

GovEnergy 2010

Greening the U.S. House of Representatives

Dealing with Change: Approaches that Work Session 7

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U.S. House of Representatives



August 17th, 2010

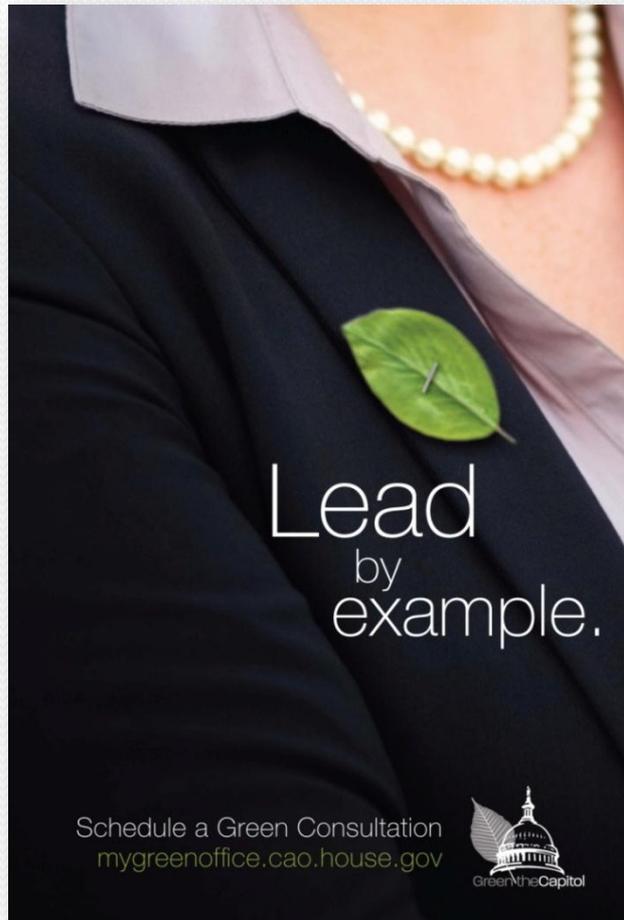


Agenda

- Introduction to the Capitol Complex and the U.S. House of Representatives
- Green the Capitol Goals and Objectives
- Change on Capitol Hill
- Exciting Projects – Completed, On-Going, and On the Horizon
- Ways to Get Connected



Green the Capitol Leadership by Example



“The House of Representatives must lead by example, and it is time for Congress to act on its own carbon footprint.”

-Speaker Nancy Pelosi



The Capitol Complex



House Campus Context



- 6,100,000 sq. ft in 4 House Office Buildings
- 7,000 Staff in DC
- 3,000 Staff across the US
- Preservation as a National Historic Monument

U.S. Capitol:	1793
Cannon:	1908
Longworth:	1933
Ford:	1939
Rayburn:	1965
CVC:	2008

Green the Capitol Goals

1. Aggressively reduce the **carbon footprint** of the House of Representatives
2. Reduce the energy consumption by **50%** over 10 years (5% per year starting in 2007)
3. Implement a **Zero Landfill** waste reduction program
4. Drive **sustainable management practices** into all aspects of House operations
5. Position the House as a **Model of Sustainability**

Goal 1 - Reduce Our Carbon Footprint



- Converted Capitol Power Plant from Coal to Natural Gas
- 100% Wind-Generated Electricity

75% Carbon Mitigation

Goal 2 - Pursue a 50% Reduction in Energy Use by 2017

- Possible through continued coordination with the **Architect of the Capitol**
- 2006 House Energy Consumption Baseline:
 - Roughly **809,089 MMBTUs**
- Energy conservation projects undertaken:
 - HVAC upgrades, Servers consolidation, 13,000 CFL bulbs installed, Night Lighting Policy, and more.
 - **Occupant and Employee behavior change is critical**

