking aggressive steps.

Across the United States, municipal governments have led the fight against climate change; many US cities have shown much more concrete success in addressing climate change and energy efficiency than other levels of government. A key reason for this is that cities, not states, have control of many of the policy levers that can achieve emissions reductions. In cities across the country, city governments control zoning requirements, and are thus best suited to promote transit-oriented development; most large cities have municipal building codes; in many states, even state energy codes are only enforced by city officials. Similarly, cities are usually more directly responsible for the emergency-response and disaster-resilience policies that will need to be most acutely prepared for global climate change. All of these are true in New York City. ACES, however, either ignores the important roles that cities can play, or systematically underfunds those roles. It should be improved to empower cities to play these roles more effectively.

a. Code enforcement. Section 201 provides money to states for building code enforcement; but city governments will be systematically under-resourced by these provisions. In states where local governments provide *all* code enforcement, state governments will still be allowed to keep 50% of the allocations for enforcement, which is both counterintuitive and counterproductive. In states where state and local governments share enforcement responsibilities, funds are distributed among the various agencies based on the number of building inspections each agency completes in a given year rather than the total floor space inspected. The latter provision is especially troubling because it suggests that inspections of large, multi-story buildings do not require more resources than inspections of smaller structures. In both cases, funds for code enforcement should be allocated based solely on the building square footage that each building agency within a state is responsible for inspecting. This will ensure that city governments have the funds to perform energy inspections appropriately.

b. Property tax assessment financing. Section 188 would allow the newly established Clean Energy Deployment Administration (CEDA) to provide credit support to funds established by local entities for energy efficiency and renewable energy investments by private building owners. A main goal of this provision is to enable widespread adoption of Property Assessed Clean Energy (PACE) bonds, a system pioneered in Berkeley, CA, that enables individual property owners to volunteer to take lienable assessments on their property tax bill in order to obtain financing for efficiency upgrades to their buildings. The problem is that, in many states, such a program requires enabling legislation at the state level before municipalities can undertake it. For the PACE program to succeed, a provision must be added to require state governments to enable municipal governments to create such programs; states that do not do so should lose their allocations for building efficiency improvements.

c. Efficiency labels for existing buildings. Section 204 of ACES creates a building labeling program that would require new buildings to disclose their energy efficiency, and provide funds to improve the Federal EnergyStar tools that enable such labeling. In

New York, however, we expect that only 15% of the buildings we will have in 2030 will be new construction; 85% of the buildings of the future already exist today. As a result, ignoring existing buildings in this program will neglect the opportunity that exists in many cities. Section 204 should be improved by requiring labeling for existing structures, under a realistic timeline of auditing and labeling. Creating such a provision would encourage owners to retrofit their structures (an exceedingly cost-effective investment) in the same way that a building labeling program for new buildings would encourage builders to build more efficiently. It would also significantly aid city governments in managing efficiency policies for existing buildings.

d. Allow credits for future reductions required by local laws. Cities have already begun to require efforts that improve the energy efficiency of structures and vehicles. However, city governments cannot rationally take steps that may be helpful to the planet but put their own residents at a disadvantage versus residents outside the city. There is a serious risk that the definition of "additionality" as given in Section 734 and outlined below would disincentivize local legislation from requiring efforts beyond national standards.

Attempting to ensure that credits are of high quality, Section 734 of ACES requires that only carbon reductions that meet the test of "additionality" be eligible for use in the cap-and-trade system. Additionality means that an action must be beyond what a given entity would have done in the normal course of business; it is usually applied to actions that are required by law, or would be a rational business investment. The problem is that we know that many highly cost-effective opportunities exist, but are not exploited, due to lack of awareness, institutional barriers, and the like. Section 861 explicitly encourages state and local efforts to require that these opportunities be realized, by ensuring that non-cap-and-trade requirements by state and local governments are not pre-empted.

