

United States Senate

WASHINGTON, DC 20510

May 22, 2009

The Honorable Daniel K. Inouye, Chairman
The Honorable Thad Cochran, Vice Chairman
Senate Committee on Appropriations
S-131, U.S. Capitol
Washington, D.C. 20510

The Honorable Byron L. Dorgan, Chairman
The Honorable Robert F. Bennett, Ranking Member
Appropriations Subcommittee on Energy and Water Development
186 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Chairmen, Vice Chairman, and Ranking Member:

As your subcommittee drafts its spending bill for fiscal year 2010, we respectfully submit the following appropriations requests for the Energy and Water Development Appropriations Bill, as described below. These projects meet a local, state or national public need and maintain or create jobs.

ENERGY PROJECTS

21st Century Renewable Fuels, Energy, and Materials Initiative -- \$3,000,000

We request \$3,000,000 for Kettering University for the research and development of improved energy storage systems. Improving the performance of energy storage systems such as fuel cells and high power density Lithium-Ion-AIR batteries is important for achieving a sustainable and energy secure environment. Kettering's energy storage systems could be effectively implemented across a range of industries including renewable energy storage and back-up auxiliary power generation for homes.

A123Systems Large Format Nanophosphate Batteries for Solar Energy Storage -- \$2,000,000

We request \$2,000,000 for A123Systems for the development of durable, low-cost lithium ion batteries for solar power and other energy storage applications. The best place to store this energy is near the point of use, therefore these batteries must be maintenance free, safe, and small enough to be practical for residential use. The incumbent lead acid batteries for energy storage are too large and toxic to produce and dispose of, and offer limited life even with significant maintenance. Ideal batteries would have lithium ion performance, but would approach lead acid batteries in cost. The industry recognizes that breaking the cost barrier of

lithium ion batteries requires significant innovations in materials, processes and systems. Improvements in the materials will be realized by optimizing the low cost version of existing materials for long life rather than high power.

Advanced Renewable Waste-to-Energy Demonstration Facility -- \$5,000,000

We request \$5,000,000 for a collaborative effort among the Michigan Economic Development Council (MEDC), the Mid-Michigan Innovation Center, Saginaw Valley State University, the City of Midland, Dow Chemical, and Lipten Company to demonstrate advanced gasification technology to produce highly efficient, cost-effective, renewable energy from municipal waste. The MEDC is submitting this project to help position Michigan to be a global leader in the successful implementation of clean energy from an otherwise-wasted resource. The use of traditional combustion-based processes for creating energy from municipal solid waste is a subject of global debate. Adopting cleaner methods to utilize municipal waste streams to power our homes and businesses will provide good-paying jobs while resulting in less carbon-based energy production and reduced disposal costs.

Auxiliary Power for Heavy Duty Trucks -- \$5,000,000

We request \$5,000,000 for Energy Technology Components, LLC to demonstrate an auxiliary power component in semi-trailer trucks operated by Con-Way. Proprietary technology developed at the University of Michigan in collaboration with the U.S. Army's National Automotive Center will be incorporated into diesel fuel reformers that will be coupled with commercial solid oxide fuel cells to provide 5 kilowatts of auxiliary power. Semi-trailer trucks idle or use on board generators for air-conditioning, heating, and electronics. Trucks idle for about 6 hours per day resulting in roughly 1,800 wasted gallons of gasoline per year per truck, costing the trucking industry more than \$2 billion per year in wasted fuel and engine maintenance costs.

Building Surface Science Capacity to Serve the Automobile Industry in Southeastern Michigan -- \$750,000

We request \$750,000 for Eastern Michigan University (EMU) for the construction of lab space within EMU's new Science Complex. Specifically, this funding would be allocated for the creation of several laboratories and rooms, including a plasma/laser lab, optics lab, photographic lab, surface science lab, nano indenter/scanning probe microscope room, and an electro-impedance microscope room along with several support rooms. Creating an interdisciplinary group within a LEED-certified infrastructure will increase the ability to generate new products and concepts to serve the automobile industry and other industries in southeastern Michigan and the United States.

City of Grand Rapids Energy Efficiency Education Program -- \$310,000

We request \$310,000 for the City of Grand Rapids to develop a comprehensive strategic plan that transitions the community from immediate utility assistance to prevention and conservation. This funding will support a community-wide education campaign, including a mass communication campaign, behavior modification training, and training for youth in green jobs. This campaign targets residential properties, which produce 39% of emissions. The program will target low-income homeowners to educate them on how to reduce their energy costs.

City of Muskegon Commercial Wind Turbine Research, Development and Demonstration Initiative -- \$750,000

We request \$750,000 for the City of Muskegon to research and develop the next generation of the Honeywell 760 Residential Wind Turbine. Muskegon is home to the technology team that built the Residential Wind Turbine, which can generate electricity with as little as 3 mph winds and produce almost 1,600 kilowatt hours of electricity annually, or between 15 to 20 percent of a home's electricity usage. The Commercial Wind Turbine project is being developed by Windtronics in cooperation with the City of Muskegon and Muskegon Community College and will offer the same potential as the Residential Wind Turbine to commercial customers, such as malls and commercial buildings.

Community Solar Roofs Project -- \$500,000

We request \$500,000 for Wyandotte Municipal Services to deploy five 10-kilowatt solar installations on prominent public buildings in Wyandotte, Michigan. Specifically, these systems will be installed on the Municipal Court, the Police Department, Theodore Roosevelt High School and two other public buildings in the city. The Wyandotte School District was the first district in Michigan, and one of the first in America, to achieve the EPA's Energy Star building label for all its school buildings. The project will combine standard photovoltaic electricity-generating technology with solar thermal technology in order to provide power and hot water for these buildings.

Consortium for Plant Biotechnology Research -- \$7,000,000

We request \$7,000,000 for the Consortium for Plant Biotechnology Research (CPBR) for research and development of technologies that lessen the country's dependence on foreign oil, prevent or remediate hazardous wastes, and reduce greenhouse gas emissions. CPBR is a consortium of universities and industry suppliers that supports research and development efforts and stimulates cooperation and interaction between academic and industry scientists. Several Michigan universities participate in the consortium, including the University of Michigan, Michigan State University, and Michigan Technological University. CPBR utilizes a competitive project selection process that includes industrial evaluation of research concepts to ensure practical applications and peer review to ensure scientific excellence. CPBR's process significantly increases the transfer and commercialization of plant biotechnologies from the academic research laboratory to the marketplace.

Corrosion Control Solutions, Inc. Anchor Bolt Cover -- \$500,000

We request \$500,000 for Corrosion Control Solutions (CCS), Inc. to hire key staff and, increase manufacturing capacity to produce anchor bolts covers. With a current installed capacity of 25,170 MW of wind power in the United States, CCS estimates a demand for roughly 2,517,000 anchor bolts for constructed wind power projects. A majority of these anchor bolts are currently uncovered and have no protection from corrosion. The CCS anchor bolt has been proven in the field and is now the anchor bolt cover of choice for one of the world's largest wind power developers.

CT Simulator for use at the Great Lakes Cancer Institute at Lapeer Regional Medical Center. -- \$1,000,000

We request \$1,000,000 for the Lapeer Regional Medical Center for the acquisition of a CT Simulator to be used at the Great Lakes Cancer Institute. CT Simulation is one of the latest

advances in the field of radiation oncology for the treatment of cancer. Simulation is the most accurate process available to localize, define, and reconstruct, in 3-dimension, a patient's tumor. This process identifies the tumor along with the normal tissue surrounding it, allowing the radiation oncologist to design a treatment plan unique to each patient's anatomy. It enables the radiation therapist to map the resulting treatment coordinates with a high degree of accuracy.

