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State of the Union Highlights Clean Energy Progress

In his January 28 State of the Union Address, President Obama focused on a variety of renewable energy and energy efficiency issues, highlighting progress toward a "shift to a cleaner energy economy" and spotlighting solar energy and fuel efficiency.

"The shift to a cleaner energy economy won't happen overnight, and it will require tough choices along the way," President Obama said. "But the debate is settled. Climate change is a fact. And when our children's children look us in the eye and ask if we did all we could to leave them a safer, more stable world, with new sources of energy, I want us to be able to say yes, we did."

The President also spoke about the growth of renewable energy in the United States, saying that "we're becoming a global leader in solar, too. Every four minutes, another American home or business goes solar; every panel pounded into place by a worker whose job can't be outsourced." The President noted that as the United States has increased its energy production, the nation has "partnered with businesses, builders, and local communities to reduce the energy we consume. When we rescued our automakers, for example, we worked with them to set higher fuel efficiency standards for our cars. In the coming months, I'll build on that success by setting new standards for our trucks, so we can keep driving down oil imports and what we pay at the pump."

Among the other energy-related highlights:

— The President proposed new incentives for medium and heavy-duty trucks to run on natural gas or other alternative fuels, and the infrastructure needed to run them.

— President Obama called on Congress to establish an Energy Security Trust to invest in a range of cost-effective advanced vehicle technologies, including electric vehicles, homegrown biofuels, hydrogen, and domestically produced natural gas.

— The President announced a new tax credit to spur investment in the necessary infrastructure to support deployment of advanced vehicles at critical mass. His proposal would be fuel neutral, allowing the private sector to determine if biofuels, electrification, natural gas, hydrogen, or other alternative fuels would be the best fit in different communities.

— In addition, the President proposed to extend the cellulosic biofuel producer credit that expired on December 31, 2013.

As part of the Climate Action Plan released last June, President Obama also directed his administration to work with states to develop clean energy and energy efficiency policies. Under the same plan, the Energy Department has proposed five energy conservation standards and finalized one standard for appliances and equipment. Additionally, the President directed his administration to negotiate an agreement that would eliminate tariffs on environmental goods, including clean and renewable energy technologies.

The president has used the power of the pen to implement a number of energy and environmental strategies over the last year, including the November 2013 release of the Executive Order 13653: Preparing the United States for the Impacts of Climate Change and the signing of the Water Resources Reform and Development Act, (WRRDA) just put into law on June 11, 2014, where he plans to "put Americans to work modernizing our water infrastructure and restoring some of our most vital ecosystems." In our next edition, we plan to further examine the WRRDA and the water infrastructure projects that have been approved through the passing of this act.

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New Light Bulb Energy Efficiency Standards

On January 1, 2014, the final phase of the Energy Independence and Security Act's (EISA) light bulb energy efficiency standards went into effect, requiring 40 and 60 watt bulbs that use about 27 percent less energy than standard incandescent bulbs.

Nationwide*, lighting accounts for about 14 percent of all building electricity use and about 10 percent of home electricity use.* The U.S. Department of Energy estimates the new light bulb energy efficiency standards will save consumers $6 billion in electricity costs in 2015 alone, in addition to moving the U.S. towards energy independence and reducing harmful emissions from power plants. The law moves the U.S. consumer market away from a technology that has changed little in the last 125 years.

The new standards do not apply directly to consumers, i.e. the sale and purchase of traditional incandescent bulbs is still legal. Instead, the law bans the *manufacturing and the importing* of traditional incandescent bulbs while allowing manufacturers to continue to sell off their stock until it runs out. Twenty-two types of specialty bulbs, including appliance bulbs and three-way bulbs, are exempted from the new energy efficiency standards.

Watts measure a bulb's energy consumption. *Lumens* measure a light bulb's brightness. Under the new law, screw-based light bulbs must use fewer watts for a similar lumen output. The standards are technology neutral, which means any type of bulb can be sold as long as it meets the efficiency requirements.

How do light bulbs compare? The standard 60 watt incandescent light bulb provides 13 to 14 lumens per watt. It wastes 90 percent of the electricity it consumes as heat. In contrast, an equivalent compact fluorescent (CFL) bulb provides between 55 and 70 lumens per watt, produces 75 percent less heat, is 75 percent more efficient, and lasts ten times longer than a traditional incandescent. An equivalent light-emitting diode (LED) bulb can provide between 60 and 100 lumens per watt. ENERGY STAR® qualified LEDs use only 20 to 25 percent of the energy and last 15 to 25 times longer than the traditional incandescent bulbs they replace.

When shopping for light bulbs, the new standards shift our focus from watts to lumens. Overall, for dimmer lighting, aim for fewer lumens; for a brighter light, look for a greater number of lumens. For example:

- If you used to buy 100 watt bulbs, look for a bulb with 1600 lumens.
- If you used to buy 75 watt bulbs, look for a bulb with 1100 lumens.
- If you used to buy 60 watt bulbs, look for a bulb with 800 lumens.
- If you used to buy 40 watt bulbs, look for a bulb with 450 lumens.

