Testimony to the US House of Representatives Committee on Natural Resources Insular Affairs and Energy/Minerals Subcommittees April 12, 2008 By Bevan R. Smith, Jr., Director of the Virgin Islands Energy Office

Good Morning Madame Chairwoman Christensen, Chairman Costa and other members of the two Subcommittees. My name is Bevan Smith Jr. and I have been working with the Virgin Islands Energy Office for 25 years and served in the capacity as Director since 2004. It is a pleasure for me to appear before you today to offer testimony on such a timely subject matter:

## Charting a Clean Energy Future for the Insular Areas

The U.S. Virgin Islands is an unincorporated territory of the United States located in the Lesser Antilles islands group between the Atlantic Ocean and the Caribbean Sea.

The Territory faces many of the same problems encountered by all small island nations with our relatively small electric power system, limited interconnection, and generation units that are based on older petroleum fuelled technology with relatively poor heat rates. This is further complicated by reliability criteria that require online generation to maintain high spinning reserve margins in the absence of a supply grid. These conditions lead to excessive costs for the sole electric utility which are further increased by the recent upturn in petroleum prices.

The U. S. Virgin Islands (USVI) currently relies on virtually 100% imported petroleum as the source of its energy. The Territory's generating facilities are included in that slim minority of just 1.6% of the total electricity generated nationwide that utilizes oil-fired plants. Due to the concentration of the majority of the world's oil reserves in countries unfriendly to the US, the growing international demand for oil and the associated increase in the price of oil, the economy of the USVI is highly vulnerable to supply disruptions and energy price increases. This vulnerability is further exacerbated since much of the petroleum is imported from PDVSA - the state-owned petroleum company of Venezuela. The current political instability in that region of the world could result in a severe disruption or curtailment of petroleum shipments to the Hovensa refinery on St. Croix, which is partially owned by PDVSA.

Furthermore, the reliance on imported energy sources creates a large financial burden on the USVI economy. Typically two-thirds of the price of electricity in the USVI is attributed to fuel adjustment charges, all of which is derived from the escalating cost of purchasing petroleum. The dependence on imported fossil fuels forces our residents to pay a higher percentage of their disposable income for energy than residents of the mainland United States. An increasing number are forced to make decisions to either pay for food, medicine, or their utility bill.

High energy cost is driving up the cost-of-living in the Territory by fueling inflation; it serves as a deterrent to business development, and is perhaps the greatest threat to the Virgin Islands economy. It is imperative that this reality is taken into consideration throughout all testimonies to this Joint Oversight Field Hearing on "Charting a Clean Energy Future for the Insular Areas".

The U.S. Department of Energy has been instrumental in the Territory's development of energy programs over the past 34 years through its formula driven Energy Extension Service, State Energy Conservation Program, Institutional Conservation Program and State Energy Program (SEP) grants. The former three grants have been phased out and the SEP continues to supplement funding to the Territorial State Energy Plan. Over the past decade, the USVI has been awarded an average of \$235,000 annually in USDOE formula grant funds, which represents eight percent of each fiscal year's total budget. Program year 2008 will bring \$174,000 to the Territory to assist with the mission of the Virgin Islands Energy Office. Low Income Heating and Energy Assistance Program (LIHEAP) funds are awarded directly to the local Department of Human Services to supplement their Energy Crisis Assistance Program. Significantly. our focus on general energy education programs earned the USVI the 2003 National Energy Education Development State Program Award from the NEED Project.

In charting a clean energy future for the Insular Areas, we need both the Insular Affairs and the Energy and Minerals Resources Subcommittees to address on behalf of all Territories of the United States of America, funding challenges, program priorities, and our unique energy issues. An adequate resolution will bring self-sufficiency through increased utilization of renewable energy technologies and energy efficiency measures. As it pertains to funding issues, the USVI is often inappropriately compared to the continental US when it comes to allocation of energy funds. This comparison is grossly unfair since the USVI is not as densely populated as the continental US, therefore distributing electricity generation costs among fewer utility customers. Electricity rates in the Southeast continental US averages between \$0.05 - \$0.10/kWh while electricity in the USVI is presently \$0.35/kWh and forecasted to be \$0.42 in the near future. Additionally, the USVI is often inappropriately compared to Hawaii when it comes to energy. While the climates of the Pacific and Caribbean islands are somewhat similar, the demographics are starkly different. Hawaii is densely populated and has a highly sophisticated energy infrastructure and a large industrial base. The USVI is not as densely populated and has an increasingly antiquated energy infrastructure. The State Energy Program formula for allocation of funds to the States and Territories has not been updated in over 20 years. The formula was developed when energy costs in the Territory were much lower. To discontinue this inadvertent discrimination the formula needs to be updated to include changes in energy costs, insular location, climate, demographics, etc.

