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The White House's Green Button Initiative

Our electricity providers will soon feature a powerful new tool on their websites – a little green button.
Conceived by the White House and developed by the private sector, Green Button is a standardized format for downloading electricity data from utility companies. The idea is simple: providing energy consumption data in a downloadable, easy-to-use electronic format at our fingertips empowers consumers to make more informed decisions about and more actively manage their energy use. Furthermore, making this information available—in standardized file formats—will help spur innovative new consumer applications and devices from entrepreneurs, large companies, and even students.

Over 150 utility companies have already committed to offering Green Button. The service is available to both residential and commercial customers. The current list of participating companies can be found at http://greenbuttondata.org/.

Green Button offers two options – "download my data" and "connect my data." The "download my data" feature enables users to login and download their utility data in a simple spreadsheet format. This feature is already available through participating utility companies to over 43 million households and businesses across North America. The second Green Button option, "connect my data," will enable a consumer to authorize a third-party service provider to automatically receive direct access to their Green Button data. "Connect my data" is scheduled to be rolled out in major U.S. electricity markets in late 2014.

Using Green Button can provide federal agencies with more detailed energy data without costly installation and maintenance of physical meters. The service can also improve agency electricity data quality. For example, it can be used to correct data anomalies in energy management systems such as spikes, blanks, and null values. The U.S. General Services Administration recently completed a pilot study and found that Green Button corrected data for 12 percent of meters that were down during the study period.

The U.S. Environmental Protection Agency is currently developing tools to both accept and provide Green Button data through its ENERGY STAR™ Portfolio Manager system. A translator tool will offer automatic data transfers of Green Button data from electricity providers to the Portfolio Manager system and from Portfolio Manager to third party energy management software. These features are scheduled for roll out in 2015.

So far utility companies have not charged additional fees for offering Green Button capabilities, and they are not expected to do so in the future. Agencies may choose to acquire an energy management system to analyze the data at their own expense.

Currently, Green Button is only available for electricity consumption data. Cost data, which is a function of both consumption and often complex rate structures, is not available through Green Button. The program may expand in the future to include other facility energy and water data types.

The District of Columbia government is currently piloting the use of Green Button to provide 15 minute interval data for nearly 400 buildings managed by the D.C. General Services Administration. This data is available to the public online at www.buildsmartdc.com.
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Green Button Download My Data ®

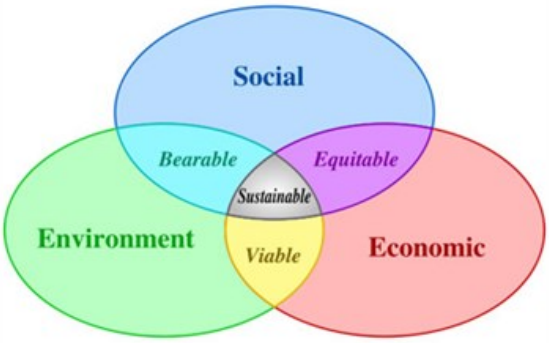
In This Edition

What Does Sustainability Mean to You?

Over the past few decades, the term "sustainability" has evolved and now come to the forefront in modern society. However, it has become so popular as a marketing tool that it is now even being used as a label that implies that practices and habits previously considered bad for the environment might not be so bad, so long as they are "sustainable." We live in a society where most people want to do what is right for the world and the environment around them; however, they are often challenged by other factors including access, economics, convenience, and misinformation. So, what does sustainability really mean?

Sustainability was born from a few concepts including sustainable development, sustainable design, sustainable leadership, and integrated or whole-building design, which all advocated to some extent the consideration of human activity and its impact on natural resources and the surrounding environment. In October of 2009, the President signed Executive Order (EO) 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*. The EO required federal agencies to set a 2020 greenhouse gas emissions reduction target; increase energy efficiency; reduce fleet petroleum consumption; conserve water; reduce waste; support sustainable communities; and leverage federal purchasing power to promote environmentally-responsible products and technologies. The EO quickly became referred to as "the Sustainability Executive Order," as it combined several programs and fostered cross-organizational collaboration toward common goals.

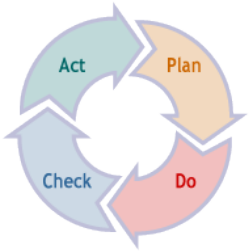
Of the many meanings associated with the term sustainability, one common notion is that it deals with preserving the future of our society by balancing a quest for an improved quality of life with a desire to coexist in harmony with the various species of plants, animals and natural resources we have today. Many argue that the planet's ecosystems are deteriorating



and the climate is changing; and we are consuming so much so quickly that we are already living far beyond the earth's capacity to support us. Therefore, it is a time to act responsibly. While federal agencies are now focused on achieving the sustainability mandates with the intent of reducing carbon footprint and decreasing reliance on fossil-based energy, all of which support that common notion, not all organizations have such noble or responsible objectives in mind.