Energy Savings Performance Contract: Energy and Water Upgrades and Retrofits



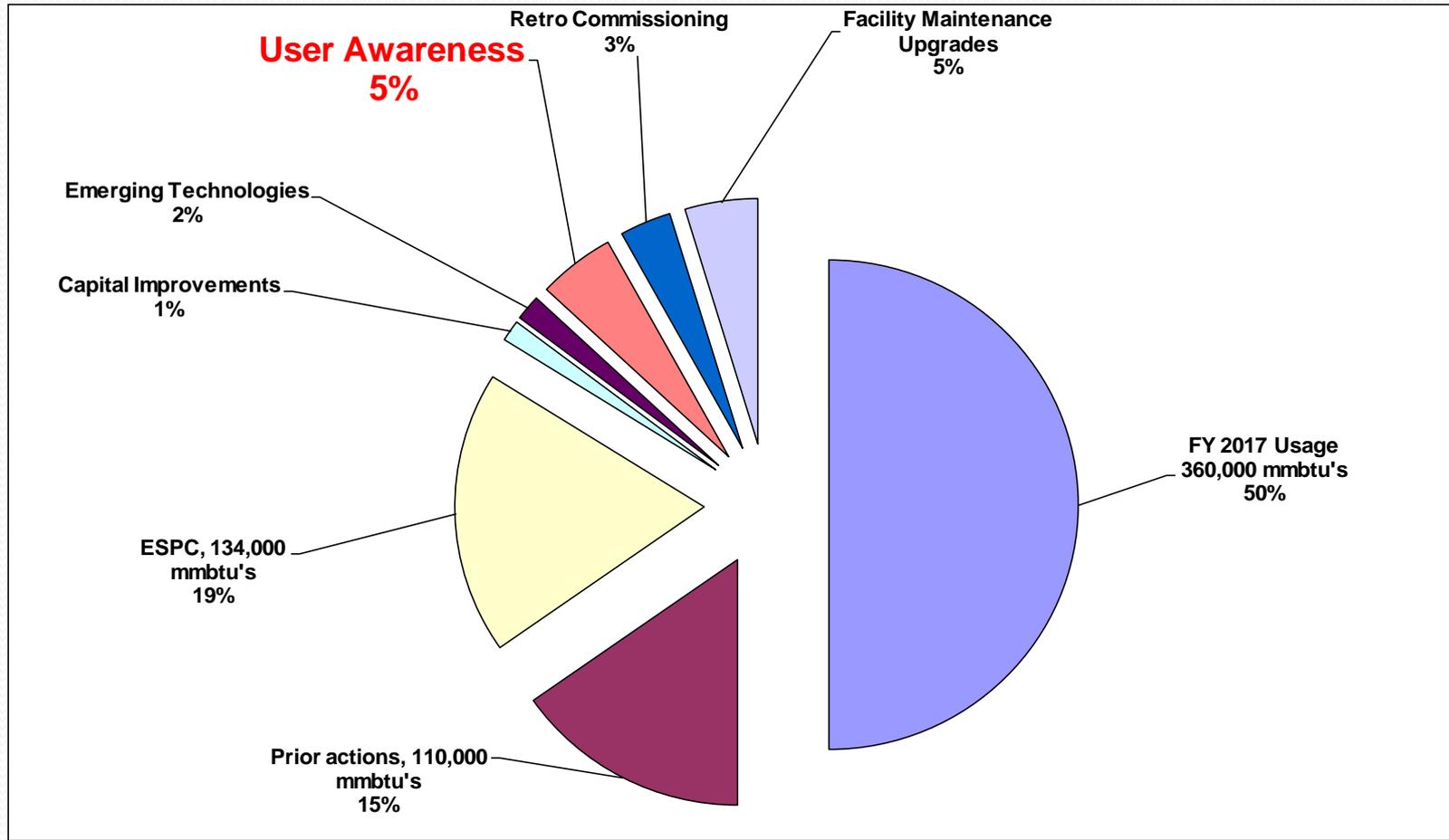
- **\$34 million** investment
 - Energy-efficient lighting upgrades
 - HVAC and controls upgrades
 - Water conservation & fixture upgrades
 - Water and Electricity Metering
-
- **Benefits:**
 - Annual water savings of **46 million gallons**
 - **\$3.2 million** annual utility cost savings
 - Equals removing **6,700 cars** from the road