DEGC East Riverfront Energy Efficient Street Lighting Project -- \$1,050,000

We request \$1,050,000 for the Detroit Economic Growth Corporation (DEGC) for an energy efficient street lighting project. This program builds on DEGC's planned energy efficient street lighting project in the downtown area to undertake a large-scale streetlight retrofit along 4.5 miles of local roads in the East Riverfront neighborhood and would significantly reduce the city's utility costs. Conversion to LED lighting will provide efficiency gains of 50 percent over conventional street lighting. LED lights last five times as long as conventional sodium halide lights while requiring less maintenance. The conversions are expected to save the City of Detroit more than \$150,000 on energy costs annually.

Detroit Institute of Arts Energy Efficiency Upgrades -- \$1,750,000

We request \$1,750,000 for the Detroit Institute of the Arts (DIA) for energy efficiency upgrades. In an effort to reduce energy consumption and cut operating costs, the DIA proposes to convert its extensive lighting systems (gallery and office) from fluorescent to Organic Light Emitting Diode (OLED) lighting and install an outside air economizer (AE) system. The cost savings of OLED over a 65-watt bulb are more than 80 percent. Converting to this lighting system would represent an estimated 50 percent energy savings over the current system. In addition, it is imperative that the DIA provide a stable temperature and humidity level for the art collection. An AE cools a building using air from the outside, greatly decreasing the need for mechanical cooling and saving more than \$75,000 annually. Increased use of outdoor ventilation air will also flush out pollutants and contaminants and improve air quality in the museum.

Digital Mammography Machine for the Great Lakes Cancer Institute at Ingham Regional Medical Center -- \$500,000

We request \$500,000 for the Ingham Regional Medical Center for the purchase of a digital mammography machine to be used at the Great Lakes Cancer Institute. Digital mammography is a newer technology that is becoming more common. Currently, approximately 8 percent of breast imaging units provide digital mammography. Digital mammography takes an electronic image of the breast and stores it directly in a computer. This technology uses less radiation than traditional film mammography. Digital mammography allows improvement in image storage and transmission because images can be stored and sent electronically. Radiologists can also use software to help interpret digital mammograms.

Energy Recovery Technology for Railway Applications -- \$2,000,000

We request \$2,000,000 for L-3 Communications Combat Propulsion Systems to design, install, test, and validate a demonstration of energy recovery technology (ERT) for railway applications. ERT captures braking energy utilizing advanced permanent magnet technologies (i.e. regenerative braking system used on today's electric hybrid vehicles) during extensive downhill braking, station braking or emergency braking. Each of these major braking events would reduce fuel consumption in lieu of using the diesel engine. The energy could then be stored and used by the train for other power requirements.

FlexSys Wind Energy LLC: Demonstrating and Manufacturing Next Generation, High Efficiency Wind Turbine Blades -- \$7,000,000

We request \$7,000,000 for FlexSys Wind Energy LLC for the demonstration and manufacture of next generation, high efficiency wind turbine blades. This funding will allow FlexSys to build and test full-scale, prototype turbine blades. These adaptive, trailing edge, wind turbine blade components have been extensively tested by internationally recognized experts in wind turbine blade technology at Sandia National Labs. Sandia's experts concluded FlexSys' technology offers 15 percent increase in energy capture combined with 75 percent reduction in blade fatigue over current technology.

Grand Rapids City Buildings Solar Panel Demonstration Project -- \$750,000

We request \$750,000 for the City of Grand Rapids for a solar demonstration project. This funding will be used to install solar panels on city buildings to reduce energy consumption and generate energy from localized sources. This project will be carried out using solar equipment from a local photovoltaic company, which will support local jobs while benefitting the national commercialization of solar technology.

Great Lakes Energy Research Park -- \$2,408,000

We request \$2,408,000 for Greater Gratiot Development, Inc. for the research and development portion of the Great Lakes Energy Research Park (GLERP). The GLERP will be the first commercial-scale synthetic fuels plant in the United States using advanced gas-to-liquids liquefaction technology. In addition to producing 20,000 barrels per day of ultra-clean diesel and jet fuel for sale to the Department of Defense, the GLERP will create 250 megawatts of exportable or net electric power and permanently sequester over 3.8 million tons per year of carbon dioxide that will ultimately recover over 180 million barrels of stranded oil.

Green Manufacturing -- \$3,000,000

We request \$3,000,000 for Western Michigan University to assist companies in utilizing environmentally benign and energy conscious materials in their design and manufacturing processes. The proposal is a collaborative project involving Western Michigan University College of Engineering, College of Business, industry partners and community participants and seeks to enhance economic and workforce development and technology transfer through the advancement and use of environmentally friendly materials, designs, products and manufacturing processes and systems.

Green Windpower on Brownfields Project -- \$2,000,000

We request \$2,000,000 for Wyandotte Municipal Services for a wind power demonstration project. This project will demonstrate a first-in-the-nation application of urban brownfield windpower in a region seeking additional renewable resources and struggling with the restoration of contaminated properties and unhealthy air quality. Bids for installation of the wind turbines have been received, and the project is ready to go into the construction phase immediately. In addition to its demonstration value, this project will assist the State of Michigan in reaching its renewable energy portfolio standards goals.

Grid Logic Intelligent Grid Devices for the Smart Grid -- \$4,000,000

We request \$4,000,000 for Grid Logic for smart grid devices. This funding would assist in the development of a new class of devices that automatically stabilize the electric utility grid and

enable the active control of power flow. These Intelligent Grid Devices augment systems currently in use and make the smart grid possible. Work will be completed at Grid Logic's Metamora facilities to continue development of a 13800 Volt 1000 Amp IGD Fault Attenuator.

Hybrid electric systems for medium and heavy vehicles that operate in zero emission. -- \$4,000,000

We request \$4,000,000 for ArvinMeritor, Inc. for a hybrid electric systems development project. This funding will be used for the further development and enhancement of electric and hybrid electric systems that promise to significantly improve fuel consumption and reduce emissions of commercial vehicle power trains.

HyperCAST Green Technology -- \$3,000,000

We request \$3,000,000 for the HyperCast Consortium, a partnership between the North American Die Casting Association (NADCA), premier research universities, the metal casting industry, and the DOE Vehicle Technologies Office. HyperCast is developing composite materials and casting processes for high strength, lightweight cast components for vehicles that offer the potential for a 60 percent reduction and related improvement in energy efficiency.

Keweenaw Bay Indian Community Green Energy Park and Transportation Corridor -- \$1,000,000

We request \$1,000,000 for the Keweenaw Bay Indian Community for the creation of a green energy park and transportation corridor for the manufacture and assembly of alternative energy parts and components. This project requires building a large manufacturing facility for wind towers, deep water port development for shipping and running of a rail spur for transportation.

Keweenaw Bay Indian Community Wind Turbine Tower Manufacturing -- \$5,360,311

We request \$5,360,311 for the Keweenaw Bay Indian Community to assist in the development of a wind turbine tower manufacturing facility. This manufacturing facility will be part of a larger green energy park located on a rehabilitated deepwater port with access to rail transportation corridors. Funding will be used for the development of a large manufacturing facility along with the acquisition of a steel plate roller and overhead crane.

Lansing Bioenergy Generation Demonstration Project -- \$4,000,000

We request \$4,000,000 for the Lansing Board of Water and Light to convert its existing pulverized coal units at Erickson and Belle River to be able to use biomass and biofuel for generation. Burning biomass and biofuels will limit the amount of coal burned and reduce greenhouse gas emissions. The required project infrastructure includes loading/unloading facilities for handling large quantities of biodiesel, inside storage including agitated tank systems to prevent the bio-diesel from gelling, and biodiesel injection guns.

