



MEMORANDUM OF UNDERSTANDING  
BETWEEN  
THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA)  
AND  
ST. JOHN'S UNIVERSITY

Purpose

The purpose of this Memorandum of Understanding (MOU) is to document St. John's University's commitment to partner with EPA as environmental stewards for reducing carbon footprint. This MOU is intended to be a living document. St. John's has signed on as a partner for various voluntary EPA programs that will broaden and more fully define the University's sustainability initiatives and further incorporate sustainability practices into the St. John's culture. For St. John's, these programs will always be works in progress as the University recognizes that commitment to each program will require continuous planning and activities to effect ongoing improvements.

St. John's efforts for continuous improvement involve: using EPA's environmental stewardship programs to develop policies, practices, and specifications for environmentally efficient standards; increasing stewardship awareness; staying current with EPA regulations and guidelines; increasing involvement and recognition of St. John's stakeholders; partnering with local government; and addressing environmental concerns swiftly. St. John's recognizes EPA's program requirements of outreach and involvement, data collecting and reporting, and will strive to become a recognized leader and a candidate for EPA environmental stewardship awards.

For all environmental stewardship programs listed herein, St. John's Director of Energy and Environmental Conservation will be the point person for program work and St. John's Vice President of Facilities will provide the overall leadership. Under this MOU St. John's will participate in the following voluntary EPA environmental stewardship programs.

- EnergyStar Building & Plant Partnership
- GreenScapes Partnership
- Labs 21 Partnership
- WasteWise Partnership
- Coal Combustion Products Partnership
- Combined Heat & Power Partnership
- National Clean Diesel Campaign & Clean Construction USA
- WaterSense Products

The text that follows briefly describes the voluntary EPA environmental stewardship programs as they apply to St. John's. The text also highlights some important sustainability initiatives St. John's has already begun, or is currently planning.

### **1. EnergyStar Building & Plant Partnership**

St. John's is on EPA's registered list as an EnergyStar Partner. St. John's will utilize EPA's program offering within EnergyStar Building & Plants entitled "Menu of EnergyStar Offerings for Higher Education" (the Menu) as the structure for continuous improvement and to meet or exceed the goal of 10% energy reduction under the EnergyStar Program.

Major components of St. John's plan to conserve energy that are expected to occur under this MOU include: expansion of building automation systems; maintenance and repair of mechanical system infrastructure; new construction of an 1800-ton high-efficiency chilled water plant; a comprehensive third-party performance contracting study for constructing combined heat and power plant (cogeneration); and numerous energy conservation projects, i.e., lighting controls, fume-hood retrofits and heat-reclamation systems on science laboratory ventilation systems and variable speed drives and premium efficiency electric motors.

St. John's Director of Energy and Environmental Conservation meets with individuals and teams periodically to strategize for energy conservation. Individuals and team members include: maintenance and operations personnel, building management system controls contractor, representatives from St. John's Residential Life, project managers from in-house Design and Construction and Infrastructure Renewal/replacement manager, private consulting engineers, representative from the New York State Energy Research and Development Agency (NYSERDA), Student Sustainability Coordinators, faculty, staff and administrators.

St. John's intends to institute by the end of 2009 a formal energy policy to provide the foundation for setting goals and integrating energy management into the University's culture and operations. This policy will formalize senior management's support and articulate St. John's commitment to energy conservation for all students, faculty, staff and administrators.

St. John's is committed to lowering the impact on the environment in new construction and renovations to existing facilities. Since 2007, every major construction and renovation project includes an energy analysis for equipment selection and consideration for filing for NYSERDA grant programs. Current construction of the new University Center & Academic Center (UCAC) building specification includes a high-efficient electric-chilled water plant, daylight harvesting, demand-control ventilation, reflective roof covering, variable speed drives, and high efficiency motors. Coal combustion products have been incorporated into the poured-in-place concrete for the new UCAC building and the new Carnesecca Plaza construction. In addition, the current renovation of St. Vincent Hall for dormitory use includes a valance-type heating and cooling system and WaterSense products.

Under this MOU, education, outreach and involvement will include the use of EPA's program offering entitled "Outreach Campaign". To begin, new for the 2008 fall academic semester, St. John's has included a "Sustainable Living Tip Sheet" for students and Resident Advisor sustainability training.

## **2. GreenScapes Partnership**

At St. John's, our green spaces are gifts to preserve and enjoy. St. John's commits to exceed the EPA minimum requirement of undertaking two GreenScapes program activities.

