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Global Warming: The Local Response

Delivered in Hamburg, Germany, Thursday, November 29th, 2007

Thank you, it is a great pleasure to be here in Hamburg. It is an extraordinary privilege to be here among so many distinguished guests and officials. I look forward to sharing with you my perspectives on the interface among climate change, energy and economic development and the ways in which cooperation among regional councils on both continents is essential to a meaningful effort to heal the planet.

Let me start by saying that, in general, conflicting perspectives, confrontational tones and divergent views on climate change and energy conservation often define the transatlantic relationship at the *national* level. Differences persist between Europe and the U.S. over international and national-level cap-and-trade policies, emissions targets and other climate and energy-related topics.

However, at the *sub-national* level, a dynamic and positive set of relations between European and American climate and energy actors is evolving, characterized by generally productive results and positive tones. In the absence of federal-level leadership on climate change and sustainable energy from Washington, creative policy entrepreneurs and practitioners in the Northeast, Midwest, California and Northern Virginia have launched their own local renewable energy, energy conservation and climate initiatives with relatively ambitious goals.

I don't have to tell you that the Bush administration has abrogated its responsibility to act decisively and reduce greenhouse gas emissions. You are already aware that President Bush has not only questioned the scientific consensus on climate change, but worked to undermine Congressional attempts to cut greenhouse gas emissions. Even though Texas established an aggressive Renewable Portfolio Standard under then-Governor Bush, as President Mr. Bush has resisted establishing a nationwide Renewable Portfolio Standard. The administration's persistent denial of the overwhelming scientific evidence of global warming has cost us seven years of international cooperation.

I represent a county of one million residents that is located at the fall line of the Potomac River, a major tributary of the Chesapeake Bay. The Chesapeake was once one of the most fecund estuaries on earth, with a profusion of blue crabs, oysters, and shad. Engravings from the early colonial era depict Native Americans spearing shad and rockfish, an easy task when the water was writhing with fish. When colonists arrived in Virginia, they said the fish were so prolific that one could walk across the river on their backs without getting wet above the ankles.

Today the Chesapeake is growing warmer, and scientists predict that it may not be long before water temperatures approaching 80 degrees Fahrenheit create dead zones in the Bay stretching for dozens if not hundreds of square miles. The blue crab population has already plummeted to the lowest levels ever recorded. We are poised to extirpate the most fertile Bay on the East Coast if we do not act soon.

The Washington DC area, where Fairfax is located, produces 65.6 million metric tons of CO₂ annually. That is more than Sweden, even though Sweden has nearly twice the population of the Washington metropolitan area. Our historically inefficient use of energy is tied to both transportation and electricity generation; in Virginia, there has been an over-reliance on roads for urban transportation and coal fired power plants for electricity.

In August of 2005 a Class 3 hurricane hit New Orleans, causing one of the greatest losses of life and property of any hurricane in US history. The hurricane wiped out whole neighborhoods of the city, stranding thousands of people without food and water while permanently displacing thousands more. The disaster's toll was even greater because of the Bush Administration's response, which was delayed for days and then, once implemented, astonishingly incompetent. One result of rising ocean temperatures is the increased incidence of severe hurricanes. For 300 years New Orleans has survived and prospered in a vulnerable area, despite the fact that much of the city is below sea level and that Army Corps of Engineers dredging and levee projects have reduced the extent of tidal wetlands which used to protect the city from hurricanes. Whether the United States' most historic Mississippi port and the birthplace of jazz can survive rising sea temperatures and more severe hurricanes is questionable. As a wound that was partially self-inflicted, Katrina catalyzed in the public's mind the connection between global warming and the increased incidence of severe weather.

Given the intransigence of our national government on this critical subject, local governments have taken action. We have the opportunity to create an ideal partnership between the Northern Virginia Regional Commission and Verband Region Stuttgart, wherein we can collaborate on climate and energy initiatives.