Lansing Plug-In Hybrid Initiative -- \$1,000,000

We request \$1,000,000 for the Lansing Board of Water and Light (LBWL) to design, engineer and construct five plug-in hybrid electric charging stations in prominent spots in the community. Lansing will also replace 10 deteriorating, petroleum-fueled fleet vehicles with cleaner, more fuel-efficient vehicles. These plug-in hybrid vehicles will be distributed among LBWL and City departments in a fashion to best showcase the technology within the community.

Lansing Smart Grid and Advanced Metering Initiative -- \$2,000,000

We request \$2,000,000 for the Lansing Board of Water and Light (LBWL) for the implementation of a major smart grid and advanced metering initiative that will enable renewable resources, greater efficiencies, and real-time energy reductions to occur throughout the greater Lansing area. The deployment of 150,000 smart meters and a smart grid to enable efficiency and renewables will create hundreds of jobs, reduce energy use, and achieve substantial environmental progress. This initiative will also be integrated with the creation of the Regional Training Center for Smart Grid Workforce Training and Technology at Lansing Community College.

Manufacturing Energy Diminution Technology (MEDT) -- \$5,000,000

We request \$5,000,000 for the Pom Group, Inc. to develop critical technologies to reduce energy consumption during the component manufacturing process. Manufacturing Energy Diminution Technology (MEDT) will significantly reduce energy usage through the remanufacturing process of tools utilized to create the parts themselves. The proposed new process will replace many steps and complex processes in traditional tooling and die manufacturing. It offers the advantage of greatly reducing the time to produce complex tooling and dies with ultra high precision, while simultaneously achieving superior tool life and productivity.

Manufacturing Industrial Development for Energy Generation, Storage, and Efficiency -- \$2,500,000

We request \$2,500,000 for the National Center for Manufacturing Sciences (NCMS) for a collaborative program to drive manufacturing development in fuel cell components, new battery technology and energy efficient products. The key driver behind commercialization for higher volume energy and battery applications rests in the manufacturability of the systems. NCMS will use its expertise in bringing together government and industry to develop manufacturing processes, diagnostics and efficient assembly solutions to address the technology, affordability, market, policy and infrastructure challenges involved in deploying new energy efficient technologies.

Marquette Renewafuel Commercial Demonstration Facility -- \$5,000,000

We request \$5,000,000 for Renewafuel, LLC to construct a plant and initiate production at a site at Telkite Technology Park in Marquette County, MI. Renewafuel will utilize this site to continue to engineer high-quality renewable biomass fuels for integration as co-fired feedstock in power plants and industrial furnaces. This plant has an estimated cost of \$18.5 million and will provide roughly 25 high-paying jobs with the possibility of 100 jobs indirectly created through feedstock development.

MEDC Biogas Center of Excellence -- \$4,000,000

We request \$4,000,000 for the Michigan Economic Development Corporation (MEDC) for its Biogas Center of Excellence in Flint. Partners in this project include the MEDC, City of Flint, Kettering University, the Mott Foundation, and Swedish Biogas International. The proposed project would involve the production of biogas at a wastewater treatment facility in Flint. The biogas could be used as fuel for municipal vehicles and could also be used to generate heat and electricity. The Center will also establish relationships with entities in Sweden for best practices in biogas, serving as a joint research and development center of excellence between the US and Sweden in biofuels and bioenergy.

MEDC Forestry Biofuel Statewide Collaboration Center -- \$2,500,000

We request \$2,500,000 for the Michigan Economic Development Corporation (MEDC) for its Forestry Biofuel Statewide Collaboration Center (FBSCC) in Michigan's Upper Peninsula. The Center focuses on biological, economic, and social solutions to improve the supply chain for woody biomass to be used throughout the state as feedstock for cellulosic biofuel production. The activities of the Center will lay the groundwork so that Michigan can be a national leader in producing biofuels from its abundant forestry resources. This Center's overall goal is to improve the supply infrastructure that will sustainably provide woody biomass supplies for biofuel production over the long-term.

Michigan Iron Nugget, LLC Empire Commercial Demonstration Facility -- \$5,000,000

We request \$5,000,000 for Michigan Iron Nugget, LLC for the construction of a direct reduced iron nugget facility at the current Empire Mine near Palmer, Michigan. The facility will utilize a new and innovative technology to turn iron ore fines and pulverized coal into high-quality iron nuggets for use primarily in electric arc steelmaking furnaces. The new process is a one-step furnace operation that requires less energy, capital, and operating costs as well as produces substantially lower emissions than existing "pig iron" technology.

Modular Energy Storage System for Hydrogen Fuel Cell Hybrid Vehicles -- \$2,500,000

We request \$2,500,000 for Magna Electronics/Intelligent Power Systems to design an energy storage system for hybrid vehicles. This storage system will achieve three key objectives related to fuel cell use in hybrid vehicle. First, it will provide power during the period of time it takes a fuel-cell to warm-up; second, it will manage the "spike load" of the electric drive system by providing significant power from the energy storage system when the hydrogen conversion system is unable to meet the vehicle's needs; and third, it will maximize the recovery of energy during the braking process while protecting the fuel cell infrastructure.

MTU - Establishing an Infrastructure in Sustainable Transportation Utilizing Fuels and Co-Products -- \$2,000,000

We request \$2,000,000 for Michigan Technological University's (MTU) Wood-to-Wheels research project. This program at MTU will develop, demonstrate and assess technologies for the utilization of bio-based fuels which could help lower greenhouse gas emissions, decrease reliance on petroleum-based products, and increase domestic job creation.

MTU - Photovoltaic and Microgrid Research Initiative -- \$2,000,000

We request \$2,000,000 for Michigan Technological University (MTU) for the development of more efficient and cost-effective photovoltaic materials for producing electricity from the sun, advancements in photovoltaic systems, and the integration and optimization of photovoltaic energy with existing energy resources. Electrical energy is one of our critical interdependent infrastructures. Development of alternate energy sources and development of smart infrastructures is a key facet of energy independence. Funding for this research will develop the technologies and bridge the gap to manufacturing, resulting in economic development and reducing U.S. reliance on imported oil and gas.

Oakland University Alternative Energy Education -- \$1,000,000

We request \$1,000,000 for Oakland University for an alternative energy demonstration project that includes the installation of wind turbines to offset some grid electrical usage by the

University, plus a biomass boiler to offset natural gas usage. These facilities, in addition to biodiesel-based power generation, photovoltaic arrays and solar-thermal water heating, will be the foundation of Oakland Universities' green campus initiative. These facilities will be ideal for educational tours for K-12 school districts in the Detroit metropolitan area, in addition to open-community events focusing on sustainability with renewable energy.

Reducing Energy Consumption in the Metal Treating Process Demonstration Project -- \$2,000,000

We request \$2,000,000 for Bonal Technologies, Inc. for a technology demonstration project. The proposed technology demonstration project involves the installation of next generation metal treatment equipment in 23 U.S. government manufacturing and/or repair facilities. Bonal's technology, called Meta-Lax®, is a sub-harmonic metal stress relief process (SHSR) that replaces thermal stress relief (TSR). TSR involves putting metal parts into industrial furnaces, heated to 1100-1200F. An independent U.S. Department of Energy study showed that Meta-Lax® SHSR has two main advantages over traditional TSR: (1) it is considerably less expensive and (2) it uses 98 percent less energy. The U.S. Army realized annual savings of \$230,000 in energy costs by using SHSR instead of TSR.