The definition of additionality in ACES (section 734), however, is overly restrictive, and should be relaxed, particularly in the early years of the system. As written, it would deny offset credit generation ability to many entities that could help to cost-effectively meet the bill's emission reduction targets in its early years. Under section 734 (a)(1)(A), any laws requiring emissions reductions, no matter when imposed, would render the resulting reductions ineligible to be sold as offsets. Thus, a state or locality that imposes requirements for emissions reductions would deny its citizens the ability to sell their resulting offsets into the cap-and-trade system, while citizens doing the same activities with the same environmental benefits in a jurisdiction with less rigorous requirements would be able to sell credits for their activities. The rational reaction would be to eliminate all such leading efforts, such as the building retrofit requirements included in New York City's Greener, Greater Buildings Plan. This will clearly inhibit aggressive local actions. Other restrictions placed on eligible credits could similarly create confusion or doubt as to their eligibility, which would hinder the development of creative but high-impact programs. For example, the UN's Carbon Development Mechanism, created by the Kyoto Protocol, has consistently been unable to create funding for diffuse urban opportunities precisely because its rules created confusion and transaction costs.

In place of these requirements, a better approach would be for the additionality clause to grant offset credit generation eligibility to all emission reduction, sequestration, and avoidance projects undertaken by non-covered entities after January 1, 2009. Such projects must be rigorously documented and denied such eligibility if they receive separate funding under the federal climate bill. Similarly, the definition of activity baselines should reflect a realistic interpretation of what can be expected of an entity under "business as usual" conditions. Such definitions would reduce uncertainty and litigation around the definition of additionality; provide financing to projects that help to fulfill the federal emission reduction targets, and would add much needed volume to the carbon market in its early years. These rules could be tightened over the course of the cap-and-trade regime.

e. Fuel-efficient taxis. Among New York City's icons are its 13,000 yellow taxis. These cars drive, on average, 80,000 miles each year – more than three times the average of an American automobile. Similar high-use taxis are present in all of our major cities. In 2007, our Taxi and Limousine Commission imposed a requirement that new taxicabs be highly fuel efficient, using existing vehicle models commercially available. Because our taxi operators must buy new cars, there is minimal cost to switching to a hybrid car, and the savings – even at $2.50 gasoline – saves roughly $5,000 per year in gasoline per vehicle. However, a federal judge struck down this rule as pre-empted by the Clean Air Act and the Corporate Average Fuel Economy (CAFE) standards created by the Environmental Policy and Conservation Act. Amending CAA and EPCA to allow NYC to reinstate this rule would, over the next three years, eliminate roughly 1.5 million tons of carbon, in a way that is highly cost-effective. Other cities, such as Boston and Seattle, have also attempted to impose similar rules and may face similar legal challenges. The auto industry has expressed concerns with increasingly aggressive CAFE standards based on a claim that the demand for highly fuel-efficient vehicles is thin; by requiring that taxis be fuel-efficient, city governments can ensure a market for highly-efficient vehicles and thus help the automakers meet their CAFE targets more easily.

f. Transportation planning. Transportation in the U.S. accounts for roughly 1/3 of our greenhouse gas emissions, yet ACES allocates a mere 3% of allowances for transportation development (section 782(i)); similarly, while transportation planning is eligible under the State Energy and Environmental Development (SEED) program established in section 132, no SEED funding is required to go towards transportation. We support the inclusion of provisions in the CLEAN-TEA (S. 575) bill that would allocate 10% of emissions allowances for clean transportation development, with the condition that some funds should be set aside explicitly for mass transit and transit-oriented urban planning in cities to help create walkable, bikeable communities that take cars off the road in a cost-effective manner.

g. Climate change adaptation planning. Section 453 of ACES allocates between 1% and 4% of allowances created each year to state governments for the development and implementation of climate change adaptation plans. However, in the nation's most densely-populated and at-risk areas – our coastal cities – states are not the key decision makers for many of the policies that impact climate change adaptation. In most cities,

local zoning determines what kinds of buildings can be built where; local building codes determine how buildings are designed; local governments have primary responsibility for providing emergency services in response to potentially climate-change-exacerbated situations such as flooding and heat waves; and local governments or authorities generally own and operate the water systems that are among the most important systems to be considered in climate change adaptation planning. States clearly have a major role; but to ignore cities is misguided and will lead to poor planning. There should be a requirement that large cities -- perhaps those municipal governments with more than 500,000 residents (which comprise 15% of the US population), and cities over 250,000 in coastal areas -- also create their own climate adaptation plans. In section 453, ACES established a separate fund for competitive grants to Indian tribes for adaptation planning, which is to be 1% of the total allowances set aside for all adaptation planning efforts. To fund the planning efforts of large cities, a similar separate fund should be established with 15% of total adaptation allowances. States could subsequently be relieved of the responsibility over adaptation planning for cities that receive individual funding, except where such planning is necessary to coordinate statewide efforts.