Under this MOU, St. John's will utilize EPA's GreenScapes program to reduce the need to replace landscaping materials and high maintenance plants, work towards reusing landscape materials where possible, recycle organic materials and make decisions to specify and purchase products that are environmentally preferable. St. John's is also interested in composting and turf management and has visited and will continue to study composting systems similar to that of EPA's MOU Partner, Montclair State University.

St. John's makes the commitment to utilize EPA's GreenScapes Tip Sheets and Rebuy Checklist to develop its own written GreenScapes program by end of May 2009. St. John's GreenScapes Program document will be used for continuous improvement and St. John's will keep records of Waste, Energy, Fertilizers, Pesticides and Climate Change activities related to its grounds keeping efforts.

## **3. Labs 21 Partnership**

St. John's University shares the vision, goals and objectives of EPA's Labs 21 program. St. John's will work towards minimizing energy consumption and reducing its carbon footprint while accomplishing its goals in science education and scientific research, at the same time, maintaining health and safety as its highest priority. The University's Director of Energy and Environmental Conservation has joined the newly established code review subcommittee on labs design as part of the NYC Mayoral Challenge 30 in 10.

The science laboratories at St. John's are located in St. Albert Hall on the Queens campus. During the fall of 2008, the Director of Energy and Environmental Conservation will inventory all fume hoods in St. Albert Hall and, with the help of private consulting engineers, will estimate annual energy consumption and carbon footprint, and explore opportunities for conservation measures, such as heat reclamation and high-performance fume hood replacement / retrofit.

Under this MOU, the Director will study the current laboratories design conditions, study the codes and consult with the Director of Environmental Health and Safety to identify programmatic constraints or issues that cause high energy usage. The Director will study EPA's recognized Center of Excellence case studies ("Institutions of Labs for the 21<sup>st</sup> Century"), view EPA's video "Labs 21 Approach" and study EPA's Tool Kit ("Resources for High Efficient Design, Operations and Lab Maintenance"). With the aid of professional engineers, St. John's will conduct a detailed energy audit of St. Albert Hall. This audit will calculate how much energy is consumed annually by lab spaces and include proposed energy conservation measures specifically designed to conserve energy and reduce carbon footprint.

EPA will continue developing its Labs for the 21<sup>st</sup> Century Program, continue to develop outreach and educational materials, provide referrals for technical support and information and continue to encourage colleges and universities to join as partners, creating a network of knowledge and experience for our mutual benefit.

#### **4. WasteWise Partnership and Solid Waste Recycling**

Listed as a WasteWise partner since 2003, St. John's has recently updated its partnership and signed on as a WasteWise Endorser. During the first quarter of 2008, St. John's made significant enhancements to reduce waste by investing \$100,000 in additional recycling containers, created the new position of Director of Energy and Environmental Conservation, hired seventeen part-time student workers as Sustainability Coordinators, started the second year of a two-year contract with a waste management consultant and provided training to building service workers. St. John's also set up monthly reporting and meetings on waste management and started reaching out to students, faculty and staff on recycling through messages on electronic bulletin boards, student news paper articles, scheduled training sessions, and web pages. On Earth Day 2008, St. John's launched sustainability and recycling web pages which are updated periodically. The current routine recycling program includes standard materials of cardboard, paper, plastic, metal, glass, toner cartridges, computers & monitors, batteries and light bulbs.

Re-use, and re-buy are also a part of St. John's planning process for new construction and renovation projects. St. John's current Library renovation project includes: purchasing of used metal library book shelving and metal ceiling materials; specification of construction materials with recycle material content, i.e. carpet and acoustic ceiling materials; specification of environmentally conscious acoustic wall-panel system; reuse of high-density metal compact book shelving; refurbishing existing mechanical air handling equipment; specification of construction materials manufactured locally within 500 mile radius; and specification of construction materials with low volatile organic compounds (VOC) off-gassing, i.e. adhesives and wall, ceiling and floor finishes. When possible, St. John's will contract with construction and debris haulers/recyclers to recycle waste that is generated from new construction and renovation projects.

Partnering with the New York City government for recycling is also a resource for St. John's. In May 2008, St. John's hosted a day for Queens' residents to drop off unwanted electronic equipment that was recycled and partnered with NYC's Office of Recycling Outreach and Education (CENYC) for a food and clothing drive for resident students move-out. In August of 2008, CENYC helped the Office of Residence Life train student resident advisors on recycling required by law and St. John's recycling program. In November 2008, St. John's student workers helped usurer in 1,100 cars for NYC Department of Sanitation Queens electronic waste drop off weekend.

St. John's will set up a waste-reduction team comprised of students, faculty and representatives from central administration, including the Athletics Department and the Office of Residential Life. The Director of Energy and Environmental Conservation will lead the team, which will meet periodically to assess the waste program, identify ways to reduce waste, expand recycling, work to create specifications for purchasing materials with recycled content, and establish a baseline for measuring progress and meeting goals.