Regional Training Center for Smart Grid Technologies -- \$2,500,000

We request \$2,500,000 for Lansing Community College for the Regional Training Center for Smart Grid Technologies. This facility will train workers to replace, expand, and update the national electric grid. The project will also support the retraining of dislocated workers, to prepare for expected utility industry attrition and infrastructure upgrades, and to retrain construction and manufacturing industry workers to support the shift towards a greener electric infrastructure. Funds are needed to expand infrastructure, develop curriculum in partnership with area utility industries and local and state municipalities, and provide professional development to support workforce training and retraining in advanced technology related to alternative energy, advanced electric grid infrastructure development and maintenance, and utility distribution. This initiative will be critical in meeting a growing regional workforce demand in the areas of alternative energy and advance utility maintenance.

Ribbon Technology International Horizontal Ribbon Growth -- \$5,000,000

We request \$5,000,000 for Ribbon Technology International (RTI) to assist in the development and manufacturing of its revolutionary processing technology to create single crystal silicon wafers used in solar photovoltaic panels. RTI's method will decrease the cost of solar dramatically, making solar energy an extremely viable source of energy all over the world. This new method will create less wasteful, cost effective solar panels that will bring new jobs to Michigan and the United States.

Sequest LLC Algae to Biofuel Production System -- \$1,800,000

We request \$1,800,000 for Sequest, LLC to develop efficient algae production facilities for conversion into biofuels and other high-value algae-based products. Advanced biofuels show great promise for replacing the existing petroleum-based fuels. One of the largest potential sources for biodiesel and Butanol is derived from algae, a concept that has been extensively investigated and supported by the National Renewable Energy Laboratory (NREL). Algae, a non-food source of biomass, have production rates that far exceed rates of other plants. As

breakthroughs occur in the processing of algae into bio-based fuels occur, the focus will turn to high-capacity cultivation that is optimized for biofuel production.

Southeast Michigan Regional Energy Office -- \$1,287,490

We request \$1,287,490 for the Michigan Suburbs Alliance to start the Southeast Michigan Regional Energy Office. This office will assist local governments in transforming energy use through conservation and renewable energy products. ICF International estimated that \$1,000,000 of federal investment in local projects creates ongoing annual savings of \$500,000 and 3,000 mega tons of carbon dioxide per year. The Southeast Michigan Regional Energy Office will expand their efforts to a four-county region and has the potential to be a replicable national model for intergovernmental cooperation. Pooling resources allows governments to reduce administrative costs and expand benefits. While the Office has a self-sustaining funding plan, it requires a startup investment to provide energy audits, data analysis and technical and legal assistance.

Sustainable Green Field Station -- \$875,000

We request \$875,000 for Olivet College for an environmentally sustainable field station and learning center. "The Green House" would be located at the college's biological preserve, just two miles from campus on the shores of Pine Lake, and would serve as an ecology teaching laboratory as well as an education facility for green technologies. The building would serve both as a traditional science laboratory and classroom, as well as an example of the latest in sustainable building techniques and energy conservation technologies. It will incorporate the latest technologies for environmental sustainability and energy efficiency.

United Way Energy Efficient Building Project -- \$1,250,000

We request \$1,250,000 for United Way of Southeastern Michigan to expand its existing energy efficiency program for non-profits. Specifically, the program will address the following: utilize expert consultants to complete energy audits for non-profits; provide 3 to 1 matching grants for larger facilities to implement major energy efficient improvements; and provide 1 to 1 matching grants for smaller facilities to implement low-cost energy efficient measures. Non-profits have faced rising energy costs alongside a decline in fundraising, forcing redirection of scarce resources from valuable programs. Funding is needed to achieve these long term savings because restrictions placed on United Way by private foundations do not allow for such investment.

University of Detroit Mercy Energy Efficient Chemistry Building Renovations -- \$1,333,000

We request \$1,333,000 for University of Detroit Mercy for the renovation of its chemistry building. Originally built in 1926, the chemistry building requires a major renovation to support innovative teaching methods with an advanced learning environment. Student demand for science programs is booming, fueled by interest in occupations related to health care, environmental issues, biotechnology, and alternative fuels and materials development. The proposed energy efficient renovations, including a green roof and infrastructure upgrades, will support innovative scientific education that uses "learning through discovery," leading to a new generation of more capable and responsible scientists and medical professionals. This initiative will also help create jobs in the Detroit region.

UP Wind Development Model and Superior Wind Park -- \$1,300,000

We request \$1,300,000 for the Superior Watershed Partnership to develop a model for new wind

energy projects in Michigan. This cooperative research and demonstration project will further the goals of the Michigan renewable portfolio standard by creating a replicable model for developing successful wind energy projects throughout Michigan. In addition, the funding will be used for the Superior Wind Power Project, located in Marquette County, Michigan. This project will provide clean alternative energy and employment opportunities for residents of the Upper Peninsula of Michigan. The Superior Wind Power Project will dramatically reduce carbon dioxide emissions while conserving water and diversifying Michigan's energy portfolio.

Waste-to-Energy Biomass Project -- \$5,000,000

We request \$5,000,000 for Wyandotte Municipal Services for the conversion of its coal-fired utility boilers to renewable biomass generation facilities. Woody biomass electric generation emits 90 percent less greenhouse gases, virtually no sulfur or particulates, and low mercury and volatile organic compounds. Use of waste wood can also reduce landfill loads. This energy source can contribute to the Governor's goal of expanding Michigan's renewable energy portfolio to 10 percent by 2015 and 20 percent by 2025.

Wastewater Electric Power Generating System – \$5,106,184

We request \$5,106,184 for Criptonic Energy Solutions, Inc. to construct the Wastewater Electric Power Generating System (WEPGS), which will provide economical and environmentally friendly electric energy to a combination sewer system/pre-treatment facility located in southeastern Oakland County. This facility will be the first of its kind, generating its electrical energy needs through the kinetic energy flow of the sewer system. The energy is transmitted to a pumping facility where it will be used by the Oakland County Water Resources Commission.

Water Plant Wind Turbine -- \$2,200,000

We request \$2,200,000 for the City of Battle Creek for the installation of a 2 megawatt wind turbine at the Verona Pump Station. This funding would provide alternative energy to power water production, treatment, and distribution.

Wayne State University - Multidisciplinary Biomedical Research Science Building – \$2,000,000

We request \$2,000,000 for Wayne State University for a Multidisciplinary Biomedical Research Building. This facility will house sophisticated research for bioengineering, biotech, and integrative biomedicine initiatives aimed at addressing health disparities, traumatic brain injuries and neuro sciences, cancer and cardiovascular disease. The building will also be the headquarters for the Detroit Regional Center for Translational Research, an incubator for job and business creation in this field.

Webberville Community Schools Lighting and Energy Conservation -- \$50,000

We request \$50,000 for Webberville Community Schools for energy efficiency improvements. This funding will be used to install lighting sensors and controls throughout classrooms and offices to obtain savings in areas that are not being used while providing service for the areas that are being used. Funding will also be used for the insulation of exterior windows and ceilings to increase the energy efficiency of the heating and cooling system.

Wheel Hub Motor Research and Development for Next Generation Hybrid Electric and Battery Electric V -- \$3,400,000

We request \$3,400,000 for Magna Electronics/Intelligent Power Systems for the development of wheel motors that will provide high performance capabilities for next generation hybrids and advanced electric vehicles. Specifically, this project will assess hub motor technologies, materials, and architectures and will integrate these technologies into a fully equipped electric vehicle for testing and evaluation to determine the optimal combination of technologies. Future hybrid electric and battery electric vehicles must meet consumer demands for safety and performance in a range of driving and environmental conditions. The project will therefore focus on developing wheel motors capable of meeting those demands while reducing system costs.