h. Federal Emergency Management Agency (FEMA) flood maps for climate change adaptation. Although ACES wisely requires the federal government to establish a comprehensive global change research program in section 451, it ignores the best way the Federal government could begin to reduce the impact of sea level change on coastal areas: updating the FEMA flood maps. In New York City, as in most cities, our building code requires greater flood resiliency of buildings built in the flood plain. However, our flood maps are not as precise as current technology would allow, and they are out of date, because sea levels are already rising (due both to climate change and to plate tectonics); since the 1980s, which serves as the current baseline for sea level, sea level his risen by some 3 inches as measured at the Battery on the southern tip of Manhattan. As a result, areas that are already at risk are in fact not subject to existing flood plain requirements – a situation that is likely also the case elsewhere in the nation. The inaccuracy of the existing maps will only increase as sea levels rise. Updating these maps using state-of-the-art technology would make it easy for municipalities to extend flood-plain construction standards to areas that are currently really at risk. A further step would be to require FEMA to produce prospective maps showing where the flood lines are likely to be in 20, 50, and 100 years – because the buildings we build today are likely to last a century. Currently, many scholars and advocates are producing maps showing flooded areas, but these maps are subject to dispute and do not have legal authority. Requiring FEMA to produce maps as soon as possible incorporating sea level rise projections will leverage existing state and local standards to improve coastal resilience and prevent confusion among builders, homeowners, and insurers

i. County Greenhouse Gas Inventories. New York City currently undertakes an annual greenhouse gas inventory not only for its corporate emissions but also for the entire city (called a "community" inventory). The citywide inventory is critical as a policy tool because it identifies key sectors and their trends; for example, the fact that nearly 80% of our carbon emissions come from buildings was critical to PlaNYC's focus on energy efficiency. However, the development of this inventory is a difficult task and

requires that the City seek out data from multiple sources. Other cities have encountered serious challenges in developing their own community inventories. While section 713 of ACES requires that all covered entities submit greenhouse gas emissions data to the EPA to help establish a national greenhouse gas registry, it should go a step further and require EPA to develop county-level inventories of greenhouse gas emissions. Providing counties and municipalities with this information in a consistent, nationwide framework would stimulate innovative local policy as well as inform the public about how well different jurisdictions and sectors are managing their greenhouse gas emissions.

2. Ensure that urban areas receive their fair share of climate change-related funding.

Some 60% of the US population lives in cities with over 200,000 residents. While many urban areas are, like New York, already highly carbon-efficient, the fact is that urban areas also contain many of the most cost-effective remaining opportunities for greenhouse gas emission reductions. A study by McKinsey & Company[1] found that, of all opportunities in the United States for carbon reductions that pay for themselves, nearly 40% are in efficiency improvements to existing buildings alone.

However, we also know that, in many cases, state governments do not craft programs that fairly distribute federal dollars to urban areas.[2] While New York City accounts for roughly 40% of New York State's entire energy consumption, only 3% of the state's funding for renewable energy has gone to projects in New York City. The New York State Public Service Commission has now spent nearly a year deliberating on a set of proposals to increase the amount of state funding for programs that address large multi-family and commercial buildings – which are mainly found in urban areas – while it has quickly approved programs that are designed for single-family homes and low-rise apartments. It is not clear that the federal government can rely on states across the country to distribute these funds fairly or efficiently. The allocation of these funds, therefore, must be required to be equitably distributed to urban areas.

a. State Energy and Environmental Development (SEED) account allocations. ACES would create a multi-billion-dollar program to distribute funding to states through newly created "SEED accounts" (section 132). Funding for this program would come from the allocation to states of emission allowances; distribution among the states is made on the basis of population and energy consumption, which makes sense. The bill allows states to use the proceeds of the allowances to invest in energy efficiency, renewable energy, code enforcement, smart grid development, transportation planning, and other projects. Implicitly acknowledging that states may not include cities in their program, the bill requires that states allocate 12.5% of the proceeds to cities, distributed among cities in each state on the basis of population.

---

[1] McKinsey & Co. (2007). *Reducing Greenhouse Gas Emissions: How Much at What Cost*. December 2007. 40% figure calculated based on the following figures and calculation:

-1.3 gigatons CO_2e/year can be abated at a cost of less than $0 per ton CO_2e in the U.S.