This summer Fairfax County, the Sierra Club, and other counties from across the country unveiled the Cool Counties initiative. Cool Counties sets a greenhouse gas reduction target of 80% below

current levels by 2050, with stabilization of emissions by 2010. This target is consistent with recommendations by the Nobel Prize winning International Panel on Climate Change, as well as with those of the eminent climatologist James Hansen of the Goddard Institute. Since counties in the United States do not regulate emissions from automobiles, lawn or garden equipment, or power plants, we have limited regulatory options for reducing greenhouse gas emissions. Therefore, Fairfax County created a best practices template so that counties of all sizes and demographic profiles can select a comprehensive set of policies to reach the greenhouse gas emissions reduction target.

For example, counties can construct their own government facilities according to green building principles. We are indebted to our regional partnership with Stuttgart for the trans-Atlantic export of green roof technology—one component of green buildings. Fairfax County uses green building criteria established by the United States Green Building Council, called Leadership in Engineering and Environmental Design, or LEED. LEED buildings are characterized by ample natural lighting, highly efficient insulation, vegetated or painted white roofs, passive solar heating, and enhanced stormwater management devices like infiltration trenches and bioretention basins. One recently completed green building, a fire station, will save 22% on energy costs annually, and will have a 17 year overall payback. Based on a projected 40 year lifespan of this building, using green building techniques will save County taxpayers over \$300,000.

Constructing new buildings to LEED standards complements county efforts to make energy efficiency retrofits for county facilities and to buy wind energy. Energy efficiency retrofits reduce greenhouse gas emissions while saving over \$1 million dollars per year for the county. We are also increasing our wind power purchase from 5 to 10% of the county's load, which will reduce our carbon emissions by 6 million tons annually. Virginia has over 33,000 megawatts of economically recoverable wind energy, including 750 megawatts of class 4 wind resources in our mountains. I invite Re-Power, Vestas, and other European companies to make their renewable energy investments in Virginia, which has tremendous untapped potential. For example, the continental shelf on Virginia's coast has approximately 30,000 economically recoverable megawatts of power.

I was impressed to learn about Hamburg's solar shuttle, which generally generates more energy than the boat needs, which is then fed back into the electric grid. In addition to exceptional opportunities to generate power from wind, Virginia also has the potential to capture 11,000 megawatts of solar energy using roof integrated photovoltaics. Virginia ranks 15th nationally in wind energy investment and job creation. We are fortunate to have a Governor who has refocused our energy policy on renewable sources of energy, with the states's first ever Energy Plan, which addresses renewable energy generation and climate change. I hope that Governor Tim Kaine's emphasis on renewable energy, in concert with local initiatives, will encourage solar firms like Conergy, headquartered here in Hamburg, to invest in Virginia.

Our local government will soon vote on green building incentives for the private sector. These incentives will include advantageous tax rates for energy efficient buildings and building permit rebates. Because the private sector constructs, owns, and operates far more buildings than the County, green building incentives or regulations are a critical component of any greenhouse gas reduction policy, since the operation of buildings is responsible for approximately one third of greenhouse gas emissions in the United States. These incentives are particularly meaningful because Northern Virginia is one of the fastest growing regions in the United States. These incentives will mirror some of those already in place in Germany. For example, many towns in Germany charge a stormwater utility fee that can be reduced according to a building's ability to reduce stormwater runoff through use of a green roof. Green roofs also significantly reduce energy consumption by dramatically increasing the roof's insulating capacity and by dissipating roof heat in the summertime.

Fairfax and other counties have also been replacing conventional gas vehicles with hybrids and hybrid-electric cars. The 99 hybrids owned by Fairfax reduce the County's greenhouse gas emissions by over 185 tons per year and reduced gasoline usage by over 18,000 gallons. By using less gasoline, these cars have a 4 to 5 year payback, so that for the last few years of their lifecycle they are actually saving taxpayer money. The County also purchased a plug-in hybrid, which can travel over 100 miles per gallon, running the first 30 miles on electricity alone.

While County efforts are important, the plurality (41%) of greenhouse gas emissions in the Washington DC metropolitan area come from transportation. Our region has almost no heavy industry, and is covered by suburban sprawl. Characterized by a segregation of uses, vast parking lots, wide arterial roads, and a paucity of bike lanes and sidewalks, sprawl is driving the increase in greenhouse gas emissions from the DC area.