Under this MOU, St. John's will incorporate many of EPA's programs within WasteWise, including the Resource Conservation Challenge to manage materials more efficiently; WARM (an Excel spreadsheet) to estimate greenhouse gas reductions from its recycling practices;

Electronics Challenge to recycle and avoid hazardous materials from entering landfills; Building Challenge to recycle, reuse and reduce construction and demolition materials; and Comprehensive Procurement Guidelines to specify and purchase standard materials containing recycled content. Lastly, St. John's has registered for RecycleMania 2009 competition and organized all its student government and student organizations to adopt and embrace RecycleMania 2009.

In summary, as an EPA WasteWise Partner and Endorser, St. John's will record and improve waste reduction, recycling and re-buy practices and encourage other universities to join as partners.

#### **5. Coal Combustion Products Partnership (C2P2)**

As stated previously, St. John's is currently using coal combustion products in the construction of the UCAC building and Carnesecca Plaza. Under this MOU, St. John's is committing to utilize and increase the percentage of coal combustion products in all appropriate future construction projects. St. John's will apply for partnership in the Coal Combustion Products Partnership Program (C2P2) with the goal to increase coal combustion product usage to 50% by 2011.

#### **6. Combined Heat and Power (CHP) Partnership**

St. John's and EPA both recognize CHP potential benefits for improving energy infrastructure and economic operations and, most importantly, lowering the impact on the environment while meeting the demands for energy. As St. John's investigates and develops its plan for new construction of a CHP plant on the Queens campus, the University will partner with EPA for networking and knowledge-sharing of technical information and to acquire economic and air emissions information for regulatory compliance and carbon footprint reduction.

For all CHP project planning phases, EPA will recognize St. John's need for confidentiality and will work with St. John's to determine the specific needs for information management. St. John's intends to utilize some of EPA's tools and services provided free of charge for direct project assistance including third-party review of the feasibility/design study. St. John's intends to review the current listing of New York State and federal incentives, and information on regulatory treatment of utility rates favorable to distributed generation projects.

Once the new CHP plant is constructed and running, St. John's will record and share greenhouse gas emission information with EPA and the New York City Mayoral Challenge "30 in 10". St. John's will take advantage of EPA's communication link to network with other universities operating CHP plants, and apply for an EPA EnergyStar CHP Award.

#### **7. National Clean Diesel Campaign & Clean Construction USA**

New for 2008, St. John's intends to purchase hybrid vehicles for campus patrol through its Office of Public Safety and in addition, renew its contract with a private shuttle bus service that only uses ultra-low sulfur diesel fuel and has an engine idling policy.

Under this MOU, St. John's will join EPA's Clean Construction USA Program to cooperatively promote and implement measures to effectively reduce emissions from vehicles and other

internal combustion engines used in construction and operation of its facilities, with a focus on diesel engine emission reductions. These activities will lead to a measurable decrease in diesel emissions through the following strategies:

#### Clean Construction Equipment and Clean Fuel Use

Clean construction equipment reduces pollution from conventional diesel fuel-powered construction vehicles and equipment by requiring the use of Ultra-Low Sulfur Diesel (ULSD) fuel and best available pollution control retrofit technologies. St. John's will include the use of clean construction equipment and clean fuel use in its specifications for contractors working on future facility construction and operation. Clean construction equipment includes retrofit technologies for construction vehicles such as Diesel Particulate Filters (DPFs). In combination with the use of cleaner ULSD fuel, this practice will greatly reduce construction vehicle emissions during construction.

#### Enhanced Idling Reduction

Enhanced idling reduction measures reduce fuel consumption and pollution by setting a reasonable time limit for idling and actively encouraging this limit. St. John's will implement idling reduction measures in its own fleet, and encourage its service vendors, contractors, students, faculty and staff to do the same.

### **8. WaterSense Products**

Both St. John's and EPA recognize the importance of using water efficiently. Water-efficient behaviors and the use of quality products that minimize water use can result in: less water drawn from NYC reservoirs; potential improvements to NYC water quality; reduced energy use and CO<sub>2</sub> emissions related to water treatment and pumping; reduced NYC wastewater treatment; and reduced water utility costs.

In 2009, St. John's will: track water consumption across all of its NYC water meters and water/sewer invoices on a quarterly basis through a computerized database system; survey all water using devices to record the current status of water efficiency devices; develop recommendations for reducing water usage; and conduct a pilot program by installing waterless urinals at a select location on the Queens campus.