-0.5 of those gigatons CO_2e exist can be abated in the buildings and appliance sector.

-0.5 / 1.3 = 38.46%

[2] Cooper, M. & Palmer, G. "Cities Lose Out on Road Funds From Federal Stimulus," from *The New York Times*. July 8, 2009.

The 12.5% requirement is inadequate. No language in the bill prevents states from using the rest of their funding in programs mainly designed for rural areas, or designed more for economic development than cost-effective carbon reduction. The widespread practice of imposing per-project or per-proposer caps on the size of individual grants also works against urban areas, because larger buildings mean larger projects, even if the cost per ton of carbon saved is lower.

In response to this, the US Conference of Mayors has proposed allocating 40% of the SEED allowances to cities, utilizing the successful Energy Efficiency and Conservation Block Grants (EECBG) that were included in the Energy Independence and Security Act of 2007 and funded by the American Recovery and Reinvestment Act of 2009 (ARRA), as the distribution mechanism. Under EECBGs, cities were allocated funds directly, and municipal governments were empowered to direct funding within certain constraints; New York City's application to the US Department of Energy for the use of its funds included the retrofitting of municipal buildings, and the creation of a $16 million revolving loan program for energy efficiency upgrades in privately-owned buildings.

Another approach, which could be equally effective, would be to require that states demonstrate each year that their programs are allocating funding fairly. To be consistent with the goals of a climate change bill, it could allow two definitions of fairness in funding distribution. One would be that funding within each state roughly corresponded to the ACES metrics of population and/or energy consumption. Another would be to show that each state's funding is being allocated in a way that prioritizes projects according to the relative cost-effectiveness of investments in terms of dollars per ton of greenhouse gas emissions reduced. Although section 132(d)(5) currently stipulates that States must demonstrate the cost-effectiveness of projects in which they invest, it fails to ensure that states prioritize *more* cost-effective projects over *less* cost-effective projects. Such a protection would ensure that state programs are designed in ways that direct funding where it can most efficiently achieve the bill's goals.

b. Per-building caps on SEED grants. The final version of ACES passed by the House provided that SEED grants be capped at $1000 per dwelling unit for each 10% improvement over baseline (section 202). This is appropriate. However, it is important to note that the version of the bill reported out of the House Energy and Commerce Committee included a provision that capped these grants on a per-building, rather than per-unit, basis; this would have essentially limited its application to single-family homes only and thus discriminated against cities with multi-family apartment buildings and the substantial energy savings they represent. The Senate must not revert back to that formulation.

c. Climate change adaptation funding formulas. Section 453 of ACES provides funding for climate change adaptation planning by state governments. However, rather than allocating such funding on the basis of risk or the potential severity of climate change impacts, it does so based on population and inversely with income. While all parts of the United States are at risk for some impacts of climate change, some areas will

be impacted to a greater degree than others. Many of the most catastrophic potential risks are on the coasts; the disaster of Hurricane Katrina demonstrated that dense urban areas face particular challenges in dealing with climate events. Further, strengthening the infrastructure of large cities to respond to climate change is likely to be among the most complicated and expensive adaptation tasks facing the nation. Thus, it is critical that funding be allocated based on risk and impact, not just on population and income. Models exist for assessing these potential impacts, and are in use by the insurance industry. In addition, risk-based allocation is one of the central tenets of homeland security funding, where resources are distributed according to vulnerabilities, likelihood of impacts, and magnitude of consequences. It is important that the Federal government use these models to ensure that states and cities receive funding appropriate to the challenges they face. Finally, as mentioned earlier, 15% of adaptation planning funds should be set aside as competitive grants to be distributed among cities with populations of over 500,000 residents.

3. Make carbon markets work effectively by providing flexibility and transparency rather than undermining the cap or stifling innovation.

The United States needs a robust, reliable market in emissions credits in order to achieve the emissions reduction goals established in ACES. Two risks exist that could undermine the market's effectiveness: a lack of depth and liquidity in the market, and a lack of transparency about the market. Both could lead to erratic pricing, speculation, and failure.

