



• August 15-18, 2010 • Dallas, Texas •
• Dallas Convention Center •



Measuring and Reporting Sustainability
Joni Teter, GSA
Office of Federal High Performance
Green Buildings

Talking Points

- Greening the Government: A new paradigm
- EO 13514
 - Strategic Sustainability Performance Plans
 - What must be reported
 - The framework: EMS
- OMB Scorecards
& too many requirements
 - Reporting simplification?

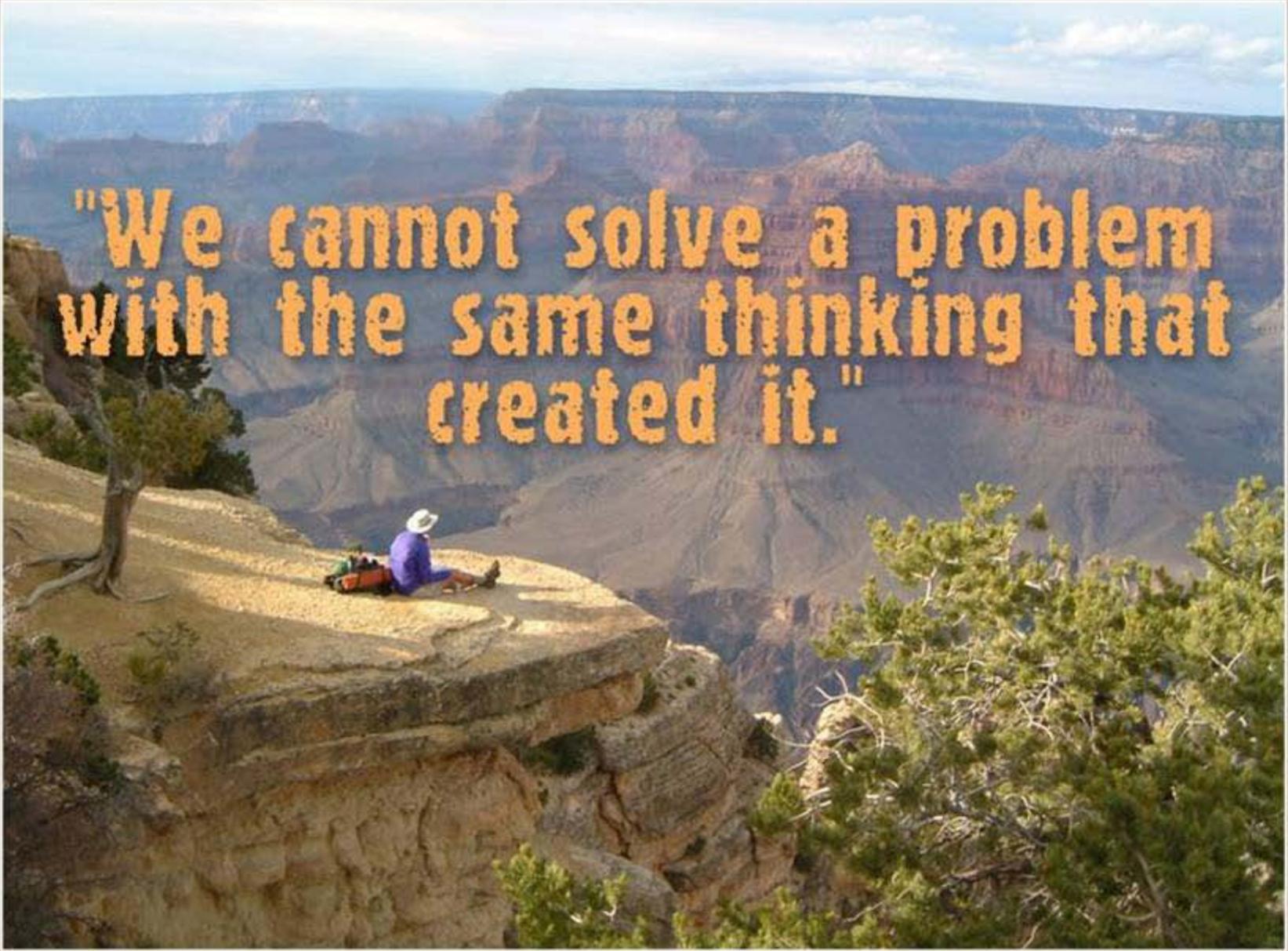


E.O. 13514 §2 & The reporting world as we know it

- Reduce waste, increase recycling
- Reduce toxics
- Reduce bldg. energy use, increase bldg. renewables
- Reduce petroleum fuel use, increase fuel renewables