The US Department of Energy's Weatherization Assistance Program (WAP) is the nation's largest residential energy efficiency program. Its mission is to

insulate the dwellings of low-income persons, particularly the elderly, persons with disabilities, families with children, high residential energy users, and households with a high energy burden, in order to conserve needed energy and to aid those persons least able to afford higher utility costs. While the USVI does not require funding to insulate against cold winter temperatures, low-income citizens of the Territory can increase energy efficiency through the insulation of conventional water heater tanks or the installation of domestic solar water heaters to reduce electricity costs. The latter program was successfully implemented by the sunshine State of Florida using Weatherization Assistance Program funds. However, under current law, the USVI cannot participate in the WAP. Even if we were made eligible through an act of Congress, the USVI's portion would be approximately \$25,000 based on the existing formula. Here again is another example of inadvertent discrimination against the Territories when it comes to the allocation and distribution of Federal Funds. This disparity should be corrected and the allocation formula for both LIHEAP and WAP should be updated.

There are specific program priorities that must be addressed in charting a clean energy future for the Territories. We need every opportunity available to improve our energy efficiency, increase the use of renewable energy and to reduce our 100% dependence on imported fossil fuels. As previously mentioned, the USDOE formula grant makes up a relatively small percentage of the overall SEP Territorial State Plan's budget; therefore, participation in the USDOE Competitive Solicitations is necessary. In many instances when the USDOE issues solicitations the Territories are either excluded from competition or the program areas for funding are not applicable or relevant to energy priorities within the particular insular area.

Despite the difficulties of acquiring private partnerships, matching non-federal grant funds, and competing with the 50 states, the USVI has been successful in winning a handful of USDOE Special Projects Solicitation grant awards. We formed partnerships and conducted technical building audits through a Rebuild American Paradise grant; the Building Energy Codes grant was instrumental in the Territory's adoption of the 2003 International Building Codes. Plans are currently underway for an upgrade to a tropical building energy code through a grant to Hawaii on behalf of the Territories; a grant for the development of a distributed generation policy led to a Net Metering policy for the Territory; and a grant to conduct a Wind Energy Case Study provided data that supplemented Wind Mapping efforts of the National Renewable Energy Laboratory and the USDOE Wind Powering America in a recent wind workshop with record breaking attendance by residents of the USVI. The technical assistance was beneficial in showing the potential of each category of the grant award, but due to the lack of funding for actual implementation, no energy or cost savings were realized.

Section 251 of the 2005 Energy Policy Act authorizes the Secretary of the Interior among other items, to make grants to governments of insular areas of the United

States for project plans that include an analysis of a range of options to address energy security projects such as protecting electric power transmission and distribution lines or significantly reducing the dependence of an insular area on imported fossil fuel. There are authorized in the Act, but not yet appropriated, \$6,000,000 for each fiscal year after the enactment. Similar authorization existed in previous EPACTs but no appropriations have actual been made even though the Territorial Energy Assessment Plan has been completed with its findings and recommendations. The Virgin Islands Energy Office and the Water and Power Authority (WAPA) have already employed many of the strategies or projects identified by the Secretary of Energy as having the greatest potential for reducing the dependence on imported fossil fuels. Through the appropriation of these grants, the recommendations in the recently updated Energy Assessment report and other subsequent reports can serve as the roadmap towards reducing the Territories dependence on imported fossil fuel and begin to chart a clean energy future for all.

The Office of the Governor has taken a lead by example posture by instituting an energy demand reduction program for the central Government. This project aims to reduce energy consumption in government facilities and vehicles by at least 5 percent per year over the next four years. The program will implement the best practices in order to advance energy-efficiency throughout government, improve utility management decisions in government facilities, and promote the use of renewable and advanced vehicle technologies and/or alternative fuel blends.

The Virgin Islands Energy Office was recently relocated to the Office of the Governor to bring a serious focus on energy issues in the USVI by commissioning the development of a comprehensive energy strategy for the Territory with the collaboration of the Southern States Energy Board, USDOE National Energy Technology Laboratory, and Virgin Islands energy stakeholders. The goal of the comprehensive energy strategy is to develop a comprehensive energy strategy for the USVI that will increase the standard of living of the citizens of the Territory by assuring the long-term availability of affordable, secure supplies of energy. A secondary goal is to become a Caribbean and worldwide showcase for the development and use of renewable energy.

In closing, I thank both chairs of the subcommittees, and would like to reiterate that the driving factor in the economy of the USVI is the high cost of energy. We are hoping that clean energy technologies can be the solution. However, there are significant impediments to their implementation and the USVI may not be able to overcome without assistance from the Federal Government. This will require immediate Congressional action.