Energy Efficiency in our Computer Center Operations



- With the AOC, revamped the House computer system to decrease energy usage **by 75%**
- Consolidated 150 servers with power savings of **\$910,000**
- Modernized data center for an additional 1 million kWh and **~\$118,000 savings**
- Results: Uptime Institute 2010 Green Enterprise IT Award

FY 2017 Energy Usage and Savings



Goal 3 – Waste Management CAO “Zero Landfill” Initiative

- Established a comprehensive CAO program involving waste reduction, reuse, recycling, and composting.
- Focused on reducing all waste streams and eliminating landfill waste.
- Adopted goal of eliminating 90% or greater of all waste produced by CAO staff, services, and systems.



Sustainable Food Services & Composting



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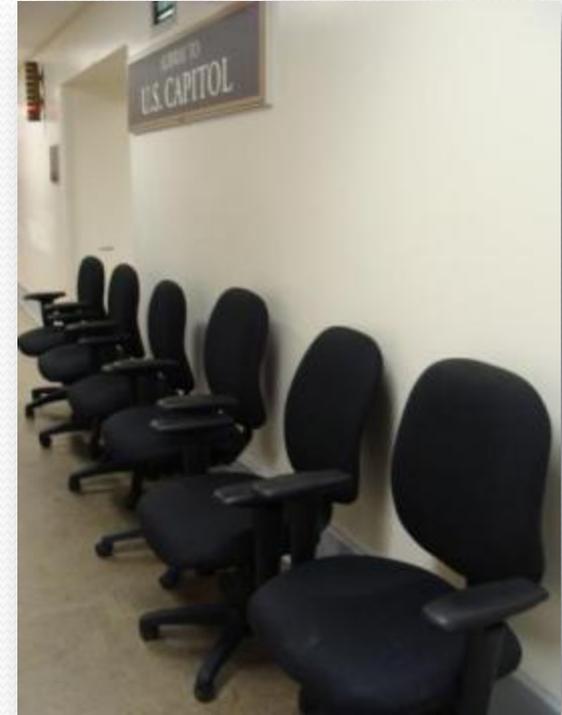


- In 2007, all Styrofoam[®] and plastic food service items replaced with fully compostable plates, cups, utensils, and containers.
- In 2008, over 400 tons of food and compostable waste was diverted from the landfill.

Employee Participation & Engagement



- Example: Reusing and green cleaning refrigerators and ergonomic chairs in Member offices
- Savings to the House since January 2009: **\$126,000**



Goal 4

Drive Sustainable Management Practices
& Energy Saving Technologies into all
aspects of House Operations and
Actions

- **Ultimately Behavior Change**

Green Procurement

- **CAO Green Procurement Policy (March 2010)**
 - CAO considers vendors' ability to minimize GHGs, consumption of energy, water, materials, and natural resources throughout the life cycle of the product.
 - Policy encourages CAO to consider vendors who apply sustainable practices in their own operations.
- **Implementation**
 - Empower CAO staff with market research tools and broad principles of buying green.
 - Provide feedback/metrics to CAO staff
 - Gauge agency improvement by tracking across product categories

The 112th Congressional Transition

- The **Office Supply Reuse Areas** for staff to drop off and pick up unused or reusable supplies.
- Cost savings for offices.
- Diverts waste from landfills.
- **111th Transition in 2008:** Resulted in the reuse of approximately **12,500 pounds of supplies.**