Light color is another key consideration when shopping for CFL and LED bulbs. Light color is measured on the Kelvin (K) temperature scale. Lower Kelvin numbers mean the light appears more yellow; higher Kelvin numbers mean the light is whiter or bluer. Most ENERGY STAR® qualified bulbs are made to match the color of incandescent bulbs at 2700-3000K. For a whiter light, look for bulbs marked 3500-4100K. For bluer white light, look for bulbs marked 5000-6500K.

Beginning in 2020, EISA will require most light bulbs to be 60-70 percent more efficient than the standard incandescent bulb. Many CFLs and LEDs on the market today meet this requirement.

Earth Day 2014 and the Energy and Environmental Stewardship Awards

In 1970, Senator Gaylord Nelson of Wisconsin created the nation's first Earth Day for the purpose of putting environmental causes on the agenda of the American public. The Earth Day concept went global and now millions of people celebrate Earth Day each year. This year at the Herbert C. Hoover Building (HCHB), the Department celebrated Earth Day on April 23rd. In our main lobby, vendors, organizations, and bureau representatives set up displays promoting environmental and energy friendly products and services.

As Earth Day is also about future generations, the children from our HCHB's day care facility were in attendance, finger painting and digging in a bit of soil to plant their own vegetable seeds. Staff was available throughout to answer questions, inform, and educate the attendees on technologies and practices that promote energy and environmental awareness.

A tradition formed on Earth Day at HCHB is the Office of Sustainable Energy and Environmental Programs (OSEEP)-sponsored Energy and Environmental Stewardships Awards Ceremony. This year marked our 7th awards ceremony. Each year seems to bring more and more awards for highly innovative practices and technology in the energy and environmental arenas.

Teams and individuals from various bureaus were recognized for their contributions and commitment as stewards of the environment. The Commerce Department's Chief Financial Officer and Assistant Secretary for Administration, Ellen Herbst, awarded Departmental employees who demonstrated superior commitment to integrate energy conservation and environmental excellence into their primary mission.

We would like to thank the volunteers for their assistance and commitment in making this event a success. Go Green, and see you all in April 2015!

The United States Department of Commerce's
Energy and Environmental Stewardship Awards
April 23, 2014

In the category of: Alternative Fuel and Fuel Conservation in Transportation
Winner: National Oceanic and Atmospheric Administration, National Marine Fisheries Service

In the category of: Building the Future
Winner: National Institute of Standards and Technology, Office of Facilities & Property Management, Engineering Maintenance and Support Services

In the category of: Electronic Stewardship
Winner: U.S. Census Bureau, Census Computer Services Division, Bowie Computer Center

In the category of: Energy and Water Management
Winner: National Oceanic and Atmospheric Administration, Office of Oceanic and Atmospheric Research, Geophysical Fluid Dynamics Laboratory

Runner-up: National Oceanic and Atmospheric Administration, National Weather Service, Office of Science and Technology's Advanced Weather Interactive Processing System Re-architecture Team

In the category of: Good Neighbor
Winner: United States Patent and Trademark Office, Chief Administrative Officer, Office of Administrative Services

In the category of: Green Dream Team
Winner: U.S. Census Bureau, Associate Director for Information Technology and Chief Information Officer, Local Area Network Technology Support Office

Runner-up: National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Pacific Island Regional Office

In the category of: Green Innovation
Winner: United States Patent and Trademark Office, Chief Administrative Officer, Telework Program Office

Runner-up: National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Pasco Research Station

In the category of: Historic Preservation
Winner: National Oceanic and Atmospheric Administration, Office of Marine and Aviation Operations

In the category of: Recycling
Winner: The Herbert C. Hoover Building Green Store Green Team Volunteers

Runner-up: United States Patent and Trademark Office, Chief Administrative Officer, Office of Administrative Services

In the category of: Renewable Energy
Winner: National Oceanic and Atmospheric Administration, National Ocean Service, Coastal Services Center

Runner-up: U.S. Commerce Department, Office of Facilities and Environmental Quality /Building Services

In the category of: Sustainability Data Champion
Winner: Roxanne Fuhrman and Sudan Saha, United States Patent and Trademark Office, Chief Administrative Officer, Office of Administrative Services,.

Meet A DOC Sustainability Community Member: Richard L. Townsend

Richard Townsend with his grandson Eric

Please help us welcome the newest sustainability community member Mr. Richard Townsend. Richard was appointed as the first Director of the new Office of Facilities and Environmental Quality (OFEQ) on March 31, 2014. As OFEQ Director, Richard oversees the offices of Herbert C. Hoover Building (HCHB) Renovation, HCHB Space and Building Management, Real Property Programs, and Sustainable Energy and Environmental Programs. He reports to the Deputy Assistant Secretary for Administration, who also serves as the Department's Senior Sustainability Officer; therefore, Richard is also our new Deputy Senior Sustainability Officer.

Richard has over 30 years of experience in real property programs, construction administration, master planning, and business improvement in both the federal and private sectors. He is a registered architect in the metropolitan area and a graduate of Carnegie Mellon University. He has designed, constructed, and developed numerous commercial offices, residential buildings, and other properties in the Washington metropolitan area.

