

**Testimony by Mayor Pegeen Hanrahan of Gainesville, Florida  
for the U.S. House of Representatives Select Committee  
on Energy Independence and Global Warming  
June 19, 2007**

Good Afternoon, Chairman Markey and Members of the Select Committee. Thank you for your service to our nation, and for the opportunity to speak with you today regarding mayoral initiatives to reduce global warming pollution. Your invitation asked that I address the questions of why global warming has become an important issue in our city, which local programs have successfully reduced greenhouse gas emissions, and what state or federal policies would assist local communities in the fight against global warming.

**Why Global Warming has become Important in Gainesville, Florida**

Gainesville is most distinguished as the home of the University of Florida, our state's flagship public research university. UF has an enrollment of nearly 50,000 students, making it the fourth largest university in the United States, and ranking in the top twelve public universities in research dollars. With prestigious programs in agriculture, engineering, and life sciences, among others, UF is a source of primary research regarding the potential impacts of climate change and opportunities to create a most optimistic alternative future.

We are fortunate that our citizens are actively engaged in local decision-making processes, including those related to Gainesville Regional Utilities, our municipally-owned supplier of electric power, water, wastewater, natural gas and telecommunication services. GRU is the fifth largest municipal electric utility in Florida, serving approximately 89,000 residential, commercial and wholesale customers. In 2003, we started a detailed public decision-making process regarding our future power-supply options, as our population is steadily growing and our existing energy resources, comprised of a 220 MW coal power plant and 380 MWs of natural gas power plant capacity, are not expected to fully cover our energy demands through the next decade. Based primarily on existing economic conditions, our utility staff originally recommended we expand our coal capacity, using what could be characterized as a well-accepted "clean coal" technology.

In the course of the public dialog, however, our citizens and our city commission became increasingly concerned about both the economic cost and the environmental impact of expanding our coal-based electrical generating capacity. We started to review other alternatives, and today we are on a path toward dramatically increased energy conservation programs, a biomass-based power plant, and new collaborations with other utilities, the agricultural and sivicultural industries, and energy entrepreneurs. Last Monday night, we made the decision to move forward with a request for proposals for meeting our future energy needs through some combination of carbon-conscious technologies. We are excited by the opportunities, and are examining everything from burning waste wood from sustainable forestry operations, to producing energy from municipal solid waste using cutting edge plasma arc technology. But first, we are seeking to maximize our community's

opportunity to save energy. I will outline some of the programs we are providing for this purpose in a moment.

A second powerful motivator for our community's concerns regarding global warming surrounds the climate changes we are already seeing in our state. Despite being an inland community, Gainesville has suffered dramatic impacts from Florida's recent extreme weather, most notably by Hurricanes Frances and Jeanne in 2004. During the first of these storms, we lost approximately 70% of our electrical grid, and many residents were out of power for several days. Due to our heavy tree cover, numerous structures suffered substantial damage, including my parents' house, which had a large oak limb through the roof. In my husband's home community of Pensacola, more than 16,000 homes were severely damaged or destroyed in the storms of 2004 and 2005. In reality, Florida's coastal communities like Pensacola are at far greater risk than inland cities like Gainesville, with the potential threat of sea level rise likely putting much of our valuable coastal real estate under water.

As you know, based on both past experience and future unpredictability, Florida is suffering through a major insurance crisis. Even those of us who have never made claims against our policies are seeing our insurance bills rise 30% or more, or are being dropped by our insurance companies. Our legislature has pledged to subsidize high-risk properties through a government-created insurer of last resort, thereby spreading risk to all Floridians, not just those in the path of the storms. As a native of Florida, I've seen the shift in weather patterns even within my own memory, with warmer winters, hotter summers, stronger storms and protracted droughts. This is impacting our agricultural industry, and Florida is the nation's fifth leading agricultural state with about 1/3 of our 35 million acres devoted to agricultural production.

In summary, our community has become concerned about climate change because it is affecting our pocketbooks, our sense of security, and the very food we eat.

### **Which Local Programs are Successfully Reducing Greenhouse Gas Emissions**

As a higher education community, Gainesville believes in harnessing the power of innovation to solve challenging problems. We are applying cutting edge technologies and adopting creative programs to give our citizens the opportunity to reduce their energy usage and lower their utility bills in the process.