Absent a sustainability regulatory and oversight organization, it is seemingly easy for organizations to latch on to the sustainability movement in an effort to help promote and market their goods and services. From a business perspective, there is a notion that if a product or service is sustainable, then it will be more highly desirable by the public and ultimately more profitable. This notion is being applied more broadly in an effort to make profit-bearing actions appear better, safer, or more considerate of the factors that society deems important. For example, if the weapons used by poachers of endangered species are made from recycled metal, does that make their poaching "sustainable"? Or, the severed shark fins used to make soup are accumulated in recycled plastic bags, does that make shark-finning "sustainable"?

We have the potential to preserve the world for generations to come through sustainable actions and practices; however, if we elect to use that term to guide our actions, our purchases, our investments, and our sponsorships, shouldn't we know the context in which the term is being applied? Shouldn't we as consumers and stewards of the environment demand to know how an organization concluded that their product, service, practice, etc. was sustainable? Our role within the Department of Commerce is to apply sustainability as defined and used by the Administration to reduce our carbon footprint, increase the energy efficiency of our facilities, reduce our reliance on fossil-fuels, procure environmentally-responsible products, and conserve water and energy. We can all make a difference in our personal and professional lives, but give some thought to the word "sustainability" the next time you hear it used.



New Energy and Environmental Management Bulletins

In June 2014, the Deputy Assistant Secretary of Commerce for Administration and Senior Sustainability Officer Frederick E. Stephens authorized the Director of the Office of Facilities and Environmental Quality to publish and release Energy and Environmental Management Bulletins, as necessary, to provide updated guidance in between formal updates to the Energy and Environmental Management Manual (E&EMM).

These bulletins will convey requirements associated with new laws, regulations, or mandates in the areas of energy efficiency and environmental compliance. The bulletins will also help Operating Unit facility managers determine applicability to their facility and facility-related operations. Operating Unit Sustainability points of contact will be required to report facility-level applicability determinations through the quarterly sustainability dasher process so that the Department's compliance posture can be assessed as part of the Department's Environmental Management System.

Read the latest bulletins on OSEEP's website at http://www.osec.doc.gov/ofeq/OSEEP/Docs_Newsltrs.html

Meet A DOC Sustainability Community Member: Mike Blackmon

Say hello to Mike Blackmon, a bioenvironmental engineer and former member of the United States Air Force. Blackmon now serves as an Environmental Management Group Leader at NIST in their Gaithersburg, Maryland facility.

Mike is responsible for NIST-Gaithersburg's environmental compliance programs. He oversees and manages hazardous waste disposal, air emissions control, wastewater discharge, storm water management, spill prevention control and countermeasures, underground storage tank management, and compliance with the National Environmental Policy Act.

As NIST's sustainability point of contact, Mike works with various NIST staff to promote and track progress on conservation measures, pollution prevention, and waste minimization efforts. He reports progress to the NIST National Environmental Management System team, NIST director, and DOC's Office of Sustainable Energy and Environmental Programs.

Of particular importance to NIST's sustainability mission is their Office of Facilities and Property Management's current development of a number of energy conservation measures that may be completed through an Energy Savings Performance Contract. One project being considered is the possible construction of a combined heat and power plant. Mike plays an integral role in the design review process and addresses the air permitting requirements for the contract. He states that "the expected energy conservation will be significant." Additionally, over the next year, NIST is proactively designing a storm water management structure to provide treatment for a portion of the NIST-Gaithersburg's site rainwater runoff.

"I work closely with NIST's facilities staff that is completing the work that will enable NIST to achieve our sustainability goals," Mike added. The staff has completed numerous projects that have achieved significant reductions in energy and water use. They have been able to reduce their gasoline and diesel fuel use by 29 percent, their water use by 16 percent, and their overall energy intensity by 6.5 percent.

The Department's Green Grants Program

Great idea project idea, Don! How much will it cost for the solar panels? $100,000! We don't have that much in the budget. We only have $50,000. I guess it'll have to wait until next year.

Sound familiar? Well the Department, through its Green Grant Program (GGP), might be able to help.

The GGP was created in FY 2013 to provide a dollar for dollar cost matching source of funding for sustainability, energy, environmental and quality of life (child care centers and fitness centers) projects, that meet certain criteria based on statutory requirements and a set of business rules that all operating units, or bureaus, helped develop.
The program is administered by an intra-bureau panel that reviews and recommends projects based on cost savings, return on investment, and savings to investment ratio.
In its first year, the Department awarded $350,000 in cost matching funds to five of 13 projects. This year, the department awarded $250,084 in cost matching funds to all 12 requested projects. In FY 2015, the Department has budgeted $350,000 for new grant projects.