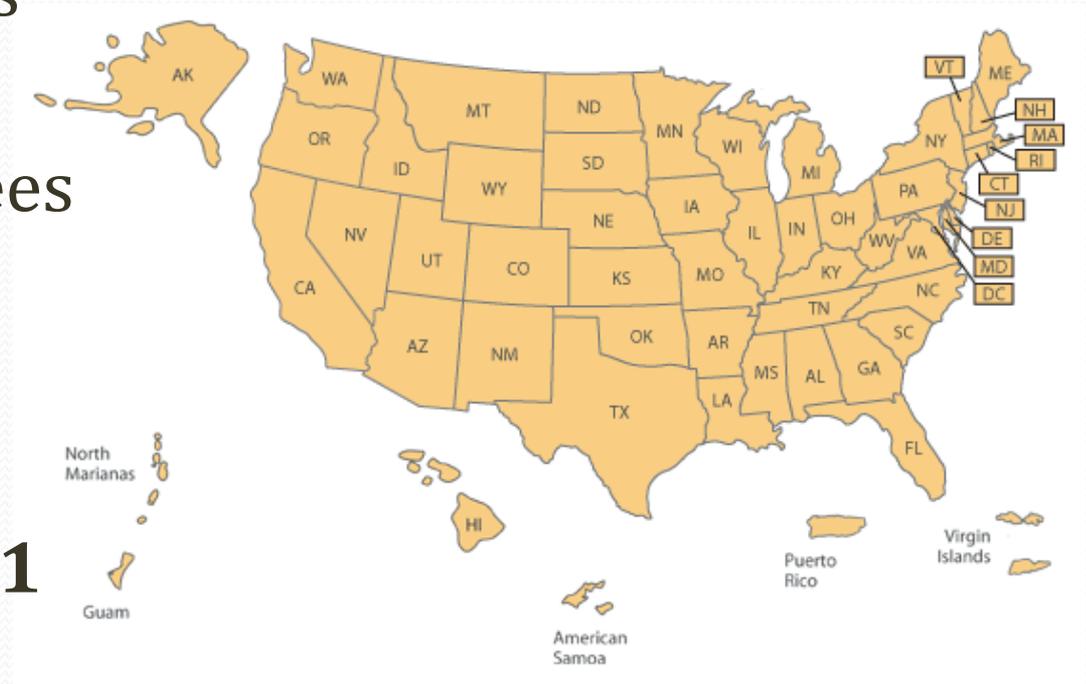
Member Office Greening Program



- 441 Member Offices
- 24 Committee Offices
- 9 Leadership Offices
- Tracks implementation of sustainable business practices and energy savings
- **Over 100 CAO employees trained**
- **Over 325 consultations completed to date**

District Office Greening Program

- 900+ District Offices across with country
- Over 3,000 employees
 - Direct consultations
 - Regional workshops
 - Teleconferencing
- **Over 200 of the 441 districts have participated to date**





U.S. House of Representatives

My Green Office



Welcome, Joshua Mantell | Office of: Joshua Mantell [Admin Access] Logout

STRETCH ACTIONS LIST

MY SCORECARD

THINGS TO DO

Explore the office scene to find actions...

Green Shades or Curtain Top Treatment [SHOW](#)

Light Switches (0) [SHOW](#)

Transportation Benefits [SHOW](#)

Occupancy Sensors (0) [SHOW](#)

...AND 23 STRETCH ACTIONS

THINGS IN PROGRESS

Make changes to actions in progress...

Paint [SHOW](#)

...AND 0 STRETCH ACTIONS

THINGS WE'VE DONE

Fine-tune actions that have been taken...

Carpet [SHOW](#)

Furniture [SHOW](#)

Refrigerators (1) [SHOW](#)

Designate Green Office Representative [SHOW](#)

Recycle Paper (1) [SHOW](#)



Username: Password:



THINGS TO DO

Explore the office scene to find actions...

- Light Switches
- Smart Power Strips
- Composting
- Computer Power Management
- Double-Sided Printing
- Recycle Paper
- Occupancy Sensors
- CFL Bulbs
- EPEAT Desktop Computers
- ENERGY STAR Printers and Copiers
- Recycle Bottles, Cans and Plastics
- Designate Green Office Representative
- Cancel Excess Subscriptions
- Recycled-Content Paper
- Transportation Benefits
- Paint
- Carpet
- Furniture
- Refrigerators
- Green Shades or Curtain Top Treatment

...AND **30** STRETCH ACTIONS

20 actions to go!

...AND **30** STRETCH ACTIONS



ALSO CHECK OUT...
Member Off



NOW VISITING...
Staff Office

If the My Green Office program was fully implemented, every year we could save...



