**FY 2010 requests**
**Senate Appropriations Committee**
**Subcommittee on Energy and Water Development**

**Ala Wai Canal, Oahu, Hawaii**
**$408,000**
**US Army Corps of Engineers – Honolulu District**

Funding will be used by the Army Corps of Engineers to complete the feasibility phase studies including the alternatives formulation and preparation for the External Peer Review. The Ala Wai watershed encompasses more than 16 square miles and the Ala Wai Canal which is part of that watershed is a two-mile long manmade waterway constructed during the 1920's to create and protect the Waikiki area. Accumulation of silt and debris from the Manoa, Palolo, and Makiki streams has significantly reduced the carrying capacity of the Canal. Further, severe storms over the years have resulted in the Canal overflowing and flooding the Waikiki district. More recently, the October 30, 2004, storm in Manoa was estimated to have caused over $100 million in damages to property and irreplaceable documents in the University of Hawaii's library and has resulted in the community and agencies seeking the expansion of the Ala Wai Canal project to include flood mitigation measures in the upper stream areas. Funding provided would assist in mitigating and reducing flooding threats to property and roads, while ensuring public safety and enhancing human and environmental health.

**Anahola Watershed Area, Kauai, Hawaii**
**$200,000**
**US Army Corps of Engineers – Honolulu District**

Funding will be used by the Army Corps of Engineers to determine whether a Federal interest exists in a cost shared feasibility study to implement watershed improvements. Major flooding in the Anahola area on the island of Kauai has highlighted the lack of any flood control infrastructure, and the need for flood mitigation. Due to the lack of a functioning agricultural irrigation system, water that would have otherwise been diverted into the irrigation system is seen now as increased storm water runoff. Continued flooding occurred in February 2008, further highlighted the need for flood mitigation. Additionally, the sediment and pollution runoff from these flood events continue to cause major degradation of Anahola Stream and nearshore marine ecosystems that are vital to the Island's economy and way of life. Further, the sponsor the County of Kauai, fully endorses and supports this multipurpose watershed project.

**Commercial Production of Jatropha Biofuel Feedstock, Keaau, Hawaii**
**Hawaii County Economic Opportunity Council, Hilo, Hawaii**
**$3,500,000**
**Department of Energy, Energy Efficiency and Renewable Energy**

Project funding will be used to support mass production of high-yielding jatropha curcas biodiesel feedstock. The Hawaii Biotech Tissue Culture Center will use $2 million to complete the Research and Development and allow its laboratory to move towards full commercial production, and $1.5 million will be used to expand the lab to optimize production capability. The project will provide a clean, renewable source of energy, while creating economic stimulation, strengthening Hawaii's energy security, and decreasing our state's reliance on foreign oil.

**Energy Efficiency and Conservation Block Grant (EECBG) Program**
**$3,200,000,000**
**Department of Energy, Electricity Efficiency and Renewable Energy**

I joined Senators Menendez, Sanders, and Lugar, as well as a number of other Senate colleagues, in writing to Subcommittee Chairman Dorgan and Ranking Member Bennett to request inclusion of at least $3.2 billion for the Energy Efficiency and Conservation Block Grant (EECBG) Program, authorized in the Energy Independence and Security Act of 2007. This partnership program will help local officials expand on the success of local initiatives to increase energy efficiency, promote energy conservation, expand renewable energy supplies, and create jobs. The American Recovery and Reinvestment Act (ARRA) recognized the tremendous potential of this program and provided $3.2 billion to advance the program. This letter requests that the same level of funding be provided in the FY 2010 budget. The program creates jobs at a time when so many are struggling economically, reduces consumers' energy bills, and can help curb greenhouse gas emissions into the atmosphere.

**Energy Efficiency and Renewable Energy Programs**
**$1,707,000,000**
**Department of Energy, Electricity Efficiency and Renewable Energy, and General Provisions**

I joined Senators Reed, Snowe, and Bingaman, as well as a number of other Senate colleagues, in writing to Subcommittee Chairman Byron Dorgan and Ranking Member Robert Bennett in support of energy efficiency and renewable programs. Specifically, we urge inclusion in the FY 2010 Energy and Water Development Appropriations bill of $1.05 billion for the Weatherization Assistance Program, $125 million for the State Energy Program, $150 million for the Industrial Technologies Program, $237 million for the Building Technologies Program, and $145 million for the Energy Information Administration. Energy efficiency and renewable energy reduces energy costs for individuals and businesses, reduces greenhouse gas emissions, and creates good-paying green jobs.