ACES currently attempts to prevent a shortage of taxable credits by retroactively crediting emissions reductions, which adds artificial volume to the market while essentially undermining the cap. A better approach would be to be more lenient in the definition of additionality for <u>future</u> reductions by providing incentives for cities and states to use local requirements and still generate taxable credits (as mentioned in section 1(d) above). While these would not meet the definition of additionality currently on ACES, they would bring the U.S. closer to the carbon reduction targets in ACES, which retroactive credits clearly would not do.

In addition, ACES needs to allow regulators the flexibility in rulemaking to ensure that emissions credits do evolve into a functioning and transparent market. An overemphasis on standardization in the first years of the system may inhibit trading volumes and prevent the development of carbon finance products that the market will find most useful. Transparency and flexibility are not mutually exclusive, and ACES must recognize that.

a. Retroactive credit for voluntary reductions. Section 740 of ACES gives retroactive credits to voluntary offset projects already undertaken since 2001. This provision – especially with the low standard of rigor that the section envisions – undermines the *future* carbon reductions that are the entire point of the bill. The provision is not even fair to all those who have voluntarily done the right thing and acted in advance of a national climate policy; entities that have reduced their emissions relative to baseline growth since 2001, but failed to maintain the paperwork required by ACES to demonstrate their achievement, would either be ineligible or incur sizable costs to recreate the paperwork.

New York City itself would probably experience the unfairness and futility of section 740. Although the City has invested roughly $200 million in efficiency improvements in City buildings since 2001, it is unclear whether the City would be able to realize the value of offsets created by its activities. Our efforts have been guided by the economic payback of these reductions, as well as the overall policy goal of reducing emissions. Some companies have realized tremendous advertising and public relations value from being climate leaders; others have received additional forms of non-cash support from governments and charitable entities. It would be impossible to document fairly what has, and has not been, already compensated. As a result, any grandfathering so generous as to be fair to all would also be so lax as to dilute the value of the emissions credits entirely. As a result, the only fair way is to grandfather only those offsets certified by a formal, mandatory program (already provided for in section 790) and to eliminate section 740 altogether.

b. Credit future reductions required by local laws. As previously outlined in 1(d) above, ACES would disallow carbon reduction efforts done in compliance with local laws from being eligible for carbon offset credits. This overly-restrictive definition of additionality could contribute to a shortage of high quality offsets in the early years of the emissions market. Offsets and other financial instruments can be effective mechanisms to minimize the cost of emissions reductions nationwide. Offsets add volume, which is essential to stabilize a carbon market, and can help ease the economic pressure on capped entities that have difficulty reducing their own emissions. By disallowing offsets complying with local laws, ACES will limit the number of offsets available to support the emissions market and prevent investments in those offsets likely to be of the highest quality—as offsets in response to local laws will be subject to public review and scrutiny. In contrast, the crediting of already-achieved emissions reductions is the equivalent of counterfeited currency; they will undermine confidence in all emissions offsets if they are allowed.

c. Ensure liquidity in early years. An efficient cap and trade system should allow flexibility in the early years to ensure that new carbon finance products have the time to develop. It is critical that the final version of ACES balance the need for transparency and regulatory oversight with the need for a robust, functioning market by providing regulators flexibility in the rulemaking process to create an effective market.

d. Carbon tariffs. Trade-exposed US industries are rightfully concerned that carbon regulations will put them at a competitive disadvantage to firms in nations without regulations. Such concern might encourage domestic firms to relocate to countries without regulations, resulting in carbon leakage and harm to the US economy. To confront this problem, section 768 of ACES requires that any nation lacking greenhouse gas regulations by the year 2020 purchase international reserve allowances from the EPA in order to export certain carbon-intensive goods into the US. This is a dangerous provision with the potential to severely hamper UNFCC COP-15 negotiations in Copenhagen this December. Imposing carbon tariffs on foreign imports will only lead the US into a war of economic protectionism with carbon-intensive developing world

economies. A better approach to preventing carbon leakage and aiding US firms would be to increase the allocations of allowances under sections 765, 793, and Subtitle D of Title IV of ACES. Section 765 provides aid to trade-exposed US industries, helping them compete with unregulated foreign competitors. Section 793 provides aid to US workers in polluting industries that the legislation impacts, by training and placing them in newly created jobs in clean tech industries. Lastly, Subtitle D of Title IV allocates funding to a range of projects with the goal of promoting clean technologies in developing countries without emission reduction targets. This will help to limit carbon leakage and promote sustainable development in the third world.

