



# 2013 GreenGov Spotlight Communities

FINAL REPORT

## EXECUTIVE SUMMARY

In 2013, the White House Council on Environmental Quality selected six projects to highlight how collaboration on energy and sustainability across Federal agencies can reduce pollution, increase performance, and save taxpayer dollars. Throughout the year, project leaders worked together to leverage regional resources to help achieve the sustainability goals of President Obama's [Executive Order, Federal Leadership in Environment, Energy and Economic Performance](#).

The projects were showcased under the [GreenGov Spotlight Communities initiative](#), which focused on Federal entities working together to achieve a common goal.

The leadership demonstrated throughout the Spotlight Communities initiative is apparent in the outcomes and lessons learned described in this document. The findings and results will help pave the way for future projects in other regions, whether they are conducted by Federal entities, state and local governments, area businesses or non-profit organizations.

Aligning Government resources through a targeted approach was the catalyst to cut costs and increase efficiencies. We look forward to highlighting the continued work of these projects and welcome new ideas that reflect interagency coordination at the regional level to achieve sustainability goals. The Spotlight Community projects embody the President's call for the Federal community to lead by example.

What we've gathered in this Final Report is a compilation of the innovative and hard work carried out by regional Federal agency leaders. They reduced bureaucracy and overcame resources challenges to lead the way to new energy and sustainability results that will affect new or existing projects for years to come.

Their results also affected our environment during the project's implementation. The Federal Bike to Work Month Challenge included a total of 2,100 participants who rode a total of nearly 240,000 miles, saving roughly 240,000 pounds of CO2 emissions. And the Comparison of Non-Traditional Water Treatment Cooling Towers project saved 318,135 gallons of water in FY2012 with \$1,743.38 in annual cost savings.

I want to say thank you to those who dedicated so much of their time and energy to make these ideas a reality. It's inspiring to see how the GreenGov Spotlight Communities initiative grew and changed the way the Federal Government will do business in 2014 and beyond.

Jonathan Powers  
Federal Environmental Executive

## GREENGOV SPOTLIGHT COMMUNITIES FINAL REPORT 2013

As part of the President's commitments under Executive Order 13514, *Federal Leadership in Environmental, Energy and Economic Performance*, to leverage resources within the Federal Government and lead by example on sustainability, the Office of the Federal Environmental Executive created the GreenGov Spotlight Communities initiative to highlight innovative projects that involved regional Federal agency collaboration and resource sharing.

In 2013, six projects were selected to be tracked throughout the year to document results and share ideas throughout the Federal community. The projects selected were:

- Federal Bike to Work Month Challenge – From Seattle to the East Coast
- National Capital Region Climate Risks Preparation and Adaptation Plan – Washington, DC
- Comparison of Non-Traditional Water Treatment Cooling Towers – Lakewood, CO
- Car Sharing – Chicago, IL
- Seattle Federal Executive Board's Business Case for Sustainability – Seattle, WA
- Federal Aggregated Solar Procurement Pilot – Northern CA

These Spotlight Communities demonstrated how effective coordination across agencies can significantly improve success toward the Administration's energy and sustainability goals. With continued efforts to cut government costs, increase efficiency, reduce carbon emissions, and more, they have shown what is possible when aligning Federal resources, including:

- reduction in greenhouse gas emissions through an increase in Government employees biking to work;
- preparing Federal buildings for the impacts of climate change;
- saving water through alternative treatment technologies;
- creating a baseline understanding for how car sharing works within the Federal fleet;
- encouraging better management attention to sustainability throughout Federal Executive Boards;
- identifying procurement benefits resulting from joint agency purchases of renewable energy.

# FEDERAL BIKE TO WORK MONTH CHALLENGE

## AGENCIES INVOLVED IN THE PROJECT

- Environmental Protection Agency (EPA) Region 10
- Department of Transportation (DOT) National Highway Traffic Safety Administration (NHTSA) Region 10
- 37 agencies, 2 government branches and many states

## DESCRIPTION

The Challenge is a one-month campaign for teams of 4-10 riders to each commit to commute by bike four days during the month. Reporting is done online and the results are tracked by rider, team and organization.

## OUTCOMES

The Challenge was a big success with the help of many agencies. This year's competition expanded into multiple cities across the country, including DC. In total, more than 2,100 Federal employees logged over 240,000 miles during 20,000 biking trips back and forth to work. This is equivalent to saving roughly 240,000 pounds of CO2 emissions and burning 8.6 million calories.