**Energy Feedstock Research, Islands of Maui and Oahu, Hawaii**
**MELE Associates, Rockville, Maryland**
**$6,000,000**
**Department of Energy, Energy Efficiency and Renewable Energy**

Project funding will be used for testing and evaluation of sweet sorghum biofeedstock varieties. The biofeedstock will be grown on Hawaii Agriculture Research Center (HARC) facilities on Maui and Oahu allowing for diverse soil and climate zones. Funding will also be used to build a biorefinery pilot plant at HARC. Upon plant operation, the internal power grid of the research station will be altered to utilize electricity generated from the feedstock and demonstrate techniques that develop sustainable farm operations. MELE Energy Group will provide the engineering expertise in biomass plant operations and design. HARC will provide program management. Hawaii Natural Energy Institute (HNEI) will evaluate the sorghum biomass crop production. Biomass used as fuel reduces the need for fossil fuels and will reduce American dependence on foreign oil. Because agricultural fuels grow rapidly and continuously in Hawaii's year-round warm climate, they are readily available as a renewable resource.

**Hawaii Regional Sediment Management Demonstration Project, State of Hawaii**
**$1,000,000**
**US Army Corps of Engineers – Honolulu District**

Funding will be used by the Army Corps of Engineers to conduct technical coastal investigations, coordination, and documentation for sediment management in other regions within the State of Hawaii. Shoreline erosion threatens upland development and coastal habitat along much of the Hawaii shoreline. Numerous shorelines within the Hawaiian Islands have diminished significantly, and no longer provide a buffer to the impacts of storm waves, leading to a corresponding loss of recreational opportunities. This investigation will further the understanding of the dynamics of complex coastal processes at work and promote the development of long-term strategies for sediment management in other problematic regions in Hawaii. This project has received strong endorsement from the State of Hawaii Department of Land and Natural Resources as furthering the state of knowledge of coastal processes in Hawaii.

**Hawaii Sustainable Energy Program, Honolulu, Hawaii**
**Hawaii Natural Energy Institute, University of Hawaii at Manoa, Honolulu, Hawaii**
**$6,000,000**
**Department of Energy, Energy Efficiency and Renewable Energy**

Project funding will be used to validate technology and processes that will allow mainland grids to increase their use of intermittent renewable technology. This support is in the form of (1) quantitative analysis of the electrical grid to critically evaluate the efficacy of integrating renewable energy technologies into the electricity grid; (2) development and validation of emerging renewable and grid enabling energy technologies; (3) analysis and validation of bioenergy systems; and (4) development of partnerships to fund promising projects to accelerate deployment of promising renewable and grid enabling technology and smooth integration into Hawaii's energy portfolio. The project addresses issues associated with the high penetration of renewable energy technologies into electrical grid systems, which in turn improves Hawaii's energy security and helps to inform projects across the nation.

**Hawaii Water Resources Management System, State of Hawaii**
**$270,000**
**US Army Corps of Engineers – Honolulu District**

Funding will be used by the Army Corps of Engineers to integrate the National Weather Service Next Generation Radar (NEXRAD) Precipitation Data with the Statewide Water Resource Assessment and Database. This project will enable the Commission on Water Resource Management (CWRM) to seamlessly integrate the NEXRAD precipitation data into the state water resource database for use in the assessment of water resource availability and sustainability. The integration will enhance our understanding of our water resources state wide and allow for important data to be compared regionally, as well as support the creation of web visualization products.

**Kahului Harbor Modifications, Maui, Hawaii**
**$100,000**
**US Army Corps of Engineers – Honolulu District**

Funding will be used by the Army Corps of Engineers to determine whether a Federal interest exists in participating in a cost shared feasibility study for modifications to Kahului Harbor. Maui is faced with a critical situation due to the lack of sufficient harbor capacity to provide for the island's needs. Kahului Harbor is the only commercial harbor servicing the island of Maui and because of its location, it is currently constrained in terms of berthing capacity and terminal space. However, a potential expansion area is available at the west coral stockpile area, which was created during the construction of the original harbor in 1931. This new area has the potential to support commercial vessels and associated breakwater improvements. Support of this project will address cargo transportation inefficiencies and decrease damage to vessels and port facilities currently plaguing the harbor's operation.

**Kekaha-Waimea Watershed, Kauai, Hawaii**
**$200,000**
**US Army Corps of Engineers – Honolulu District**

Funding will be used by the Army Corps of Engineers to determine whether Federal interest exists for a cost shared feasibility study to implement watershed improvements. The towns of Kekaha and Waimea on the island of Kauai have experienced major flooding in recent years due to the lack of any flood control infrastructure. With the decline of large scale agriculture, water is no longer diverted to irrigation systems and away from the towns. The January 2005, rainstorm that flooded Kekaha caused the standing pools of storm water to become a large sewage spill as the septic and cesspool systems (there is no sewer service in this rural area) became inundated and fell below the water level. The health and safety of the residents from the sewage/storm water, as well as the flooding that cuts off all access including emergency vehicle access, are of significant concern. Continued flooding that occurred in February 2008 further highlights the need for flood mitigation.