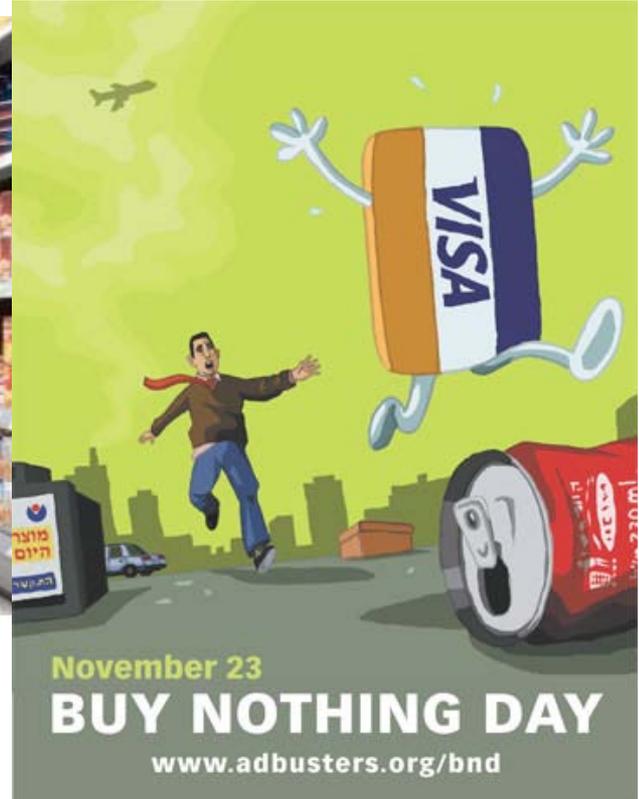
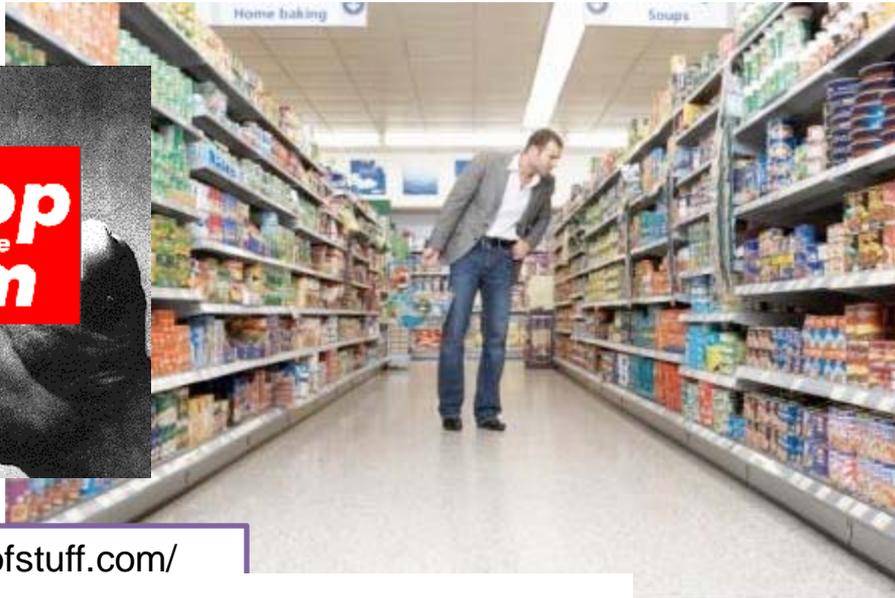


- Buy EPP
- Conserve water
- Manage stormwater
- Electronic stewardship
- *Reduce ghg emissions*
- *Meet HPSB Guidelines*

A person wearing a purple shirt and a white hat is sitting on a rocky ledge, looking out over the Grand Canyon. The canyon is vast and deep, with layered rock formations and green trees in the foreground. The sky is blue with some clouds.