The Department of Interior (DOI) took awards for "Most New Riders" and "Most Overall Riders for an Organization" with over 662 active team riders, 162 of them new to bike commuting.

## HIGHLIGHTS

- 2,100 riders made 20,000 trips and rode nearly 240,000 miles
- Approximately 21 percent were first-time riders

## LESSONS LEARNED

- Maintaining a grassroots approach to the campaign continues to engage participants.
- Getting buy-in from Senior Sustainability Officers is critical to creating awareness and enthusiasm within agencies.
- Continued collaboration with external partner, Cascade Bicycle Club, is also critical.
- Long term: having a dedicated web infrastructure will be key to helping grow a community of Federal bike commuters and for organizers to distribute information in an efficient way.

## FUTURE OF THE PROJECT

This project will continue.

## LEARN MORE

<http://www.epa.gov/fgc/spotlight/bike.html>

# NATIONAL CAPITAL REGION CLIMATE RISKS PREPARATION AND ADAPTATION

## PILOT

### AGENCIES INVOLVED IN THE PROJECT

- General Services Administration (GSA)
- Environmental Protection Agency (EPA)
- Internal Revenue Service (IRS)
- National Capital Planning Commission (NCPC)
- U.S. Global Change Research Program
- National Oceanic and Atmospheric Administration (NOAA)
- National Aeronautics and Space Administration (NASA)
- District of Columbia Government

### DESCRIPTION

The National Capital Region (NCR) Climate Risks Preparation and Adaptation Pilot builds capacity and confidence to address climate risks in a region that is home to the greatest number of Federal employees. The pilot leveraged the combined capabilities of participating agencies to evaluate risks and vulnerabilities on agency operations and devise a plan to manage climate impacts. GSA focused on the Internal Revenue Service (IRS) building located at 1111 Constitution Avenue, NW, Washington, D.C. The IRS has identified this building as both mission critical and vulnerable.

### OUTCOMES

In January 2013, an all-day scenario brought participants together to consider extreme temperature, sea-level rise, and extreme precipitation impacts projected for the long-term. NASA supplied downscaled climate data, IRS brought experience from a flooding event at their facility in 2006, and NCPC provided expertise in comprehensive planning. The scenario tackled impacts to specific systems, facility and supply chain assets, and considered how to identify partners and funding needs.

The team is now moving forward with establishing priorities for creating a climate preparation and adaptation plan for the IRS building and other Federal agencies located at the Federal Triangle site. The plan is expected to be adaptable to many Federal buildings in the National Capital Region and beyond.

### HIGHLIGHTS

- Climate Risks Threshing Session: Understanding to Application
- Identified present, short-term and long-term climate change risks and next steps
- This session can be replicated

### LESSONS LEARNED

GSA and the participating agencies learned many lessons from this project, including:

- Develop a specific climate change scenario for initial pilots. Having a specific scenario to respond to helped participants focus on the climate change adaptation process. Focusing on a specific scenario, the participants charged ahead and identified potential climate risks and strategies to mitigate them, rather than getting caught up in how to handle responding to the climate projection ranges. Once participants understand the process, the group can then step back and look at the broader range of climate projections.
- Coordinate with the Federal climate change leaders. A wealth of climate change expertise exists in the Federal Government, and the experts are more than happy to help. The U.S. Global Change Research program, NASA, and NOAA were essential in ensuring team used the latest

climate projections and assessments for the pilot.

- Be flexible. Every pilot group will have its own pace and dynamics. Adjust your schedule, facilitation techniques, and expectations accordingly to ensure success.

In addition to sharing lessons learned through the GreenGov Spotlight Communities, the team has applied this new knowledge to other climate change adaptation planning initiatives, including the Building a Climate Resilient National Capital Region Workshop. The workshop is co-chaired by NCPC, GSA, NASA, MWCOG, and the Smithsonian Institution to assist Federal, local, and state agencies with climate adaptation planning and to improve regional coordination. Other potential sharing opportunities include a presentation to the Federal Climate Change Adaptation Community of Practice and for any adaptation-focused CEQ workshops.

#### FUTURE OF THE PROJECT

This project will continue indefinitely as the scope is expanding from the IRS building to the broader Federal Triangle site, which houses 13 Federal agencies. GSA is partnering with the Federal Triangle tenant agencies to develop a climate change adaptation plan for the site. The project will also continue to feed into other DC-area climate change adaptation activities, such as pilots and planning activities being organized by the Metropolitan Washington Council of Governments, the District of Columbia, NASA, and the National Capital Planning Commission, as well as informing the US Global Change Research Program of agency science needs. GSA replicated this pilot in Kansas City, Missouri, with its US Department of Agriculture customer, and GSA will continue to expand this work to other regions as resources allow.