**Laupahoehoe Harbor Modifications, Laupahoehoe, Hawaii**
**$500,000**
**US Army Corps of Engineers – Honolulu District**

Funding will be used by the Army Corps of Engineers to conduct Preconstruction, Engineering, and Design (PED) activities including engineering analyses, plan development, and the initiation of plans and specifications. The original breakwater built by the Army Corps of Engineers to shelter the bay and boat ramp is not functioning effectively. Commercial and other boaters are unable to launch boats or seek refuge more than 60 percent of the time. Consequently, there are no nearby safe harbors for such users to launch boats or seek refuge. Similar launch facilities are located more than 60 miles away. The existing features do not satisfactorily provide protection during heavy waves and impede the use of emergency vessels from this area.

**Office of Science Programs**
**$4,941,682,000**
**Department of Energy, Office of Science**

I joined Senators Bingaman and Alexander, as well as a number of other Senate colleagues, in writing to Subcommittee Chairman Byron Dorgan and Ranking Member Robert Bennett to express support for President Barack Obama's FY 2010 request of at least $4.9 billion for the Department of Energy's Office of Science. The America COMPETES Act of 2007 (P.L. 110-69), which I cosponsored, authorized the Office of Science to receive $5.8 billion in FY 2010, with the goal of doubling the Office of Science's budget over a seven-year period. The Office of Science is the main federal sponsor of basic research aimed at achieving the scientific breakthroughs necessary to meet our nation's growing needs for clean, abundant energy.

**Planning Assistance to States—State of Hawaii/Pacific Territories**
**$1,000,000**
**US Army Corps of Engineers – Honolulu District**

Funding will be used by the Army Corps of Engineers to meet the technical study needs of the State of Hawaii and Pacific Territories. The Planning Assistance to States (PAS) program assists state and local governments in preparing comprehensive plans for the development of water and related land resources. Demand for PAS studies in the Honolulu District's area of responsibility has greatly exceeded available federal funding resulting in significant delays in addressing technical water related issues in the islands. In order to more effectively manage the PAS program, the Honolulu District requires funding in proportion to the area of responsibility and additional flexibility in addressing customer needs.

**Port Allen Harbor Modifications, Kauai, Hawaii**
**$100,000**
**US Army Corps of Engineers – Honolulu District**

Funding will be used by the Army Corps of Engineers to determine whether a Federal interest exists in participating in a cost shared feasibility study for modifications to Port Allen Harbor. Port Allen Harbor users have reported surge problems within the harbor which create hazardous navigation conditions as well as damage to piers, berthing facilities and moored vessels. Additionally, plans to upgrade the nearly 50-year old harbor to accommodate larger vessels to meet the demands of Kauai's growing economy will require modifications to its existing breakwaters in order to adequately protect expanded harbor facilities. This study will identify and evaluate alternatives for modifying navigational features at Port Allen Harbor to address these concerns. The project sponsor, the State of Hawaii, Department of Transportation and harbor users strongly support this project.

**Renewable Electricity Research and Development Programs**
**$952,000,000**
**Department of Energy, Electricity Efficiency and Renewable Energy**

I joined Senator Menendez, as well as a number of other Senate colleagues, in writing to Subcommittee Chairman Byron Dorgan and Ranking Member Robert Bennett in support of renewable electricity research and development programs. Specifically, we urge inclusion of $500 million for the Solar Technologies Program ($300 million towards Photovoltaics, $150 million for Concentrating Solar Power, and $50 million for Solar Heating and Cooling); $95 million for the Advanced Geothermal Research Act programs (P.L. 110-140), as well as the additional $15 million per year authorization for an expanded resource assessment by the U.S. Geological Survey; $91 million for the Hydropower Technologies Program; $50 million for Ocean/Marine Renewable Technologies; and $201 million for the Wind Energy Technologies Program ($108 million for Wind Turbine Technology, $40 million for System Integration and Transmission, $7.5 million for Education and Workforce Development, $19.3 million for Wind Resource Modeling and Wind Farm Efficiency Assessment, $16.2 million for Siting, and $10 million for Small Wind). Research in these technologies is critical for lowering costs, improving efficiency, and surmounting the barriers they face to widespread deployment in the marketplace.