Over 5.5 million
Kilowatt hours of
electricity saved



Over 1.8 million
Pounds of landfill
waste saved



Over 12.1 million
Pounds of
carbon saved

Recycle Paper

About How To Take Action Why You Should

Keep a separate paper recycling bin next to the trash bin at every desk.

If each staff person recycles 38 sheets of paper per day, that will equate to over 110 lbs per person per year. Each pound of paper recycled (approximately 89 sheets) reduces one pound of waste and prevents 4.41 lbs of CO2 emissions.



See Stretch Actions

Enter a staff number for this action...

1



Action Done!

RESET

UPDATE QUANTITY



THINGS TO DO



Explore the office scene to find actions...

- Green Shades or Curtain Top Treatment [SHOW](#)
- Light Switches (0) [SHOW](#)
- Transportation Benefits [SHOW](#)
- Occupancy Sensors (0) [SHOW](#)

...AND 23 STRETCH ACTIONS

THINGS IN PROGRESS



Make changes to actions in progress...

- Paint [SHOW](#)

...AND 0 STRETCH ACTIONS

THINGS WE'VE DONE



Fine-tune actions that have been taken...

- Carpet [SHOW](#)
- Furniture [SHOW](#)
- Refrigerators (1) [SHOW](#)
- Designate Green Office Representative [SHOW](#)
- Recycle Paper (1) [SHOW](#)
- Recycle Bottles, Cans and Plastics (1) [SHOW](#)
- Composting (1) [SHOW](#)
- Cancel Excess Subscriptions (5) [SHOW](#)
- Recycled-Content Paper (1) [SHOW](#)
- Computer Device Management (4) [SHOW](#)



NOW VISITING...
Member Office



ALSO CHECK OUT...
Staff Office



Welcome, Asher Burns-Burg | Office of : Asher Burns-Burg

Logout

BACK TO VIRTUAL OFFICE

MY SCORECARD

About

Help

Scorecard

Actions & Assumptions

Contact Us



OUR OFFICE IMPACT: TOTALS AND TARGETS...

A new level is reached when you save the target amount of electricity, landfill waste, carbon or money.

How much electricity have we saved?

4640.00 kWh

Level Five Savings: 4640.00 kWh

... of 5,000 kWh



How much landfill waste have we saved?

416.70 Pounds

Level One Savings: 416.70 Pounds

... of 1,000 Pounds



How much carbon (CO2E) have we reduced?

1896.21 Pounds

Level Two Savings: 1896.21 Pounds

... of 2,000 Pounds



How much money have we saved?

232.77 Dollars

Level One Savings: 232.77 Dollars

... of 1,000 Dollars



THINGS WE'VE DONE

Totals for actions that have been taken...

Light Switches - 290 kWh

Smart Power Strips - 436 kWh

Double-Sided Printing - 208.35 lbs of Waste

Recycle Paper - 208.35 lbs of Waste

CFL Bulbs - 38.12 kWh

STRETCH ACTIONS

Totals for extra actions you've taken...

Scorecard Legend

1 Level = 1000 kWh of Electricity

1 Level = 1000 Pounds of Landfill Waste

1 Level = 1000 Pounds of Carbon (CO2E)

1 Level = 1000 Dollars

Note: Scorecard information is for your office use only and is not publicly viewable



SHARE YOUR RESULTS

Core 15 Greening Actions

1. Designate a Green Office Representative
2. Recycle Paper
3. Recycle Bottles, Cans, Plastics
4. Compost
5. Recycled Content Paper
6. Reduce Publication Subscriptions
7. Light Switches
8. Transportation Benefits
9. Computer Power Management
10. Smart Power Strips
11. Double-sided printing
12. EPEAT Computer Equipment
13. ENERGY STAR appliances
14. Occupancy Sensors
15. Compact Fluorescent Bulbs



Stretch Greening Actions

- 1. ENERGY SAVING ACTIONS**
- 2. GREEN PROCUREMENT ACTIONS**
- 3. OUTREACH ACTIONS**
- 4. TRANSPORTATION ACTIONS**
- 5. WASTE REDUCING ACTIONS**
- 6. WATER CONSERVING ACTIONS**

Examples:

- Adjust your Thermostat +/- 2 degrees
- Check your heating and cooling vents for obstructions
- House Hosting Services
- EPEAT computers
- ENERGY STAR Televisions, water coolers, and DVD players

If all House offices participate in our greening program, the resulting annual savings are as follows:



Reduction of electricity consumption by nearly 10 percent which is equivalent to the annual consumption of almost 500 homes.