**"We cannot solve a problem
with the same thinking that
created it."**

The Consumer Society

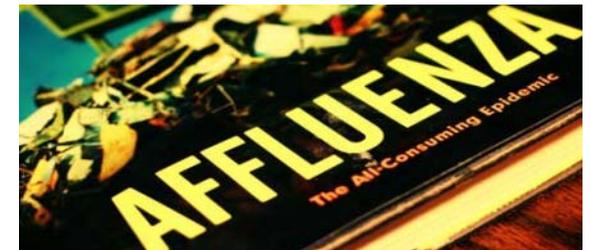


<http://www.storyofstuff.com/>

THE STORY OF

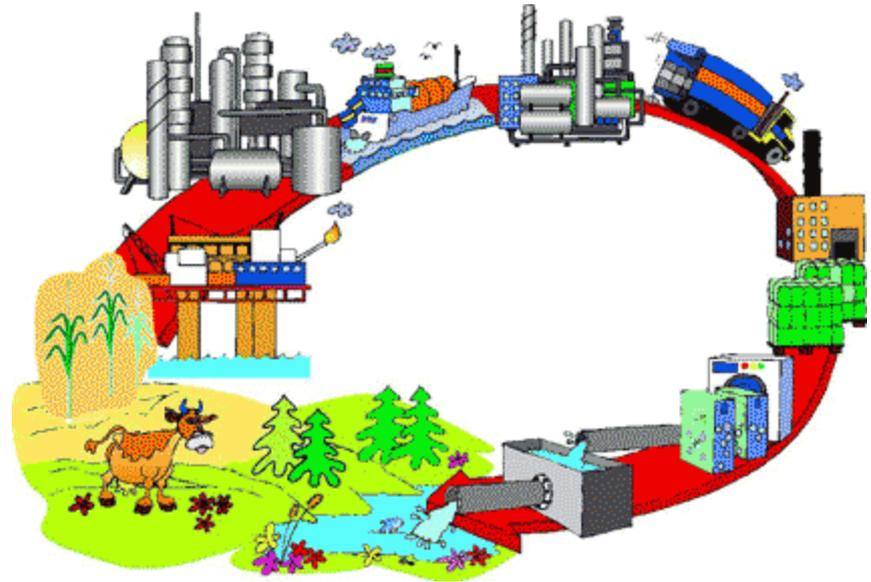


WITH ANNIE LEONARD



EO 13514: A New Paradigm

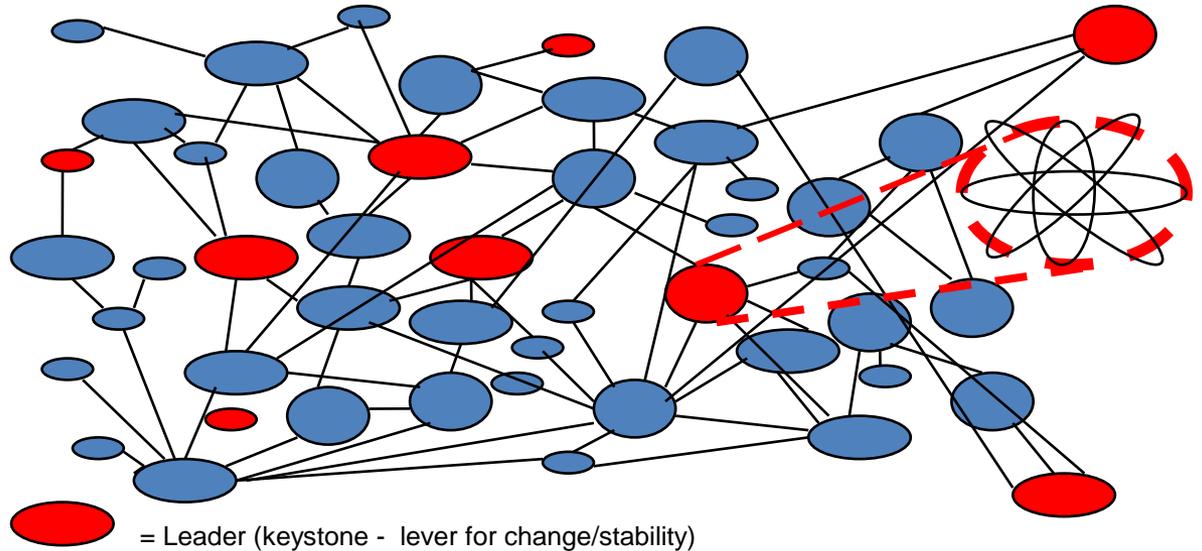
- Federal government as *catalyst* for “clean energy economy”