**Renewable Energy/Disaster Backup System for Hawaii State Red Cross Headquarters Building, Honolulu, Hawaii**
**American Red Cross, Hawaii State Chapter, Honolulu, Hawaii**
**$300,000**
**Department of Energy, Energy Efficiency and Renewable Energy**

Project funding will be used for the purchasing and installing of photovoltaic solar panels with battery support at the Hawaii State Red Cross Headquarters Building. This represents half of the total project cost of $600,000. Of this total cost $500,000 is to be used to purchase and install photovoltaic panels and $100,000 is to purchase and install batteries for disaster backup. The project will serve as a critical back-up energy source during a disaster, as well as a demonstration project for the generation of clean, reliable energy. A photovoltaic system will decrease the long-term cost of operations and direct more scarce resources towards helping people in need. It will also provide critical backup energy in a disaster which is especially vital for Hawaii because of its isolation and inability to borrow energy from neighboring state grids.

**South Maui Watershed, Maui, Hawaii**
**$300,000**
**US Army Corps of Engineers – Honolulu District**

Funding will be used by the Army Corps of Engineers to determine whether a Federal interest exists in a cost shared feasibility study to implement watershed improvements. The area of the South Maui Watershed is an important economic engine for the County of Maui and is experiencing significant development pressures so preservation and maintenance of natural resources is a high priority. Further, ocean water quality in the Kihei-Wailea-Makena area has been compromised during heavy rainfall events in the watershed. In addition the project sponsor, the County of Maui fully endorses and supports this multipurpose watershed project.

**South Molokai Watershed, Molokai, Hawaii**
**$300,000**
**US Army Corps of Engineers – Honolulu District**

Funding will be used by the Army Corps of Engineers to determine whether a Federal interest exists in a cost shared feasibility study to implement watershed improvements. The South Molokai Watershed consists of several sub-watersheds. Geographically, there are primarily ranch lands and some scattered residential lands in the upper elevations, and clusters of urban settlements near the shoreline. Flooding events have taken place at Kawela, within Kaunakakai town and Kapaakea. Also, preservation of hunting, gathering, and fishing activities, as well as water availability are important community values that should be considered. Further the sponsor, the County of Maui, fully endorses and supports a multipurpose watershed project for the South Molokai watershed.

**Waiakea-Palai Streams Flood Reduction, Hawaii**
**$300,000**
**US Army Corps of Engineers – Honolulu District**

Funding will be used by the for the Army Corps of Engineers to initiate the Preconstruction, Engineering, and Design (PED) phase including the preparation of Engineering Design Report (EDR). Separate Continuing Authorities Program (CAP) feasibility studies clearly indicate that there is a common solution to reducing flooding in both drainage areas. There has been significant damage to roads, residences, bridges, drainage systems, and personal property over the years due to flooding of Waiakea and Palai Streams. Funding provided will mitigate and reduce flooding in affected communities.

**Waialua-Kaiaka Watershed, Oahu, Hawaii**
**$300,000**
**US Army Corps of Engineers – Honolulu District**

Funding will be used by the Army Corps of Engineers to determine whether a Federal interest exists in a comprehensive analysis of watershed problems, including flooding, ecosystem degradation, and lack of irrigation water supply for agriculture. There is a lack of a consolidated inventory of watershed planning information for the Waialua-Kaiaka watershed, the largest drainage area on the island at 80 square miles. The community desires solutions to water resource problems, which include flooding and ecosystem degradation, water conservation, and water supply. The identification of problems and potential remedial actions will provide the momentum for improvements, further economic development, and, conservation of ecosystems. There exists considerable community support through the North Shore Neighborhood Board and local political interest, particularly to alleviate flooding.

**West Maui Watershed, Maui, Hawaii**
**$100,000**
**US Army Corps of Engineers – Honolulu District**

Funding will be used by the Army Corps of Engineers to determine whether a Federal interest exists in a cost shared feasibility study to implement watershed improvements. The West Maui watershed includes the entire area associated with the West Maui Mountains (approximately 90,000 acres) on the island of Maui, Hawaii. Further, it encompasses all of the West Maui drainages from the south at Maalaea, west at Lahaina, north at Honokohau, and east at Wailuku. The completed reconnaissance study identified flood damage reduction, aquatic and marine ecosystem restoration, and shoreline protection projects that could be undertaken by the Corps of Engineers along with county and State agency partners. This project is viable as there is interest by the partners, stakeholders, non-profit organizations, and communities in further developing a watershed management plan that can be used to leverage other available resources. The primary sponsor, the State Department of Land and Natural Resources, fully endorses and supports the multipurpose watershed project and expects that other agencies will co-sponsor this project feasibility study.