One component of Cool Counties, Land Use, addresses this problem. By re-focusing development around transit nodes, by encouraging urban design consistent with smart growth principles, and by investing in transit rather than highway infrastructure, we can reduce the dependence on the automobile and associated greenhouse gas emissions. Neighboring Arlington County established a national model for this type of smart growth in the Rosslyn-Ballston Metrorail corridor, transforming sprawl into high density, walkable, attractive neighborhoods and all but eliminating previously predicted additional traffic congestion.

In Fairfax, the Board of Supervisors has approved numerous transit-oriented, mixed use, smart growth developments that reduce the demand for development on the urban fringe while reducing our constituents' dependence on the automobile. Currently, the county is replanning Tysons Corner, the second-largest job center in the DC metro area. From a sea of parking lots, highways, and Le Corbusier-style office towers, we aim to transform Tysons into a livable urban area with

walkable streets, pedestrian connections, and public parkland, anchored around four metro stations that will accompany the extension of the Metrorail's Silver Line.

We have not only approved transit oriented developments, but made transportation investments to connect them. For example, we approved a Comprehensive Bicycling Initiative, with dedicated staff, to examine the County's land use and transportation policies holistically to ensure that bicycle accessibility is taken into account for every project. As a result, nearly all new developments have numerous public bike racks, many of which are sheltered, just as you would find in Amsterdam or here. We recently retrofitted our entire bus fleet with bicycle racks. We are also creating bike lanes along critical corridors, and have created a comprehensive County bike map so that commuters can find the safest, most efficient routes to work.

I have been exhorting my colleagues from across the United States to sign on to Cool Counties, and frankly most of them don't need to be convinced. It is no coincidence that some of California's largest counties, such as Alameda, have signed on: Rapid loss of the Sierra Nevadas' snow pack poses an immediate and dire threat to California's agricultural economy, the largest in the nation, as well as its vast cities. This summer California has experienced wildfires several orders of magnitude larger than those witnessed in the past, destroying countless homes. We are all experiencing firsthand the perils of increased incidence of severe weather and rising temperatures.

Nassau County, New York also signed Cool Counties. Nassau has some of the oldest suburbs in the country, including the archetypal Levittown, built for returning soldiers after WWII. Many Nassau residents commute to New York City every day to work. With much of Manhattan less than 30 feet above sea level, rising water levels could eventually threaten the United States' financial capital.

Cook County, Illinois also signed Cool Counties. With a population exceeding 5 million, Cook County is the second largest county in the United States, and includes the city of Chicago. In 1995, a record heat wave hit Chicago, killing over 600 people, in a grotesque foreshadowing of the heat wave that would kill thousands here in Europe in 2003.

Local elected officials from across my country have felt the impacts of global warming firsthand. Rather than look for excuses for inaction, we are using all the tools at our disposal to reduce greenhouse gas emissions.

From transit oriented development to hybrids in the vehicular fleet to landfill gas to energy to wind power purchases, we are already making a difference. Counties representing over 25 million Americans have signed onto Cool Counties, in addition to the over 600 cities that have signed the analogous Cool Cities agreement. Even though we don't control power plant emissions or

automobile fuel efficiency requirements the collective efforts of the United States' 3,066 counties can have a significant positive impact.

Today there is federal legislation that would reduce greenhouse gas emissions by 70% by 2050 using a cap and trade program. This legislation contains a legally binding target of stabilized emissions by 2010, a critical interim target. Standing here in Hamburg, a city with countless green roofs, efficient mass transit, and beautiful, walkable neighborhoods, and 7% of your energy coming from wind, I know that we have the technological and cognitive capacity to achieve climate stabilization.

Unfortunately, without concerted federal action and a commitment to greenhouse gas reductions analogous to those in Cool Counties, we will not be in a position to address explosive emissions increases from China and India. Frankly Europe is far advanced and leads the way in the global vanguard to stem the rise in and reverse global warming. While I am inspired by the myriad creative and courageous steps local governments in America have taken to fight global warming, I am humbled by our ultimate reliance on the federal government to enter into the binding international agreements that will be necessary to avert the catastrophic consequences that will result from the absence of collective international action to address the greatest danger facing the world today.