Diversion of almost 1,000 tons of landfill waste, or the amount of waste contained in 100 typical garbage trucks.



Nearly 1 million dollars of taxpayer money saved from reduced electricity and procurement costs.



My Green Office Demo Site

- Public Demonstration Site:

<http://stage.greenthecapitol.icfi.com>

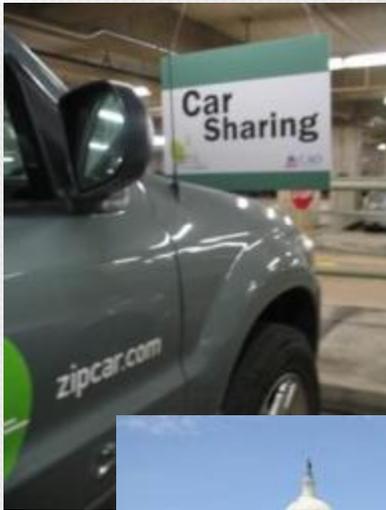
Username: Demouser1

Password: Demouser1#

Goal 5 – Model of Sustainability

- High Performance Building Standards for CAO office renovations
 - The Cannon Renovation
- Sustainable design standards (LEED +)
 - House Committee on Science and Technology
 - Capitol Visitors Center
 - FOB 8
- Energy Demonstration Projects
- Green Roofs

Changing the Approach to Transportation and Commuting



- “Smart Benefits” Program
- Zipcar Program
- First all-electric vehicle
- Hybrid truck fleet
- EV Charging Stations

Education: The Green Expo

- Highlighted Greening Efforts within the House and the Community
- Work-Life Green
- Green Products, Produce, Services, and Behavior
- Green Games and Giveaways
- Over 2000 attendants in April, 2010



Change within Hierarchical Institutions

The nature of this conversation must advance beyond a dynamic of territorialism and component optimization toward a dynamic of deep collaboration and engaged interdisciplinary thinking. To this end, the people must be effectively incentivized and facilitated from beginning to end to strive for shared success and to generate team-based problem definition and solution development.

- Leith Sharp

Higher education: the quest for the sustainable campus

Sustainability: Science, Practice, and Policy

Spring/Summer 2009, Volume 5, Issue 1



Looking Ahead

- Relighting the Dome
 - New system will reduce energy by 75%
- Green Procurement Training
- 112th Congressional Transition
- Future Transportation Technologies
- Phase II of My Green Office
- Capitol Power Plant Cogeneration
- Water Conservation and Irrigation
- Nitrogen Footprint



Get Connected

The screenshot shows the homepage of the Green the Capitol website. At the top, there is a 'Contact Us' button with social media icons for Facebook, YouTube, and Twitter. Below this is a navigation bar with links for HOME, OUR INITIATIVES, ABOUT US, NEWS & EVENTS, and RESOURCES & MULTIMEDIA. The main content area features a large image of the U.S. Capitol dome with the text 'Our Story' and a description of the program's impact. A sidebar on the right highlights 'GREENING PROJECTS AT THE U.S. CAPITOL' with a 'TAKE THE TOUR' button. Below the main content, there is a 'Latest Tweets' section and a 'OUR STORY' section featuring a photo of a woman holding a recycling bin and a statistic: '1,472 trees saved in 2009 through electronic faxing instead of conventional faxing with non-recycled paper.' The footer includes a 'FEATURED NEWS & EVENTS' section with a link to 'Earth Day at the Capitol', a 'FEATURED VIDEO' section with a link to 'Greening the Capitol - Overview', and a 'FEATURED REPORT' section with a link to 'Annual Activities Status Report'.

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