Recommendations

In summary, the following changes would significantly improve the American Clean Energy and Security Act:

1. **Empower city governments to play the roles for which they are the best-suited level of government, and in which they are already taking aggressive steps.**
   a. Code enforcement. Amend section 201 to provide for 75% or more of funding for building code enforcement be distributed to those governments actually responsible for enforcement; add a provision to require that states use building area (square feet) rather than number of structures as the basis of distribution; and ensure that no per-building cap exists on the cost or funding per inspection.
   b. Property tax assessment financing. Add a provision to section 132 to facilitate PACE funding by making states' SEED grants contingent on their certification that municipal governments have been given the authority to create loan programs making it possible for property owners to borrow money for eligible energy efficiency and renewable energy projects to be repaid by lienable additions to their property tax assessments.
   c. Efficiency labels for existing buildings. Amend section 204 to include existing buildings in the required building labeling program, and a set of realistic but rigorous timelines for the necessary benchmarking, audits, and disclosure.
   d. Allow credits for future reductions required by local laws. Amend section 734 to exclude from eligibility for offset credit generation on the basis of additionality only those projects by non-covered entities 1) in compliance with laws already in force as of January 1, 2009; or 2) receiving funds derived from emissions credit allocations provided under this Act. This broader definition of additionality could sunset after ten years.
   e. Fuel-efficient taxis. Incorporate amendments to the Clean Air Act and the Environmental Policy and Conservation Act to allow state and local governments to impose efficiency requirements on taxi and car service vehicles.
   f. Transportation planning. Incorporate the intent of CLEAN-TEA (S. 575), with a portion of its funds dedicated to transit-oriented planning and the creation of walkable and bikable neighborhoods.
   g. Climate change adaptation planning. Amend section 453(f) to require climate change implementation plans of each municipal government with a population greater than 500,000, and 250,000 for coastal cities. To fund these efforts, section 453 (c) (1) should set aside 15 percent of all allowances for adaptation planning for a competitive grant program to these jurisdictions. (The portion of the US population living in cities over 500,000 is 15 percent.)
   h. Federal Emergency Management Agency (FEMA) flood maps for climate change adaptation**.** Amend section 451 to require FEMA to update the national flood plain maps regularly, and to require the development of prospective maps incorporating expected future sea level rise.
   i. County Greenhouse Gas Inventories. Amend section 713 of ACES to require EPA to develop county-level inventories of greenhouse gas emissions.

2. **Ensure that urban areas receive their fair share of climate change-related funding.**
   a. State Energy and Environmental Development (SEED) account allocations. Amend section 132 to include either a provision directing 40% of the credits to cities utilizing the EECBG as the distribution mechanism; or insert a provision requiring states to demonstrate that their programs are distributing funds according to population, energy use, or cost-effectiveness of carbon reductions. Also, amend section 132 to prevent states from imposing per-project or per-proposer caps on SEED funding projects instead of cost-effectiveness limits.
   b. Per-building caps on SEED grants. Preserve the provision in section 202(i)(2) in the House-passed version of ACES to ensure that SEED grants to residential buildings are capped on a per-dwelling unit basis, not a per-building basis.
   c. Climate change adaptation funding formulas. Amend section 453(c)(1) to allocate climate change adaptation funding among states based on risk and impact, rather than population and income and set aside 15 percent of all allowances for adaptation planning for a competitive grant program to cities with a population over 500,000 and coastal cities over 250,000.

3. **Make carbon markets work effectively by providing flexibility and transparency rather than undermining the cap or stifling innovation.**
   a. Retroactive credit for voluntary reductions. Delete section 740, and maintain the standards for eligibility for past emissions reductions currently envisioned under section 790.
   b. Credit future reductions required by local laws. As recommended in 1(d) above, expand the pool of potential future credits by amending section 734 (a)(1)(A) to exclude from eligibility for offset credit generation on the basis of additionality only those projects by non-covered entities in compliance with laws already in force as of January 1, 2009.
   c. Ensure liquidity in early years. Amend Title III, Subtitles D and E to provide regulators sufficient discretion to ensure that the emissions market can develop effectively.
   d. Carbon tariffs. Eliminate section 768 of ACES to remove the threat of trade wars based on carbon tariffs. If necessary, increase the allocation of credits provided through sections 765, 793, and Subtitle D of Title IV.