Under this MOU, St. John's will utilize WaterSense Products, where appropriate. St. John's also commits to following the WaterSense Guidelines to: encourage students, faculty, staff and administrators to conserve water; provide EPA with annual water consumption data and; feature WaterSense products on St. John's sustainability web page.

EPA commits to provide St. John's with WaterSense program news and product information, provide support to St. John's requests for information on WaterSense, and provide materials to assist St. John's in outreach and education, e.g., dormitory WaterSense for student residents.

### **MOU Status Reporting**

In addition to the reporting items associated with EPA Partnership Programs, St. John's will submit an MOU status report to EPA twice per year starting six months after the official signing of the MOU. The report will include an update on the various activities identified in this MOU.

EPA will use this data to determine the environmental benefits associated with St. John's "green" activities and will communicate its findings to St. John's in a prompt matter.

### **Terms and Conditions**

This MOU is not a contractual or a financial obligation instrument. Nothing in this MOU shall obligate EPA or St. John's to expend appropriations or to enter into any contract or other obligations or be cited as the basis for the promise or transfers of funds. Collaboration under this MOU shall be in accordance with applicable statutes and regulations.

This MOU does not restrict EPA or St. John's from participating in similar activities or arrangements with other entities or Federal agencies.

Either party may unilaterally withdraw at any time from this MOU by transmitting a signed writing to that effect to the other party. By mutual agreement, which may be either formal or informal, each party may modify the list of its intended activities set forth above, and/or determine the practical manner by which its goals, purposes and activities set forth in this MOU will be accomplished. Modification to other written parts of this MOU must be made in writing and signed by both Parties.

Nothing in this MOU shall be construed to authorize or permit any violation of any Federal, State or local law, including, but not limited to, any environmental law administered and/or enforced by EPA.

St. John's understands and acknowledges that, as an institution of the Federal government, EPA has a duty to refrain from providing any commercial entity an exclusive privilege without receiving payment therefor and, as a consequence, that EPA's relationship with St. John's in no way affects, alters or otherwise constrains EPA's right to provide similar (or identical) services to, or establish similar (or identical) relationships with, any other entity.

St. John's understands that EPA's participation in this MOU does not constitute an endorsement, express or implied of (a) any policy advocated by St. John's or (b) any goods or services purchased, offered or sold by St. John's or any member.

St. John's shall maintain full right, title and interest in any intellectual property right, including a copyright, in any work product developed solely by St. John's in furtherance of the objectives of this MOU. Any intellectual property developed collaboratively by the Parties will be governed by the Federal Copyright Statute at Title 17 of the United States Code and/or by the Federal Patent Statute at Title 35 of the United States Code.

This MOU does not authorize St. John's to use any EPA logo, trademark or other intellectual property without prior consultation with EPA. This MOU does not authorize EPA to use any St. John's logo, trademark or other intellectual property without the prior approval of St. John's. This MOU does not in any way bypass or alter the obligation of St. John's, in any, to meet any of the specified requirements and/or procedures associated with the individual partnership programs listed in the MOU.

The EPA enters into this MOU under the authority of Section 103 of the Clean Air Act, 42 U.S.C. §7403, Section 104 of the Clean Water Act, 33 U.S.C. §1254, and Section 8001 of the Solid Waste Disposal Act, 42 U.S.C. §6981, Section 6604 of the Pollution Prevention Act, and Section 324A of the Energy Policy and Conservation Act, which provide EPA with authority to undertake cooperative efforts with private organizations to promote the coordination and acceleration of research, studies, training, and other efforts to prevent, reduce and eliminate pollution.

This MOU does not create any right or benefit, substantive or procedural, enforceable by law or equity against St. John's or EPA, their officers or employees, or any other person. This MOU does not direct or apply to any person outside of EPA and St. John's.

**V. Effective Date and Administration**

This MOU will become effective upon signature by the Regional Administrator of EPA Region 2 and the Executive Vice President and Chief Operating Officer of St. John's University. It may be modified or amended by written agreement signed by both parties. Unless otherwise terminated by one of the parties this MOU will terminate at the end of five (5) years from the date of signature unless revised or extended at that time by written agreement of the parties. This MOU may be terminated at any time by either party upon the issuance of a written notice to the other party. The Parties will review annually the provisions of this MOU and its implementation.

AGGREEED AND ACCEPTED  
UNITED STATES ENVIRONMENTAL  
PROTECTION AGENCY  
By:

AGREED AND ACCEPTED  
ST. JOUN'S UNIVERSITY  
By:

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Alan J. Steinberg  
U.S. EPA Region 2 Administrator

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James P. Pellow, Ed.D  
Executive V.P. & COO

Date: \_\_\_\_\_

Date: \_\_\_\_\_