

FY 2011 Energy and Water Appropriations Requests

Project Title: Advanced Materials for Next Generation Offshore Wind Turbines Research
Amount: \$1,000,000
Recipient: Clemson University Restoration Institute
Purpose: Navigation
Description:

Clemson University requests funding for the research and development of advanced materials for the next generation of large offshore wind turbines. With this funding, Clemson will promote the development of green energy jobs, establish offshore wind power as a viable and cost-competitive technology, and launch new markets in marine resilient materials. This project will build off of a Department of Energy grant recently secured to develop a drivetrain test facility at Clemson University Restoration Institute in North Charleston, further establishing the Charleston area as a hub for wind energy technology development.

Project Title: Atlantic Intracoastal Waterway, SC
Amount: \$4,030,000
Recipient: US Army Corps of Engineers – Charleston District, SC
Purpose: Navigation
Description:

Federal funding will be used to dredge the Atlantic Intracoastal Waterway (AIWW), which will allow for the continual usage of the waterway as vessel traffic for east coast container ships of all sizes. If the AIWW were not navigable, vessel traffic would be forced to traverse the east coast using the open ocean. This would significantly increase the potential threat to vessel safety from weather-related activity and would limit the type of vessels that could efficiently transport commercial cargo.

Project Title: Charleston Harbor, SC
Amount: \$13,000,000
Recipient: US Army Corps of Engineers – Charleston District, SC
Purpose: Navigation
Description:

Charleston Harbor supports a vital mission in the defense of our nation and is one of the nation's 14 strategic ports. It is the 4th busiest container port on the east coast and provided over 40% of the equipment and material in support of reconstruction efforts in Iraq and Afghanistan. This project consists of maintenance of 44.6 miles of channel, three turning basins, and one anchorage basin. The lower harbor requires dredging every year, the entrance channel every other year, and the upper harbor approximately every 16 - 18 months.

Project Title: Charleston Harbor, SC (Post 45 Ft Deepening)
Amount: \$2,500,000
Recipient: Army Corps of Engineers – Charleston District, SC
Purpose: Navigation
Description:

Federal funds will be used to initiate and complete a reconnaissance study to investigate if further channel deepening/widening beyond the current 45-foot depth is warranted. The study will look at the feasibility and benefit-cost ratio of deepening certain shipping channels beyond 45 feet. An increase in the amount of cargo ships using the terminal will increase the amount of funds the harbor generates for the local community. It will also keep Charleston Harbor competitive among other ports of call on the east coast, strengthening the shipping industry for the area.

Project Title: Charleston Wastewater Tunnels, SC
Amount: \$16,000,000
Recipient: Charleston Water System/Public Service Division, SC
Purpose: Environmental Infrastructure/Sewer Improvements
Description:

The City of Charleston, SC is provided sewer service by an 8 mile long network of 100-foot-deep tunnels that collect wastewater from shallow sewer lines and carries it to the Plum Island plant for treatment. These structures were built in the 1960's and are deteriorating at a rapid pace. Sections of the tunnels have collapsed. The Water Resources Development Act of 2007 authorized participation at a total of \$16M for wastewater tunnel replacement in two separate authorizations (Charleston Wastewater Tunnels and Charleston and West Ashley). Improvements are cost shared 75% Federal and 25% local. The tunnel system is being replaced in five phases - phase one, two, three and four are complete. Through federal funding, improvements to the city's sewer system will be realized by replacing the current deteriorating sewer system.

Project Title: EngenuitySC – Midlands Green Jobs Initiative
Amount: \$475,000
Recipient: EngenuitySC, Columbia, SC
Purpose: Energy Efficiency and Renewable Energy

Description:

The United States is embracing sustainability, motivated by reducing our nation's dependence on foreign oil and mitigating environmental impacts of traditional power generation and use. The prospect for job creation associated with sustainability has been widely touted. However, at the local level, policy makers, educators, and workers do not have a clear sense of how best to approach green job creation and secure green job employment. The Midlands Green Jobs Initiative will bring together regional leaders to address these issues collaboratively. The Initiative will provide local elected officials with prioritized policy options for green job creation. It will provide educators, including job-training professionals, an understanding of current demand and expected rate of growth in local green job fields so that training can be aligned with job demand.

Project Title: Georgetown Harbor, SC
Amount: \$4,095,000
Recipient: US Army Corps of Engineers – Charleston District, SC
Purpose: Navigation
Description:

Federal funding will be used to dredge the Georgetown Harbor, which is critical to the viability and successful operation of the paper mill and steel mill where a majority of workers in the area are employed. In essence, the harbor serves as a subsistence harbor for the community. Lack of

disposal area capacity will directly impact the ability to dredge and maintain channel depth. The three disposal areas require some form of ongoing maintenance and repair every year. Maintenance will reduce future dredging costs since material will no longer fall into the channel.

Project Title: Home Area Network (HAN) Project – Phase I
Amount: \$750,000
Recipient: City of Rock Hill, SC
Purpose: To enable smart grid applications for the Rock Hill consumer. Through the HAN, residents will be provided the means to monitor, manage, and reduce their energy consumption

Description:

The purpose of the Home Area Network (HAN) Project, Phase I, is to provide approximately 1,230 customers with whole house energy management at a cost of \$1,230,000. The City has already secured \$480,000 through funds made available through the Energy Efficiency and Conservation Block Grant (EECBG) and is looking to partner in order to receive the remaining \$750,000. The HAN units could mean real savings for the Rock Hill community in terms of energy use as well as a reduction in customer utility bills.