- ***Systems-based*** approach to greening

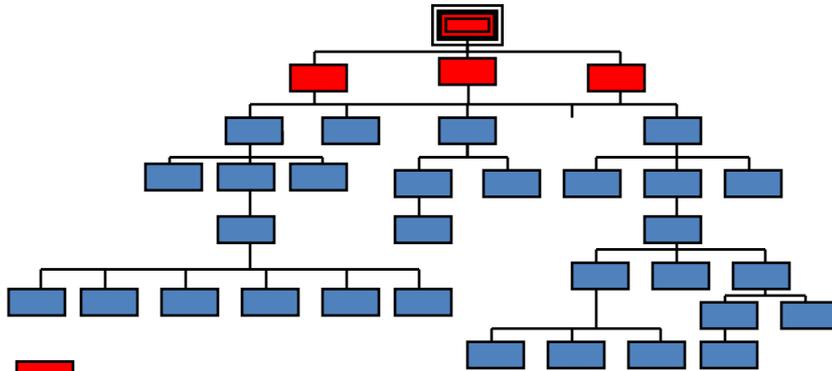
Systems thinking

The Way Living Systems **REALLY** Organize Themselves



 = Leader (keystone - lever for change/stability)

The Way We'd Like to Think Systems Organize Themselves



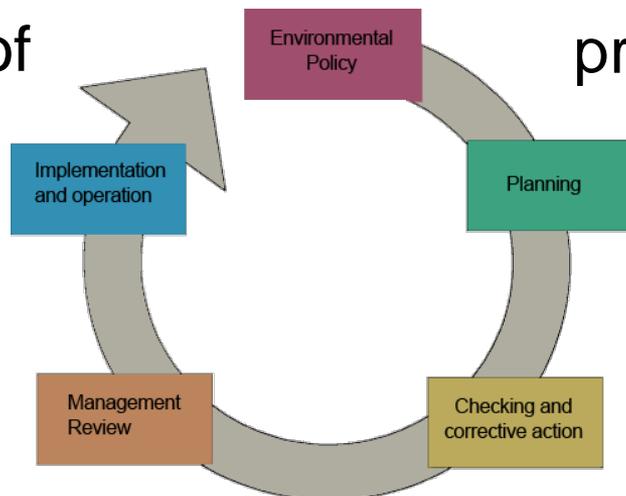
 = Leader

- Christopher Juniper

E.O. 13514 §7

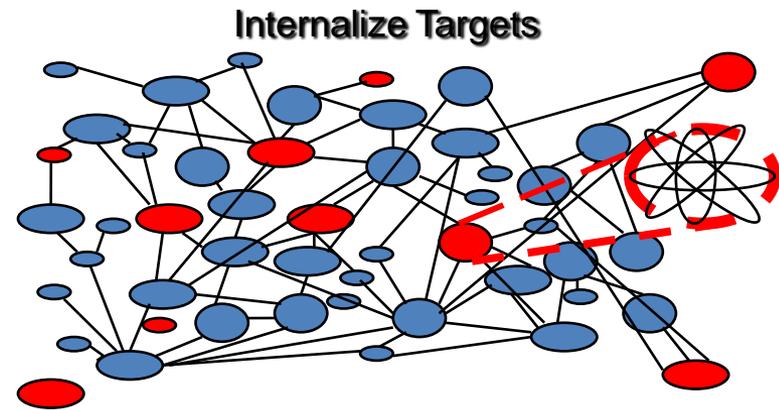
Strategic Sustainability Performance Plans (S²P²)

- Prioritize agency actions based on *lifecycle return on investment*
- Consider envtl, economic & social benefits & costs in lifecycle review of projects/activities
- **§2 targets integrated:**
 - Mission
 - Budget
 - Existing planning procedures



S²P² Integration

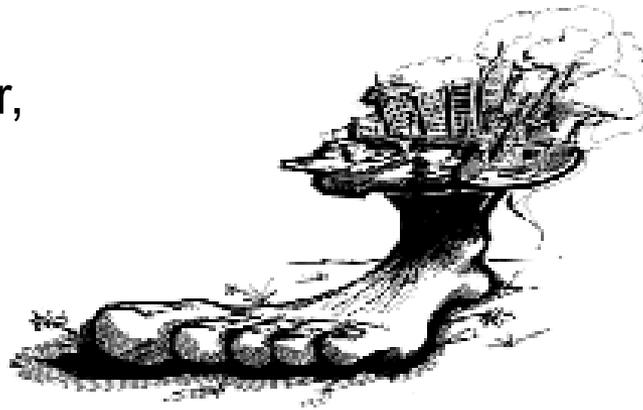
- Agency Senior Sustainability Officer (SSO)
- Coordinate planning with:
 - General Counsel
 - CIO
 - CAO
 - Senior Real Property Officer



- GSA: Eliminate the distinction between 'sustainability' & 'operations'