Wind Resource Gratiot County Wind Farm 5,000,000

We request \$5,000,000 for Wind Resource, LLC, for the completion of initial development of the Wind Resource Wind Farm, located in Gratiot and Saginaw Counties. The Wind Resource, LLC has developed the project, securing approvals, negotiating easement agreements, obtaining certain permits, convening meetings and providing public education. The Wind Resource Wind Farm will serve as a demonstration project for new a new wind blade technology. Once this technology is proven it will make wind farms more economical, thus creating a larger wind market.

Wood Chip-Powered CoGeneration Facility -- \$1,100,000

We request \$1,100,000 for Northern Michigan University (NMU) for its wood-chip powered cogeneration facility. NMU is actively considering a Combined Heat and Power/Cogeneration addition to this existing plant. The initial project design is to utilize a solid fuel (multi-fuel capable) high pressure boiler rated at 120,000 to 140,000 pounds per hour, capable of burning wood chips, coal, and natural gas integrated with a 7 to 10 megawatt extraction steam turbine capable of meeting the University's thermal and electrical needs. The plant addition and learning facility cost is estimated at \$55 million. Based on the projected operational and wood fiber needs of this plant, it is estimated that the plant could create 90 to 120 new jobs in the Upper Peninsula.

Woody Biomass Renewable Energy Power Plant -- \$2,500,000

We request \$2,500,000 for Menominee Business Development Corporation for the construction of a 20 to 50 megawatt power plant located in Menominee, Michigan. The plant would be fueled by woody biomass and process sludge generated at its paper mill facility. In addition, the use of woody biofuel would support jobs in the logging and trucking industries in the Menominee region. The project could also create a renewable energy source for the region because extra power not used at the mill could be returned to the grid.

ARMY CORPS OF ENGINEERS PROJECTS

AuTrain Flood Analysis -- \$71,000

We request \$71,000 for the Army Corps of Engineers to complete a flood analysis in AuTrain Township in Alger County. The AuTrain community is interested in preventing flooding of the river, thereby protecting a nearby highway and beach that are important to the economy of this small community.

Benton Harbor Ship Canal Project (Small Navigation Project) -- \$4,000,000

We request \$4,000,000 for the Army Corps of Engineers to assist with the Benton Harbor Ship Canal Project. This project includes environmental clean-up, dredging and widening of the Benton Harbor Canal. The community also intends to create a river walk, a bicycle trail, a garden area, benches, lights, boardwalk, and a pedestrian crossing to improve recreational opportunities.

Chicago Sanitary and Ship Canal, Invasive Species Dispersal Barrier -- \$9,200,000

We request \$9,200,000 for the Army Corps of Engineers to continue the design and construction of an electric dispersal barrier to prevent the migration of aquatic invasive species into the Great Lakes, continue a feasibility study, and provide credit to contributing states. The Chicago Sanitary and Ship Canal connects the Great Lakes to the Mississippi River, and is a conduit for invasive species. This project is vital to the protection of the Great Lakes ecosystem from harmful invasive species. This is a cost-effective project because it prevents the accelerated migration of invasive species into the Great Lakes, which costs surrounding states roughly \$200 million annually.

City of Battle Creek, Flood Control Channel Improvements -- \$600,000

We request \$600,000 for the Army Corps of Engineers to improve the flood control channel in the City of Battle Creek. The Army Corps built the flood control channel over a portion of the Kalamazoo River in the 1950s, and the project is now in need of significant maintenance to ensure the integrity of the structure. Funding will be used to rebuild sections of levees, fill cracks, and remove vegetation. The project will decrease flood risks, thereby improving public safety and protecting property.

City of Flint Hamilton Dam Renovation Project -- \$6,000,000

We request \$6,000,000 for the Army Corps of Engineers to renovate the Hamilton Dam in Flint, Michigan. The Michigan Department of Environmental Quality has concluded that there is a possibility that the dam could fail, and a study conducted in 2000 by the Army Corps of Engineers recommended that the dam be replaced. Failure of this dam would be potentially devastating to residents of Flint. This funding would be utilized to remove the dam and incorporate a fixed spillway, along with a fish passage and recreational components. This project would improve public safety and quality of life while protecting property.

City of Frankenmuth Flood Control Dike Improvements -- \$100,000

We request \$100,000 for the Army Corps of Engineers to study improvements to flood control in downtown Frankenmuth. A dike was constructed by the Corps of Engineers in 1965, and it has provided protection from a 100-year flood of the Cass River since that time. However, FEMA has determined the dike no longer provides the 100-year level of protection, and will issue a new floodplain map in 2010. The downtown area is expected to be in the revised 100-year floodplain. The City of Frankenmuth wants to improve the dike so that it provides 100-year flood protection in downtown Frankenmuth. The first step would be a Section 216 Study to consider how to make those improvements.

City of Negaunee Wastewater Infrastructure -- \$5,000,000

We request \$5,000,000 for the Army Corps of Engineers to improve the wastewater system for the City of Negaunee. These improvements are necessary to meet mandated wastewater effluent discharge standards. This project will enable City officials to complete the large-scale, systematic wastewater upgrade that was initiated in 2002. City officials are working closely with U.S. Army Corps of Engineers staff to complete the previously funded components of this project and to meet local match requirements. Funding would provide public health and environmental benefits. This project has its own authorization.

Clinton River (Macomb County) Environmental Restoration (Sec. 206) – \$200,000

We request \$200,000 for the Army Corps of Engineers to help restore the environmental health of the Clinton River. Approximately 1.4 million residents reside within this watershed. Upgrades to this system will benefit the residents of the watershed and will improve the health, welfare and quality of life of the entire regional ecosystem. Funding would support a feasibility study on the Clinton River to investigate the operation of the flood control weir located at the diversion channel. The study will also examine the structural stability of the weir and channel banks as well as the hydraulic and sediment deposition impacts of the Clinton River. Funding will improve this important aquatic ecosystem.

Ecorse Creek Flood Prevention Project, Wayne County -- \$600,000

We request \$600,000 for the Army Corps of Engineers to complete the preliminary engineering and design phase of a project to prevent the recurrent, significant, and costly flooding of the north branch of Ecorse Creek. The requested funds will be used to complete the essential architectural and engineering work to reduce the threat to persons and property from recurrent flooding and to prevent the need for future federal disaster assistance funding. In the long run, mitigation of the Ecorse Creek flooding problem will significantly reduce risks to approximately 146,000 residents spanning nine communities, and reduce the expenditure of public funds on disaster assistance.

Escanaba River Restoration Project (Small Navigation Project) -- \$1,970,000

We request \$1,970,000 for the Army Corps of Engineers to remove sections of a collapsed bridge and pilings from the navigable waters of the Escanaba River in Delta County. The old U.S. Highway 41 Bridge over the Escanaba River was abandoned when the highway was

relocated further upstream. The concrete bridge has deteriorated into a blighted and unsafe condition, and is blocking navigation on the river. It also significantly detracts from the beauty of the river and poses a barrier to further economic development along the riverfront. Additionally, removal of the abandoned bridge would reestablish and enhance the stream corridor, as well as local habitats that sustain native wildlife.

Fife Lake Eurasian Milfoil and Invasive Weed Management Project (Sec. 206) -- \$300,000

We request \$300,000 for the Army Corps of Engineers for the eradication and continued control of invasive weeds, including the Eurasian Milfoil in Fife Lake, located within or adjacent to the Townships of Fife Lake, Springfield Township, and the Village of Fife Lake. These three communities intend to work jointly on invasive weed abatement and control methods over a five year period. The project will improve the environment and enhance economic opportunities.