Project Title: Hydrogen Production from Nuclear Energy Systems
Amount: \$1,000,000
Recipient: University of South Carolina NanoCenter
Purpose: Energy Development

Description:

The US is faced with an energy crisis that necessitates the move from a heavy dependence on foreign oil to development of alternative energy sources such as hydrogen. Hydrogen can be produced by splitting water atoms, typically via application of large amounts of heat or electricity. Many South Carolina organizations are involved with research and industrial development efforts to advance the commercialization of hydrogen technologies. USC has the leading and unique polymer membrane expertise to conduct this research jointly with SRNL, enabling development of economical, commercial-scale hydrogen production technologies that would utilize high temperature process heat used in new nuclear energy generation systems.

Project Title: Industrial Energy and Environmental Training Center (IEETC)
Amount: \$500,000
Recipient: Florence Darlington Technical College
Purpose: Electricity Delivery and Energy Reliability

Description:

This project will support South Carolina's industries coping with the growing complexities of energy and environmental issues and regulations and will provide necessary research and training. Energy and Environmental training programs will assist industries in satisfying regulations while retaining the competitive advantage for success in tomorrow's workplace. The IEETC, coupled with the Advanced Manufacturing Center and the Manufacturing Incubator, will train industry new to the region, as well as provide re-training for those already existing industries.

Project Title: Myrtle Beach, SC (Environmental Infrastructure)
Amount: \$200,000

Recipient: US Army Corps of Engineers – Charleston District, SC
Purpose: Construction
Description:

Project would provide assistance for environmental infrastructure, including ocean outfalls, in the Myrtle Beach area. Funding would lead to the reduction of shoreline contamination during heavy rains caused by stormwater outfalls located along the waterline on the busiest beaches. The project would strengthen the stability of the beach and the ability to keep sand on the beach for recreation and protection against storms.

Project Title: North Myrtle Beach, SC (Environmental Infrastructure)
Amount: \$200,000
Recipient: US Army Corps of Engineers – Charleston District, SC
Purpose: Construction
Description:

Project would provide assistance for environmental infrastructure, including ocean outfalls, in the North Myrtle Beach area. Funding would lead to the reduction of shoreline contamination during heavy rains caused by stormwater outfalls located along the waterline on the busiest beaches. The project would strengthen the stability of the beach and the ability to keep sand on the beach for recreation and protection against storms.

Project Title: Pawleys Island, SC
Amount: \$5,848,000
Recipient: US Army Corps of Engineers – Charleston District, SC
Purpose: Storm Damage Reduction
Description:

This hurricane and storm damage reduction project is located on Pawleys Island and funds will be utilized to execute the Project Partnership Agreement, certify real estate, and award a construction contract for placement of material on the beach to reduce storm damages. A cost savings to the taxpayer will be realized as a direct result of the reduction of hurricane and storm damage to housing, commercial buildings and infrastructure in the local area. In order to reduce the lead time between actual funding and contract award, the Town of Pawleys Island is prepared to pre-fund the necessary survey and appraisal work if federal funding is received.

Project Title: Programmatic Equipment in Support of Alternate Energy for the Midlands Technical College's (MTC) Engineering Technology and Sciences Facility
Amount: \$750,000
Recipient: Midlands Technical College
Purpose: Energy Efficiency and Renewable Energy
Description:

Technical and skilled craft positions are needed to fill jobs in the alternate energy field, including nuclear energy, hydrogen fuel cells, solar, wind and biomass production. This project will allow MTC the capacity to educate and train South Carolinians to fill the influx of skilled craft and technical positions in the rapidly growing energy sector, particularly in areas such as hydrogen fuel cells, solar, wind, biomass production and nuclear energy.

Project Title: Reedy River, SC

Amount: \$300,000
Recipient: City of Greenville, SC
Purpose: Environmental Restoration
Description:

This study will determine the feasibility of carrying out a project for habitat restoration, water quality, flooding/floodplain delineation, and other related purposes on the Reedy River. Environmental initiatives can result in improvements that provide a wide range of economic and environmental benefits. In the case of a stream polluted by agricultural runoff, the benefits from eliminating the pollution can be compared to costs of actions to reduce the runoff. Residual benefits could be realized through reducing damages to homes and businesses caused by flooding. The City is interested in initiating and completing a feasibility study focusing on the construction of environmental restoration projects and investigating opportunities for flood damage reduction features in the vicinity of Greenville, SC.

Project Title: Surfside, SC (Environmental Infrastructure)
Amount: \$200,000
Recipient: US Army Corps of Engineers – Charleston District, SC
Purpose: Construction
Description:

Project would provide assistance for environmental infrastructure, including ocean outfalls, in the Myrtle Beach area. Funding would lead to the reduction of shoreline contamination during heavy rains caused by stormwater outfalls located along the waterline on the busiest beaches. The project would strengthen the stability of the beach and the ability to keep sand on the beach for recreation and protection against storms.