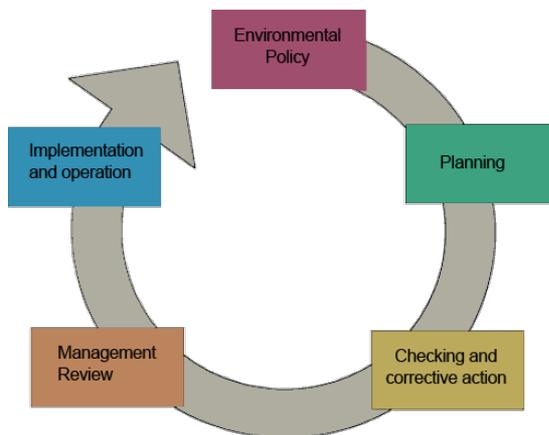
GSA's S²P² Goal: “Zero Footprint”

- Eliminate GSA's impact on the natural environment
- Use government-wide influence to reduce the Fed Sector's environmental impact
- Minimize and offset consumption of energy, water, & resources; eliminate all waste & pollution in all GSA operations and activities
- Use GSA's purchasing power to drive the market
- Exceed all Federal requirements & use GSA's expertise to help other Federal agencies exceed



GSA S²P²: Integration

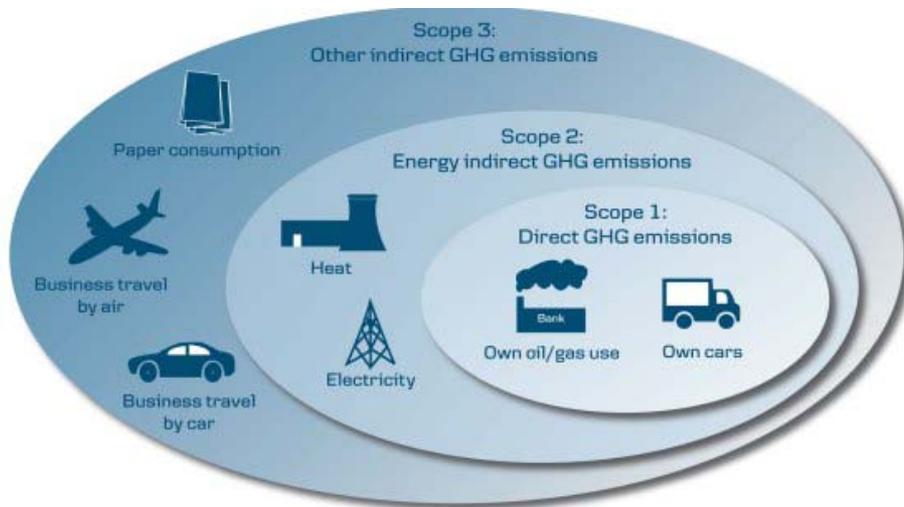
- **Accountability**
 - FY11, executive performance agreements & employee performance plans include measures of progress against sustainability goals
- **Governance**
 - Executive Steering Committee from GSA's major policy & operational organizations
- **Budget**
 - Incorporate S2P2 goals in preparation, submission & execution of the budget



GSA S²P²

GHG Emissions: Targets

- Reduce annual GHG emissions 30 percent by 2020



- Increase investment in energy & water conservation projects, deploy advanced meters
- All new Federal buildings: 30% below ASHRAE 90.1, meet LEED NC Gold & Energy Star
- New education & awareness initiatives to motivate tenants, GSA contractors, & GSA employees to make behavioral changes

GSA S²P²

GHG Emissions: Resources

Scope 1 & 2 GHG Emissions Reduction Targets and Resources – Federal Buildings
(Dollars in Millions)

SCOPE 1 & 2 GHG TARGET	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	...	FY 20
EISA Mandated Energy Reduction Goals (BTU/SF reduced from FY 2003 base year)	15%	18%	21%	24%	27%	30%	hold	...	hold
GSA Planned Energy Intensity Reduction (BTU/SF reduced from FY 2003 base year)	15%	18%	21%	24%	27%	30%	31.5%	...	37.5%
Mandated Renewable Electricity Goals (Percent of electricity from renewable sources)	5%	5%	5%	7.5%	hold	hold	hold	hold	hold
GSA Planned Renewable Electricity Use (Percent of electricity from renewable sources)	10%	12%	14%	16%	18%	20%	22%	...	30%
Scope 1 & 2 Reduction Target (Reduced from FY 2008 base year)	7%	10%	13%	17%	20%	21.3%	22.8%	...	28.7%
Leveraged Investment (funded through annually recurring existing budget items)	\$ 2M	\$ 20M	\$ 20M	\$ 20M	hold	...	...	...	hold
Incremental Investment (funded through new program budget requests specific to this EO)	base	\$ 20M	\$ 20M	\$ 30M	hold	...	...	...	hold
Alternative Investment (funded through ESPC, UESC, EUL, PPA, rebates, or other funding assistance)	base	\$ 5M	\$ 10M	\$ 15M	hold	...	...	...	hold