#### LEARN MORE

<http://www.epa.gov/fgc/spotlight/capital.html>

# COMPARISON OF NON-TRADITIONAL WATER TREATMENT COOLING TOWERS

## AGENCIES INVOLVED IN THE PROJECT

- General Services Administration (GSA) Region 8
- Department of Energy/National Renewable Energy Laboratory (DOE/NREL)

## DESCRIPTION

Cooling towers, which are installed in many Federal buildings, consume large amounts of potable water and contribute greatly to annual utility, maintenance and operation costs. Conventional cooling towers require that chemicals and fresh water are periodically added to the cooling tower water to prevent scale formulation, hinder biological growth, and inhibit corrosion in the chillers and piping systems. This project analyzes several non-chemical cooling tower water treatment systems that, potentially, can reduce GSA building operation costs through decreased water and chemical costs and improved chiller energy efficiency. The primary objective of this project is to save water through better management of chemical treatment processes.

## OUTCOMES

Denver Federal Center Buildings 25 and 67 dropped building water use over 15 percent in a single year and saved over 1 million gallons each by using new technologies. There is potential for an estimated reduction of 20.29 acre-feet of water annually if replicated campus wide. This water savings equates to enough water to supply an additional 50 households annually.

## HIGHLIGHTS

- 318,135 gallons saved in FY2012
- \$1,743.38 in annual cost savings
- 20+ year simple payback
- Additional maintenance – algae growth problem
- Increased cleaning and chemical need from treatment

## LESSONS LEARNED

- Include operations and management staff early
- Include protection of equipment within contract
- Test water chemistry
- Partner with local water company for potential rebates
- Ionizer used to treat algae blooms was initially set too low
- Energy use increased due to motor constantly running
- Water savings was minimal and additional cleaning was significant
- Collected third party verified results for this project based on the projected NREL report. A third party report done properly will not only validate the results but provide a concise package that explains different options and the best way to proceed
- Once the report is published, will help others replicate results

## FUTURE OF THE PROJECT

The group will continue their efforts and continuously seek to keep excitement high and people talking about this project. Regional events not aimed specifically at Federal Government groups are the next audience this group will target.

## LEARN MORE

<http://www.epa.gov/fgc/spotlight/towers.html>

# CAR SHARING

## AGENCIES INVOLVED IN THE PROJECT

- Peace Corps

## DESCRIPTION

This initiative, focused in Chicago, was planned to create a roadmap to vehicle sharing with other agencies, and explore commercial car sharing services through the GSA schedule. The pilot aimed to demonstrate that interagency partnerships can assist Peace Corps achieve Executive Order targets, contribute to a better use of financial resources, and positively impact agency goals.

## OUTCOMES

At this time, feasible opportunities among Federal agencies for car sharing in Chicago do not exist. However, results from the Peace Corps' car sharing pilot demonstrated a cost saving of approximately \$1,494 annually if Zipcar car services replaced one GSA-leased vehicle. During focus group interviews, participants agreed that convenience, flexibility, time efficiency, cost, and reliability were key factors that influenced their willingness to utilize car sharing services. These findings provide a baseline to further explore car sharing networks at other regional office locations.

## HIGHLIGHTS

- Convenience, flexibility, time efficiency, cost, and reliability were key factors that influenced staff willingness to utilize car sharing services during the pilot study.
- At the Peace Corps agency level, there continue to be ongoing efforts with additional small agency partners.
- GSA's new pilot program will build on lessons learned and obstacles identified for future research.

## LESSONS LEARNED

Through further evaluation, car sharing has the potential to save money, and by allowing Peace Corps recruiters to travel more, may provide an opportunity to recruit more future Peace Corps volunteers. Although car sharing does not (by itself) reduce greenhouse gas emissions, it demonstrated that car sharing could assist Peace Corps' mission and achieve Executive Order targets.

An initial roadmap framing an interagency car sharing program has been created, however, additional details for scheduling vehicles, staffing hours and fuel use reporting, needs to be outlined. Moving forward, Peace Corps will continue to explore interagency car sharing opportunities and in the meantime will provide commercial car sharing services for staff travel.

Car sharing technology has the potential to reduce administrative burdens by integrating automated tracking and billing, providing on-demand scheduling services through smartphones and web based dashboards, and providing new convenient locations to access cars.