For example, we are providing residential incentives for upgrading the efficiency of air conditioning systems, repairing leaks in air ducts, adding heat recovery units to electric water heaters, applying reflective roof coatings to mobile homes, adding insulation, trading in older refrigerators and room air conditioners, installing solar electric photovoltaics, and converting to solar water heaters, among others. Lower income customers have access to whole house renovation programs and energy surveys, and on-site light switch-outs, with local disadvantaged high school students going door-to-door to install compact fluorescent bulbs in lower income neighborhoods. Soon we expect to be offering low interest loans to enable customers to upgrade appliances and make home renovations.

For our business customers, we are providing rebates of up to \$40,000 per location for up to 50% of the project costs to install customized energy conservation measures. These can include lighting replacements, HVAC upgrades, motors, controls, and so on. We have a program to replace incandescent and even fluorescent exit signs with more efficient LED's, and we even have a program to help save energy in vending machines with free "vending misers," which uses occupancy and temperature sensors to turn machines off during periods of inactivity. We are working with major national retailers like Home Depot and Lowe's to provide discounted compact fluorescent bulbs and room air-conditioner exchange events, and today we are working with a large discount "big box" retailer to put a substantial solar photovoltaic array in the parking lot of one of their new stores, thereby creating enough energy to power 60 homes while providing hundreds of shaded parking spots. We're also providing a highly energy-efficient combined heat and power generating station for the new Shands Cancer Hospital in Gainesville, and are planning a district cooling system for University Corners, an eight story, three block hotel, condo, and retail redevelopment in our city's core.

Along with these new initiatives, Gainesville has a long history of public policies and projects that reduce greenhouse gases. For example, we have a landfill gas-to-energy project that captures methane from our closed county landfill. Methane has approximately 23 times the greenhouse warming effect as carbon dioxide. We also re-powered an older steam power plant into a combined cycle natural gas plant, thereby greatly reducing emissions, and we've upgraded the transformers in our power distribution grid to reduce line losses of energy.

During my own tenure in office, between 1996 and today, our bus system has gone from carrying about 1.5 million passengers per year to almost 9 million passengers per year, reducing automobile trips, improving traffic congestion and limiting the need for new parking facilities. This has been primarily through a partnership with the University of Florida. We have a green building program that provides incentives to local builders, and have incorporated green building and energy efficiency incentives into our community redevelopment tax abatement programs. Also, we have long encouraged best practices with regard to transportation and land use planning by advocating mixed-use development, urban infill, bicycle facilities and pedestrian-friendly design in our city. We are currently implementing a traffic management system that will use cutting-edge technology to synchronize all of the traffic signals throughout our city to improve the efficiency of traffic flow, thereby reducing tailpipe emissions, saving gas for our citizens, and even enabling creation of a wireless internet web throughout most of our city. The signals themselves will also be converted entirely to LED's, saving energy in that way as well.

For many years, we've had a robust land conservation initiative, strong tree protection ordinances, tree giveaways, and a tree planting program that insures at least 1000 trees per year are planted by the city within our municipal boundaries. With respect to our own city operations, we are actively reviewing opportunities for improving energy efficiency and reducing fuel usage throughout city government. I've even reached out to my friend John

Marks, the Mayor of Tallahassee, which is the home of our main football rival, FSU, to challenge him to a friendly competition in energy efficiency. Our Gators have become the undisputed victors on the football field and basketball court, currently holding both championship titles in men's collegiate athletics, so we need to find other arenas of competition where there's still a challenge. On a more serious note, we are also working with our county of Alachua, which has empanelled the Energy Conservation Strategies Commission, an expert volunteer group that is charged with creating an exhaustive list of specific policy recommendations that local government can implement to reduce per capita energy consumption. We also expect to participate in an upcoming global warming summit planned by Florida's Governor Charlie Crist.

While you can see that Gainesville is enthusiastically embracing the challenge and opportunity presented by climate change, the results to date fall somewhat short of where they need to be, if we are to collectively address this enormous threat to our local, national and international security. As a signatory to the U.S. Conference of Mayors' (USCM) Climate Protection Agreement, our intent is to meet or beat the greenhouse gas emission reduction targets suggested for the United States in the Kyoto Protocol, a 7% reduction from 1990 levels by 2012. Despite the many programs I've outlined, we are not quite on target to meet that goal. Frankly, energy use per capita has been rising, not falling, throughout most of the U.S., and Gainesville is no exception. Our estimate is that to meet the USCM's agreement goal, our community will need to produce no more than 1.75 million equivalent tons of CO<sub>2</sub> per year by 2012. If we stay on track at our current fuel mix and levels of consumption, we estimate that we will actually be producing 2.77 million equivalent tons of CO<sub>2</sub> per year by that date, 1.02 million tons over our goal. In order to meet the target, we will need to reduce our generation of greenhouse gases by an additional 36.8%.