Genesee County Drain Commissioner - Kearsley Creek Interceptor -- \$1,500,000

We request \$1,500,000 for the Army Corps of Engineers to complete construction on a sanitary sewer system in Genesee County. This funding will be used for improvements on 23 miles of sanitary sewer pipe along with two pump stations that will collect local sanitary sewage and transport it to a compliant treatment facility, thereby eliminating direct discharge of sewage into surface waters, lakes or streams. Continued federal funding for this project is essential to ensure the health and safety of hundreds of thousands of residents in this service area, to provide environmental protection for the area's natural resources, and to comply with future environmental standards.

Great Lakes Fishery and Ecosystem Restoration Program (GLFER) in Michigan -- \$10,000,000

We request \$10,000,000 for the Army Corps of Engineers to support Great Lakes Fishery and Ecosystem Restoration Program (GLFER) projects in Michigan. This basin-wide program focuses on funding restoration projects such as dam removal, fish passage construction and wetland restoration. Currently, several projects are underway in Michigan including removal of the Boardman River dams in Traverse City and construction of a fish passage in Frankenmuth. This restoration program is integral to overall restoration efforts throughout the Great Lakes.

Hamar Creek Flood Control Project (Sec. 205) -- \$416,200

We request \$416,200 for the Army Corps of Engineers for a flood control project at Hamar Creek in Houghton and Keweenaw Counties. This funding would be used to repair sedimentation and drainage problems at Hamar creek. Flooding of the creek affects residential areas and US-41, which is especially susceptible to flooding during spring run-off.

Hamburg-Green Oak Huron River Hydrological / Flood Mitigation Study -- \$100,000

We request \$100,000 for the Army Corps of Engineers to complete a hydrological study of the Huron River that would include recommendations for flood mitigation strategies in Hamburg and Green Oak Townships.

Lake Shamrock Aquatic Restoration Project -- \$400,000

We request \$400,000 for the Army Corps of Engineers for a two-phased aquatic ecosystem restoration project. The first phase of the project is to complete a project feasibility study of Lake Shamrock, a 64-acre lake located within the geographical boundaries of the City of Clare. The second phase is to dredge the lake and restore the aquatic ecosystem.

Lansing Grand River Waterfront Restoration -- \$1,000,000

We request \$1,000,000 for the Army Corps of Engineers to continue its partnership with the City of Lansing in the Grand River waterfront restoration project. In 2002 Congress provided study authority for a waterfront restoration master plan on the Grand River in Lansing and Congress then provided \$100,000 in FY03 for a Corps reconnaissance study. The Lansing study was completed in 2004, and the Corps concluded that there was a federal interest in a range of projects such as shoreline and ecosystem restoration, flood control, dam modification/removal, recreational, and other potential projects. The Corps also recommended a continued partnership with Lansing to establish a full Grand River master plan for the Grand River.

Macomb County Wastewater Disposal System Master Plan Improvements Project -- \$5,000,000

We request \$5,000,000 for the Army Corp of Engineers for a combined sewer overflow control program within Washington and Ray Townships. Urbanization along Hayes Road has led to an increased burden on the existing sewer system. Improvement and extension of the combined sewer overflow system will improve the health and welfare of 120,000 residents living in the service area, remove failing septic systems, and protect the area ecosystem by reducing discharges from water treatment plants.

Northwestern Michigan College Harbor Renovation Project (Sec. 107) -- \$1,100,000

We request \$1,100,000 for the Army Corps of Engineers to renovate the harbor at the Northwestern Michigan College Great Lakes Maritime Academy (GLMA) in Traverse City. The Great Lakes Maritime Harbor is truly unique in its ability to serve as an educational, research, community access, and professional training harbor. The funding used for this project will serve multiple purposes by supporting the operations of the GLMA, our nation's only freshwater state maritime academy; providing research and access for the Great Lakes Water Studies Institute; providing public access to a new fishing pier; and allowing for research access by partner universities.

Oakland County - George W. Kuhn Drain Project -- \$19,000,000

We request \$19,000,000 for completion of a combined sewer overflow control program in Oakland County using cost-effective design standards, which would decrease bacterial levels in Lake St. Clair and downstream areas. The project would include replacement of the flushing system, removal of excess storm water into the combined system, and completion of an operations and maintenance center. If funded at the level requested, the project would be completed, and no additional funds would be required.

Soo Lock Replacement Project -- \$108,000,000

We request \$108,000,000 for the Army Corps of Engineers to continue construction on the additional Poe-sized lock in Sault Ste Marie. Shipping on the Great Lakes is critical to the economic vitality of the region. Total annual shipping on the Great Lakes exceeds 180 million tons, about half of which goes through the Soo Locks. Funding for the improvement of the Soo Locks is critically important to navigation in the Great Lakes and to the nation. Two-thirds of the carrying capacity of the US Great Lakes fleet is now limited to the one large lock (the Poe Lock) at the Soo complex. More than 70 percent of the raw materials needed by the steel industry, as well as low-sulfur coal and grain exports, rely on transportation through the Soo Locks. If the Poe Lock should fail, shipping between Lake Superior and Lake Huron would essentially cease, and the steel industry, along with steel and coal-reliant industries, would be crippled. Agricultural industries dependent on farm exports would also be severely harmed.

St. Clair River and Lake St. Clair Management Plan -- \$3,000,000

We request \$3,000,000 for the Army Corps of Engineers to implement the St. Clair River and Lake St. Clair Comprehensive Management Plan. This project will evaluate causes of environmental stress on the St. Clair River and Lake St. Clair and develop recommendations for management priorities and potential restoration measures. The Corps will establish and lead a partnership of appropriate federal agencies and the State of Michigan to promote cooperation in the management of the St. Clair River and Lake St. Clair watersheds and to develop and implement projects consistent with the management plan.

Village of Dimondale Lift Station Alarm System – \$100,000

We request \$100,000 for the Village of Dimondale to upgrade the alarm system for ten lift stations in the collection system for the Dimondale/Windsor waste water treatment plant.

Village of Lake Linden Sewer Project – \$423,000

We request \$423,000 for the Village of Lake Linden to complete the restoration of the 2nd Street storm sewer. This storm sewer passes through a densely populated portion of the Village and is deteriorating annually. Construction began on this project in 2003 after the flooding disaster of May 2002. Leaving this last section unfinished threatens the integrity of the work that was completed in 2003 and 2004. Funding will help protect human health and the environment.

O&M MICHIGAN NAVIGATION - BREAKWATER REPAIRS– \$13,496,500

We request \$13,496,000 for the Army Corps of Engineers to make repairs, renovations and improvements to the following federally authorized projects in Michigan:

O&M/Breakwater Repairs - Cedar River Breakwater Extension -- \$1,100,000

We request \$1,100,000 for the U.S. Army Corps of Engineers to extend the Cedar River breakwater to protect the mouth of the river and divert sediments. The loss of the original protective structure has caused considerable sedimentation infiltration into the mouth of the river, thus requiring significant dredging. The existing east breakwater does not sufficiently divert littoral drift sediments.

O&M/Breakwater Repairs - Grand Marais Breakwater Reconstruction -- \$7,208,000

We request \$7,208,000 for the Army Corps of Engineers to reconstruct the failed federal breakwater at Grand Marais. The breakwater structure initially built by the ACOE has been destroyed over many years by wind and wave action. The resulting loss of protection for the Grand Marais harbor has caused dangerous boating conditions on a treacherous stretch of Lake Superior. The reconstruction of the federal breakwater will improve public safety and has the potential to save lives.