## FUTURE OF THE PROJECT

GSA launched a pilot car sharing program (in Chicago) that continues to explore the Federal Government's capacity to share vehicles. The Car Sharing team will participate in this program and provide information gathered throughout this project.

## LEARN MORE

<http://www.epa.gov/fgc/spotlight/chicago-car-share.html>

# SEATTLE FEDERAL EXECUTIVE BOARD'S BUSINESS CASE FOR SUSTAINABILITY

## AGENCIES INVOLVED IN THE PROJECT

- Seattle Federal Executive Board (SFEB)
- General Services Administration (GSA)
- Environmental Protection Agency (EPA)
- SFEB Executive Leadership Council, representing 18 Agencies and the wider Federal community in western Washington

## DESCRIPTION

The SFEB built a business case for shared sustainability efforts across the Federal Government. The Board and supporting agencies: developed a story submittal form to make it easier for agencies contribute business cases; aggregated regional financial impact based on stories submitted, agency participation, consolidated savings and other data; determined best methods to publicize successes; and, encouraged non-participating Federal communities in the region to contribute. This effort demonstrated how FEBs can play an integral role in coordinating regionally located Federal entities that are working towards shared Executive Order goals.

## OUTCOMES

The SFEB published eight newsletters with tools and resources and conducted a national Webinar to showcase its findings. Through recommendations and shared stories, the SFEB contributed toward \$600K in energy savings at local GSA buildings; \$320K savings in trash removal costs and \$425K FY13 in travel costs at regional agencies.

## HIGHLIGHTS

- Development of method for story collection and monetized savings or efficiencies
- Focused campaigns based on areas of interest as determined by SFEB agency partners
- Development of processes, communication strategy, resources and tools for other FEBs to replicate SFEB Spotlight effort

## LESSONS LEARNED

The SFEB found that sustainability efforts across agencies can be challenging. Federal agencies are already participating in national efforts to reduce their carbon footprint and meet stringent energy reduction requirements. There was a sense of duplication of efforts. Although the SFEB leadership representatives wholly embraced the Spotlight, those individuals responsible for the energy saving, water reduction, green meeting, and other programs were already committed to previously established systems and metrics. The SFEB also found that aggregating regional monetary impact of sustainability efforts varies widely among agencies and the process of monetizing the impact of these programs is more challenging than anticipated. Agency metrics and information technology systems present barriers to comparing and measuring impacts in a systematic and consistent manner.

## FUTURE OF THE PROJECT

The SFEB Spotlight established a collaboration system that will be continued in a modified format. The SFEB plans to continue quarterly webinars and conference calls with agency leaders and sustainability program managers to continue sharing best practices, knowledge, tools, resources, and data. The SFEB will also continue to collect stories and determine ways to share them with a larger community. The SFEB will reach out to FEB's across the nation to share best practices, templates and lessons learned.

## LEARN MORE

<http://www.epa.gov/fgc/spotlight/seattle.html>

# FEDERAL AGGREGATED SOLAR PROCUREMENT PILOT

## AGENCIES INVOLVED IN THE PROJECT

- Environmental Protection Agency (EPA)
- General Services Administration (GSA)
- Forest Service
- Department of Energy - Federal Energy Management Program (FEMP)
- Lawrence Berkeley National Laboratory
- U.S. Coast Guard
- National Renewable Energy Laboratory

## DESCRIPTION

EPA Region 9 convened a team of Federal entities interested in purchasing renewable energy produced from solar panels on rooftops, ground-mount locations or carports at their facilities. GSA contracting experts are leading the procurement process and DOE's Federal Energy Management Program (FEMP) through Lawrence Berkeley National Laboratory is conducting the initial solar site surveys at the potential properties and assisting with the contracting.

## OUTCOMES

As of December 2013, the Federal Aggregated Solar Procurement Pilot project remains a work in progress.

## HIGHLIGHTS

- Once completed, this project anticipates being a model for Federal entities nationwide to procure renewable energy for their sites.
- FASPP anticipates identifying a time and cost-effective path for Federal agencies to achieve the increased renewable energy requirements directed by the December 5, 2013 Presidential Memorandum "[Federal Leadership on Energy Management](#)".

## LESSONS LEARNED

- When procurement is final, approach can be shared with Federal agencies across the country.

## FUTURE OF THE PROJECT

The team remains committed to advancing this project and successfully procuring cost-effective renewable energy on Federal property and for Federal use.

## LEARN MORE

<http://www.epa.gov/fgc/spotlight/solar.html>