Put this in context of the fact that all of the already implemented programs I've described, in energy efficiency, transit, forest conservation, re-powering of an older power plant, landfill gas to energy, solar programs and so on, add up to about 250,000 equivalent tons of CO<sub>2</sub> per year. With our new traffic signal synchronization system, and the expanded energy saving programs I've described, we expect to add another 260,000 equivalent tons of CO<sub>2</sub> reductions per year by 2012. That still leaves us 510,000 tons short of our USCM goal (a 22.6 shortfall). Also, consider that our estimated 1999 CO<sub>2</sub> production rate in the residential, commercial and transportation sectors is about 15.6 tons/person/year, as compared to the U.S. average of 24.5 tons/person/year. In other words, even though we believe that Gainesville citizens are only producing 64% as much carbon dioxide as the average U.S. resident, and even though we are implementing numerous programs to reduce emissions, we need to increase our efforts if we are to meet the goals scientists believe are necessary to avert dramatic changes to our global climate. This is where you, our leaders in the U.S. Congress, can help.

## **What State or Federal Programs Can Do to Assist Local Communities in the Fight Against Global Warming**

First, we wish to add our voice to that of other cities and counties urging Congress to pass the proposed Energy and Environment Block Grant, as sponsored by Representative Wynn in H.R. 2447. Many of the energy efficiency and other carbon reduction programs I've described are capital-intensive, and require several years to show a return on investment. Less fiscally strong communities are unable to fund such programs, and we are unable to fund them to the extent we'd like. The new Energy and Environment Block Grant program, modeled to be similar to the Community Development Block Grant (CDBG) Program, would make funds available to local communities to tailor energy saving programs to their individual needs. The initial authorized funding is proposed at \$4 billion annually, roughly equivalent to the CDBG funding level.

Also, as a member of the American Public Power Association, our city supports the legislation to extend and improve the Clean Renewable Energy Bond (CREB) program. We urge your support of HR 1821, introduced in the House by Congressman McDermott (D-WA). The bill adds a new definition of "public power entity" to the definition of a qualified CREBs issuer to ensure that public power systems will receive a more appropriate amount of CREBs, as Congress intended. The bill also makes a number of technical changes to the CREBs program to improve its efficiency and its ability to attract public power investment in renewable energy projects. Extension and improvement of the CREBs program are essential steps in enabling communities like ours to participate in achieving our common goals of U.S. energy independence and a reduction in greenhouse gas emissions.

Congress also can assist local governments in reducing carbon emissions by increasing access to capital and operating funds for transit systems, pedestrian and bicycle facilities such as urban trails, and traffic management systems to synchronize lights and reduce idling in traffic.

Congress can encourage protection of agricultural and natural lands, and related redevelopment of cities, through continuation and expansion of federal incentives for conservation easements, acquisition of natural lands, and transfer of development rights programs that create economic incentives for shifting development from low density suburban fringes to urban core areas.

We also believe that Congress should work with the states and the building industries to strengthen building codes to require maximum energy efficiency. Those areas of our nation that are controlling demand growth for new energy are doing so in great measure through better building codes. The state of California and cities such as Austin, Texas and Burlington, Vermont clearly demonstrate that substantial energy savings are achievable through better building codes. The American Institute of Architects (AIA) estimates that almost 50% of all U.S. greenhouse gas emissions come from buildings, so addressing building standards is of critical concern.

The federal government must also aggressively increase energy efficiency standards for appliances, equipment, and vehicles, including raising fuel standards for cars and trucks. We believe that if Congress requires better efficiency, which is clearly possible through better engineering, American industry and ingenuity will respond in the same way we put a man on the moon through the vision of President Kennedy.

We have observed the success of pollution credit trading programs in meeting Clean Air Act standards, and believe that there is a place for a carbon credit trading program in meeting our greenhouse emission reduction goals as well. By creating an economic value in reducing pollution, we provide a market incentive to do so.

We also encourage you to continue and expand tax credit programs and other incentives that encourage implementation of energy efficiency measures in homes and businesses, purchases of higher efficiency automobiles, and other carbon reduction efforts. We have frequently steered our residential and commercial utility customers to the IRS resources on energy efficiency tax credits, which can often make or break the cost effectiveness of a particular private sector project.

Chairman Markey, again, I thank you for the opportunity to speak with you today, and congratulate you on your commitment to address this critical issue. I am happy to respond to any questions the committee may have.