Prior to joining OFEQ, Mr. Townsend was a Department of Defense civilian based at the Pentagon supporting the Office of the Secretary of Defense and has held senior positions in the private sector supporting federal clients. Throughout his career, Mr. Townsend has managed recycling programs and incorporated energy and water-efficient features into his work.

Mr. Townsend leads by example at home, where he recycles and re-purposes as much as possible, relies on compact fluorescent lighting, and even locally sources eggs from his own backyard chickens! He and his wife enjoy sustainable gardening and with the bounty enjoy cooking all types of cuisines together. Playing and babysitting his 3 grand-children brings a source of great joy into his life.

When asked about how he plans to incorporate sustainability concepts into his new position, Mr. Townsend stated, "Partnering with our bureaus, we need to facilitate increased communication and information sharing regarding the importance of incorporating sustainability efforts. Sustainability is an ever present, ongoing activity that is incorporated into our everyday lives. Together, working as a team, we can employ integrated design and management principles, work to optimize energy performance, protect and conserve resources, enhance environmental quality, and reduce environmental impacts."

Do I Need A Stormwater Permit for a Construction Projects?

"Well, we finally got the budget approved for our new laboratory. Let's get those bulldozers onsite, and clear the site." Right? Not quite.

Before beginning any construction project, you must consider the stormwater discharges from your site. These discharges are generated by runoff from or across disturbed land, vegetative areas, and impervious areas (e.g., paved streets, parking lots, and building rooftops). Stormwater discharges often contain pollutants in quantities that could adversely affect water quality.

The Environmental Protection Agency defines a land disturbance as an action that results in exposing soil due to clearing, grading, or excavation activities. Construction activities can include but are not limited to: grading; excavation; road building; construction of buildings and structures; demolition; and other construction-related activities. If your project, alone or as part of a larger development plan, disturbs 1 or more acres, you may need a stormwater permit.

To determine if you need a construction stormwater permit for your project you will need to answer the following three questions:

> Will your construction project disturb one or more acres of land?
>
> Will your construction project disturb less than one acre of land, but is designated by the National Pollutant Discharge Elimination System (NPDS) permitting authority (state agency or the Environmental Protection Agency) as a regulated construction activity?
>
> Will stormwater from the construction site flow to a municipal separate storm sewer system, or any waters of the United States, as defined in the Clean Water Act?

If you answered "Yes" to any of the first two questions AND "Yes" to the third question, then you will need to obtain a stormwater permit for your construction activities. Please note that some municipalities may have their own stormwater control programs; therefore, check with your municipality for their own requirements.

For more information on the NPDES Stormwater Program go to: http://www.epa.gov/npdes/stormwater.

Farewell to Green Store Intern Harris Kelly

We would like to recognize and thank intern Harris Kelly for his hard work and commitment to the Office of Sustainable Energy and Environmental Programs (OSEEP) during his time as an intern. Harris started in 2013 helping prepare to open the Green Store and has promoted, organized, and tracked cost savings for the store for the last year. He has worked with OSEEP since he was a rising senior at Springbrook High School in Silver Spring, Maryland, only taking a brief break last summer to tour China and its cultural heritage sites. He says the experience of his China trip and work as an intern at the Department has changed the way he views the world, making him appreciate where he grew up and the freedom found in the U.S.

With his sights set on a business degree and interests in a career related to supply chain management, Harris was a great fit for OSEEP and the Green Store. He played an integral part in the store's success while gaining experiences that will contribute to his life goals. "I felt like while I was here that I definitely gained experience in customer service. I now have an interest in the field of sustainability and the concept of internal reuse and recycling. It is something that I never really thought of before coming to OSEEP. It is innovative and new."

Harris feels that the completion of his internship in combination with his China trip last year prepared him well for college and a career in international business. His interest in supply chain management comes from his preference to work behind the scenes ensuring operations are efficient and economical. As a business professional in the global marketplace, he hopes to live in different countries and experience the various cultures of the world.

Relative to his experience working within the Commerce Department, Harris said, "I had the chance to meet other people in the world of business. I have more confidence in my own ability to interact with other people."

Harris was accepted to six colleges and has chosen North Carolina A&T. We wish him the best of luck and hope he enjoyed his experience with our team as much as we enjoyed working with him.

OSEEP's Green Store Hits $150,000 in Cost Savings and Celebrates its 1-Year Anniversary

The Office of Sustainable Energy and Environmental Programs (OSEEP) would like to recognize Green Store customer Terrence Arth of the Economics and Statistics Administration. Terrence's toner purchase last month turned out to be the Green Store's equivalent of our "millionth customer" by breaking the $150,000 mark in cost savings for the Commerce Department since opening the store last April.

Although balloons and confetti did not shower down upon the Green Store that day, Terrence was still willing to allow us to photograph this momentous event. The Green Store concept would not work without people like Terrance, so we would like to thank all the Green Store patrons that have made it a success. The Green Store is open weekly on Wednesday from 11:30 a.m. to 12:30 p.m. in HCHB #2508. Please stop by and make sure to check out our broadcast announcements for sale and inventory information. Donations are accepted anytime in HCHB #2064.