Projects must meet one or more of the following criteria:

-Increase, maintain, and verify recycling rates

-Improve recycling educational knowledge and outreach

-Influence progress against one or more of the Department's sustainability goals

-Enhance environmental stewardship or compliance

-Increase viability and functional usability of employee quality of life projects

So if you have a good project out there, don't let sit on the shelf. Put in for a GGP cost-matching grant! GGP requests for projects were announced in August 2014, with a submission deadline of December 2014.
Information on the GGP can be found at http://www.osec.doc.gov/ofeq/OSEEP under the Quick Links grouping.
If you have questions, please contact Greg Falzetta at (202) 482-1080 or gfalzetta@doc.gov.

Chesapeake Bay Making Progress

This summer, the U. S. Environmental Protection Agency (USEPA) released its evaluations of the next round of actions that six states and the District of Columbia have committed to undertake to reduce nutrient and sediment pollution to their local waters and the Chesapeake Bay (Bay). The reviews offer a path forward for getting all seven jurisdictions back on track for achieving the goals for a restored Bay.

The U.S. EPA's review of 2014-2015 milestone commitments by Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia and the District of Columbia is coupled with the agency's assessment of the most recent milestones accomplished by each of the seven jurisdictions in 2012 and 2013. In addition, the USEPA assessed the actions taken by federal agencies to assist the jurisdictions in meeting these commitments.

"All of the jurisdictions continue to make progress in the various sectors," said USEPA mid-Atlantic Regional Administrator Shawn M. Garvin. "Our assessments also point out that their work over the next two years will have to accelerate in some areas. USEPA will work with the jurisdictions to fill these gaps, and help them achieve pollution reduction goals on schedule." As for the most recent milestone accomplishments, data provided by the seven jurisdictions show that the Chesapeake Bay Program partnership as a whole achieved the 2013 milestone targets for nitrogen and phosphorus. The partners fell short of their reduction commitments for sediment, but collectively they remain on track to meet the 2017 target.

Although nitrogen and phosphorus occur naturally, human activities have caused a large increase in the quantity of phosphorus and nitrogen that enter the Bay through the water and air. Agricultural activities are the largest contributor of nutrient pollution in the Chesapeake Bay region, supplying large quantities of nitrogen and phosphorus into the waters via animal manure, soil erosion, and excessive use of fertilizers.

Stormwater that runs across hard surfaces, like rooftops and parking lots, can pick up pollution containing nutrients as well as litter and deliver them to the Bay. The improper use and disposal of household detergents can carry nitrogen and phosphorus to the waterways. Poor landscaping practices contribute to the cause by adding sedimentation to the waterways.

If you live in one of the seven Chesapeake Bay jurisdiction states, here are a few things that you can do at home to help reach the 2015 milestone targets to reduce nitrogen, phosphorus and sediment levels in the Bay:

-If you have bare spots in your lawn, spread mulch over the bare ground to prevent soil erosion and stop the flow of polluted run-off from your lawn into waterways.

-If you do a landscaping or construction project that involves disturbing the soil, use a soil erosion prevention method or product such as matting to prevent sediment runoff into waterways that lead to the Bay.

-Minimize the use of fertilizers and pesticides in your yard and never apply these products directly before a rainfall.

-If you have a vegetable plot, only used the recommended amount of fertilizer. Twice the quantity of fertilizer does not mean twice the produce.

-Wash your car on grass or gravel rather than pavement so soapy, grimy wash water won't run off your property and end up in the Bay.

-Trash and debris in our waterways have a large and negative effect on aquatic life and the health of the ecosystems. Ensure that all your trash is disposed of properly and find ways to reduce the amount of trash you do produce through reuse, recycling, and buying products with limited packaging.

-Be sure to pick up your pet's waste. Pet waste contains nutrients and bacteria that can wash into local waterways if left on the ground.

For more information and tips on reducing nitrogen, phosphorus, and sediment pollution check out the EPA's Chesapeake Bay website.

Green Button (***cont'd***) is part of the administration's "My Data" initiative to empower consumers with secure access to their own personal health, energy, and education data as well as the President's "Open Data Initiatives" to make government information resources more publicly accessible in computer-readable formats.

President Obama's December 5, 2013, Memorandum "Federal Leadership on Energy Management" called on federal agencies to "where feasible, incorporate Green Button into reporting, data analytics and automation, and processes, in consultation with local utilities."
The U.S. Department of Energy's Federal Energy Management Program is developing guidance for federal agencies on implementing Green Button. In the meantime, agencies are encouraged to check if their utility companies offer Green Button. If they do, work with your agency utility account holder and information technology team to gain access to and explore the data. If not, leverage your purchasing power to request that your utility add this service. When developing energy data management systems, agencies are encouraged to align these systems with the Green Button format to enable ease of connection. Agencies are also advised to request compatibility or access to data in the Green Button format in any future utility provider contracts for energy services.

Further information for federal agencies is available at: http://www.greenbuttondata.org/fed-faq/.