O&M/Breakwater Repairs - Lexington Harbor -- \$5,188,500

We request \$5,188,500 for the Army Corps of Engineers to renovate and repair the breakwater in Lexington Harbor. Renovation of the existing breakwater is necessary to prevent excessive infiltration of sand into the harbor which requires annual dredging. Funding will assist in sealing the breakwall and increasing its height to prevent sand from entering the harbor. Funding will improve public safety and provide long-term taxpayer savings.

O&M MICHIGAN NAVIGATION - DREDGING – \$65,273,000

We request \$65,273,000 for the Army Corps of Engineers to dredge a number of federally-authorized harbors, channels, and waterways in Michigan. Throughout the Great Lakes, there are significant dredging and other operation and maintenance needs. The Army Corps of Engineers estimates a backlog of about 18 million cubic yards of dredging at commercial Great Lakes harbors and channels alone. This dredging backlog has been exacerbated by historically low water levels, and has had very real impacts on Great Lakes shipping. Several freighters have gotten stuck in Great Lakes channels, ships have had to carry reduced loads, and some shipments have simply ceased altogether. Dredging to proper depths is critical not only for Michigan's economy, but for the nation's economy. There is also a need to dredge and maintain shallow draft harbors for public safety reasons so that boaters can get to safe harbors. Also, dredging shallow draft harbors is critical for providing economic opportunities for Michigan coastal communities, many of which rely entirely on the boating industry for jobs. In addition to the projects described below, funding is requested for the following Michigan projects: Alpena Harbor - \$1,875,000; Au Sable Harbor - \$250,000; Black River, Port Huron - \$1,740,000; Bolles Harbor - \$228,000; Channels In Lake St Clair - \$2,106,000; Charlevoix Harbor - \$203,000; Clinton River - \$1,390,000; Detroit River - \$6,935,000; Eagle Harbor - \$165,000; Frankfort Harbor - \$345,000; Grand Haven Harbor - \$1,875,000; Holland Harbor - \$3,312,000; Keweenaw Waterway - \$7,973,000; Lac La Belle - \$260,000; Ludington Harbor - \$2,600,000; Marquette Harbor - \$986,000; Menominee Harbor - \$233,000; Monroe Harbor - \$831,000; Port Austin Harbor - \$875,000; Port Sanilac Harbor - \$376,000; Presque Isle Harbor - \$335,000; Rouge River - \$233,000; Saugatuck Harbor, Kalamazoo River - \$400,000; Sebewaing River - \$1,275,000; South Haven Harbor - \$150,000; and White Lake Harbor - \$173,000.

O&M/Dredging - Arcadia Lake Dredging -- \$170,000

We request \$170,000 for the Army Corps of Engineers for the dredging of the federal navigational channel at Arcadia Lake. This is a significant channel that serves as the link with Arcadia Harbor, which is a part of the State of Michigan's Harbor of Refuge network. Funding will improve public safety and is necessary for navigation.

O&M/Dredging - Bayport Harbor of Refuge – \$750,000

We request \$750,000 for the Army Corps of Engineers to dredge the federal channel and Harbor of Refuge at Bayport. This Harbor of Refuge, located in the large, southeastern side of Saginaw Bay, has silted in and become too shallow for boats to safely access the protection of the breakwater. Without funding, the safety of the public is threatened. Also, the loss of this harbor is an economic setback to an already depressed local economy.

O&M/Dredging - Big Bay Harbor of Refuge -- \$121,000

We request \$121,000 for the Army Corps of Engineers to dredge the Big Bay Harbor. Low lake levels coupled with littoral drift causes shoaling in the harbor channel and basin which make the harbor inoperable. Funding would improve public safety and is needed for navigational purposes.

O&M/Dredging - Leland Harbor Dredging -- \$212,000

We request \$212,000 for the Army Corps of Engineers to dredge the federal navigational channel and entrance to Leland Harbor. Leland Harbor is a Harbor of Refuge that serves a very dangerous stretch of water in northern Lake Michigan. This funding will allow for continued access to the Harbor of Refuge, enhancing public safety and possibly saving lives.

O&M/Dredging - Les Cheneaux Islands Channels – \$2,160,000

We request \$2,160,000 for the Army Corps of Engineers to dredge and maintain the federal channels in the Les Cheneaux Islands. The channels are the sole link between mainland commercial districts and island residential communities, providing access to basic goods and services upon which the economies of Cedarville and Hessel depend. Navigable channels are critical to the islands' tourism-based economy.

O&M/Dredging - Little Lake Harbor – \$408,000

We request \$408,000 for the Army Corps of Engineers to dredge the federal navigational channel and entrance to Little Lake Harbor. Little Lake Harbor is located on Lake Superior in a very remote area of Michigan's Upper Peninsula. Due to the rough water conditions that occur at this location, sediment continuously builds-up in the navigational channel, which then necessitates frequent dredging. This 60 mile stretch of hazardous water extends from Whitefish Point to Grand Marais with no protection for traveling

boaters. This location is crucial to all boaters that traverse from the Soo Locks westward on Lake Superior. Funding would improve public safety and possibly save lives.

O&M/Dredging - Manistee Channel/Harbor -- \$400,000

We request \$400,000 for the Army Corps of Engineers to dredge the Manistee channel. It is estimated that more than 2,000 jobs are created by manufacturers that rely on this commercial deep-water harbor for shipping. Funding will be used to dredge the navigational channel at Manistee Harbor and ensure it remains operational.

O&M/Dredging - Manistique River -- \$2,000,000

We request \$2,000,000 for the Army Corps of Engineers to dredge the Manistique River. Last dredged in 1967, this federally authorized harbor has experienced shoaling, limiting the use of the harbor for commercial and recreational purposes. The River's location on northern Lake Michigan is an essential Harbor of Refuge for commercial and recreational vessels. In 2008, the Army Corps completed a survey of the harbor in which it estimated that 130,000 cubic yards of sediment must be removed to maintain the authorized maintenance depth of 12 feet. Funding is essential to navigation and improving public safety.

O&M/Dredging - Muskegon Harbor -- \$1,600,000

We request \$1,600,000 for the Army Corps of Engineers to dredge Muskegon Harbor. During 2006, 2.2 million tons of cargo was handled by this port, which currently has a dredging backlog of roughly 73,000 cubic yards. Funding is essential for keeping this harbor open and functional, and to prevent job losses in industries reliant on Great Lakes shipping.

O&M/Dredging - New Buffalo -- \$200,000

We request \$200,000 for the Army Corps of Engineers to dredge the federal channel in New Buffalo. New Buffalo is a boating community with an economy that relies entirely on its harbor's access to Lake Michigan via the Galien River. A September 14, 2008 storm caused an immense amount of sediment to be discharged into the federal channel which has restricted access to Lake Michigan. The sedimentation problem is compounded by the low water levels in Lake Michigan. The project would dredge the federal channel to remove the shoaling which prevents boats from accessing Lake Michigan. Dredged material would be used to supplement a beach nourishment area established by the Corps. Without the dredging, the City and surrounding area will see a significant decline in tourism and related jobs.

O&M/Dredging - Ontonagon River -- \$1,236,000

We request \$1,236,000 for the Army Corps of Engineers to dredge the Ontonagon River. Annual dredging is necessary to keep the village of Ontonagon from flooding and to maintain the supply chain for manufacturers in the region, which are reliant on this port

for shipments. Funding will prevent flooding, ensure reliable navigation, prevent job losses, and enhance economic development opportunities.

O&M/Dredging - Pentwater Channel -- \$185,000

We request \$185,000 for the Army Corps of Engineers to dredge the federal navigational channel at Pentwater Lake. This is a significant channel that serves both recreational and commercial boats. The City of Pentwater also provides a Harbor of Refuge as part of the State of Michigan's Harbor of Refuge system. Funding will improve public safety and provide a reliable navigational system.

O&M/Dredging - Point Lookout Harbor of Refuge/Au Gres River -- \$462,000

We request \$462,000 for the Army Corps of Engineers for the routine maintenance of the federal navigation channel from Saginaw Bay to Point Lookout Harbor. Point Lookout Harbor is the only Harbor of Refuge located between Bay City and East Tawas for boaters to access in inclement weather while traveling on Saginaw Bay or Lake Huron. In addition, the shoaling of the channel has had a significant negative impact on the local economy of the Au Gres area and surrounding communities, which are largely reliant on economic activities generated through recreation and tourism.

O&M/Dredging - Portage Lake Channel/Harbor -- \$6,000,000

We request \$6,000,000 for the Army Corps of Engineers to dredge the Portage Lake channel and to repair channel revetments. Access to Lake Michigan and the \$4 billion Great Lakes fishery is vital to Onkama, a community based around Portage Lake that relies heavily on the economic activity generated by the tourism and recreational industries.

O&M/Dredging - Saginaw Bay and Harbor -- \$7,294,000

We request \$7,294,000 for the Army Corps of Engineers to dredge the Saginaw Bay and Harbor. Roughly 4.2 million tons of cargo was handled by this port in 2006, which currently has an estimated dredging backlog of 1,295,000 cubic yards. Funding is critical to ensuring economic viability and to prevent job loss.

O&M/Dredging - St. Clair River -- \$1,300,000

We request \$1,300,000 for the Army Corps of Engineers to dredge the Saint Clair River. During 2006, 4.9 million tons of cargo was handled by this port. Dredging of the river is critical to navigation.

O&M/Dredging - St. Joseph Harbor -- \$3,651,000

We request \$3,651,000 for the Army Corps of Engineers to dredge the federal navigation channel at St. Joseph Harbor. Shallow draft has caused the loss of a number of shipping companies at this port in recent years. This port was closed for most of the 2008 shipping

season due to unprecedented shoaling. Funding is critical to navigation and to prevent further job loss.

O&M MICHIGAN NAVIGATION – OTHER – \$38,548,000

We request \$38,548,000 for the Army Corps of Engineers to perform operation and maintenance for other authorized Michigan navigational projects that involve work beyond dredging and breakwater repairs.

O&M/Other - Inland Route Alanson Lock Rehabilitation -- \$600,000

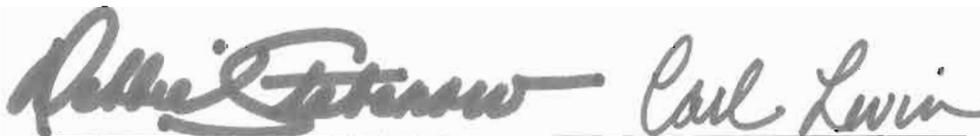
We request \$600,000 for the Army Corps of Engineers to rehabilitate the lock on the Inland Waterway in Alanson. The Inland Waterway is the longest navigable link between Lake Huron and Lake Michigan, nearly connecting the two Great Lakes from Cheboygan to Petoskey. This system is also a flood controlled waterway with two locks protecting many communities. The ACOE has provided temporary repairs to the structure to keep it minimally functional. However, safety is of the utmost importance in the lock's operation, which services approximately 12,000 passages each year. Funding would improve navigation and ensure public safety through the prevention of flooding.

O&M/Other - Soo Lock Recapitalization / Asset Renewal Plan (St. Marys River) -- \$37,948,000

We request \$37,948,000 for the Army Corps of Engineers to upgrade and improve the existing locks in Sault Ste. Marie. The original Poe-sized lock, through which 60 million tons of commerce are transported on an annual basis, was built in 1969 and has experienced mechanical failures and unscheduled outages with increasing frequency during recent years. The Corps has a \$70 million multi-year plan to rehabilitate and modernize this lock to reduce the risk of failure. This is a cost-effective plan because a one-month shutdown of the lock would result in \$160 million in economic losses.

We thank you for your attention and consideration of these important projects. If your staff have any questions about these requests, they may contact Alice Yates in Senator Levin's office at 202-224-6221 or Patty Readinger in Senator Stabenow's office at 202-224-4822.

Sincerely,



Debbie Stabenow

Carl Levin

I certify that neither I nor my immediate family has a pecuniary interest in any of the congressionally directed spending item(s) that I have requested for Fiscal Year 2010, consistent with the requirements of paragraph 9 of Rule XLIV of the Standing Rules of the Senate.

I further certify that I have posted a description of the items requested on my official website, along with the accompanying justification.

Sincerely,



Carl Levin

I certify that neither I nor my immediate family has a pecuniary interest in any of the congressionally directed spending item(s) that I have requested for Fiscal Year 2010, consistent with the requirements of paragraph 9 of Rule XLIV of the Standing Rules of the Senate.

I further certify that I have posted a description of the items requested on my official website, along with the accompanying justification.

Sincerely,



Debbie Stabenow

United States Senate

133 HART SENATE OFFICE BUILDING
WASHINGTON, DC 20510-2204

5-22-09

The Honorable Daniel K. Inouye, Chairman
The Honorable Thad Cochran, Vice Chairman
Senate Committee on Appropriations
S-131, U.S. Capitol
Washington, D.C. 20510

The Honorable Byron L. Dorgan, Chairman
The Honorable Robert F. Bennett, Ranking Member
Appropriations Subcommittee on Energy and Water Development
186 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Chairmen, Vice Chairman, and Ranking Members,

I certify that neither I nor my immediate family has a pecuniary interest in any of the congressionally directed spending item(s) that I have requested for Fiscal Year 2010, consistent with the requirements of paragraph 9 of Rule XLIV of the Standing Rules of the Senate.

I further certify that I have posted a description of the items requested on my official website, along with the accompanying justification.

The following is a list of my support for programmatic requests for the Fiscal Year 2010 Energy and Water Development Appropriations Bill. These requests have a nationwide impact, meet a local, state or national public need, and maintain or create jobs:

\$4,000,000 for Remedial Action Plans (Nationwide) this funding will be used to develop action plans for 43 sites recognized as international Areas of Concern for the restoration and protection of the ecosystem;

\$10,000,000 for Great Lakes Fishery & Ecosystem Management (Nationwide) this funding will be used for ecosystem management and fishery restoration within the Great Lakes;

\$1,050,000,000 for the Weatherization Assistance Program (Nationwide) this funding will help low-income, elderly, and disabled persons improve the energy efficiency of their homes;

\$125,000,000 for the State Energy Program (Nationwide) this funding will support multiple renewable energy programs within the states;

\$150,000,000 for the Industrial Technologies Program (Nationwide) this funding will partner federal and state governments with companies to fund research and development of alternative energy technologies;

\$175,000,000 for the Building Technologies Program (Nationwide) this funding will be used to develop standards for energy efficiency and equipment within cities and states and to improve building codes;

\$145,000,000 for the Energy Information Administration (Nationwide) this funding will be used to provide information to Congress, cities, states, businesses and public on energy market fluctuation and to help determine long term energy goals;

\$3,200,000,000 for the Energy Efficiency and Conservation Block Grant (Nationwide) this funding will be used to expand on the success of local initiatives to increase energy efficiency, promote energy conservation, expand renewable energy supplies, and create jobs, and

\$4,900,000,000 for the Office of Science (Nationwide) this funding will be used to support basic research in energy, biological, environmental, materials, chemical and computational sciences.

Sincerely,

A handwritten signature in black ink, reading "Debbie Stabenow". The signature is written in a cursive, flowing style with a large initial "D".