Facility Level Tracking: EPA EMP Example

Environmental Management Program EPA Region 8		
1. PROGRAM NAME:	Energy Management	
2. Significant Environmental Aspect: Consumption of Energy	3. Document Control Code:	Energy Management
	4. Date:	December 4, 2008
	5. Program Lead:	William Daniels
6. Revision History (This table shows significant changes to this record over time, with the most recent change shown in the top row.)		
Energy Management, Original Issue		Effective Date: 12/04/08
7. Objectives and Targets:		
Objectives:	Targets:	Progress Indicators (PIs):
Reduce resource consumption and the Region's carbon footprint through energy conservation practices.	Maintain or improve Energy Star certification level at the Regional Office (current level 96 Percentile)	Energy Star Certification rating
	Reduce total consumption of energy from previous year at the Regional Laboratory	Total consumption
	Maintain at least 100% Green Power for RO and Laboratory	% Green Power
	Report energy consumption to SFPB; quarterly	Reports completed

Facility Level Tracking: EPA EMP Example, Cont.

13. Structure, Authorities, Responsibilities:

Target	Tasks to accomplish target	Task date	Person(s) responsible for task (title or name):	Resources/funding available:
Maintain or improve Energy Star certification level at the Regional Office (current level 96 Percentile)	Complete the submetering and monitoring program for energy use at the RO to identify opportunities to increase energy efficiency and conservation.		Joni Teter	Regional Operations Budget, SHEMD and B&F Budgets
Reduce total consumption of energy from previous year at the Regional Laboratory	Complete a submetering and monitoring program for energy use at the Regional Lab to identify opportunities to increase energy efficiency and conservation.		Craig Greenwell EPA Facility Manager	Regional Operations Budget, SHEMD and B&F Budgets
	Input energy savings B&F projects into SLATE and track progress	Annually, May	Craig Greenwell EPA Facility Manager	B&F Budget
Maintain at least 100% Green Power for RO and Laboratory	Continue to work with SFPB to acquire Green Power credits for RO and Lab	Ongoing	Craig Greenwell EPA Facility Manager	SFPB Budget

Reporting: OMB Scorecards

	CURRENT STATUS (As of January 1, 2010)	PROGRESS	COMMENTS
<p>ENERGY MANAGEMENT Sustainability Officer: Lead DOE Analyst: Richard Kidd Lead OMB Analyst: Cyndi Vallina</p>	<p>Color </p> <ul style="list-style-type: none"> Reduction in energy intensity in goal-subject facilities compared with 2003: <ul style="list-style-type: none"> ___ at least 12 percent and on track for 30 percent in 2015 (G) ___ at least 9 percent (Y) Use of renewable energy as a percent of facility electricity use: <ul style="list-style-type: none"> ___ 1.5 percent from <u>new</u> sources (thermal, mechanical, or electric) AND total of 3 percent from renewable <u>electricity</u> sources (G) ___ 3 percent from any renewable thermal, mechanical or electric renewable energy source (Y) ___ Less than 3 percent from any renewable energy sources (R) Individually meter 100 percent of appropriate facilities for electricity by 2012; and for natural gas and steam by 2016: 	<p>Color </p> <p><u>Actions taken since January 1, 2010:</u></p> <ul style="list-style-type: none"> Provide a brief summary of actions taken. List key deliverables submitted and commitments fulfilled from planned action items on Jan 2010 scorecard. <p><u>Planned actions for next six months:</u></p> <ul style="list-style-type: none"> Outline key actions to be taken between June 30, and Dec. 31, 2010. Submit to OMB & CEQ no later than June 4, 2010 agency GHG emission reduction goal for Scope 3 & Strategic Sustainability Performance Plan required by EO 13514 Sec 2(b) and Sec 8. 	<p>Assess general progress against goals of EPACT 2005, EO 13423, EISA 2007, & EO 13514 (e.g., on track, aggressive, slippage, etc); highlight if change in momentum.</p> <ul style="list-style-type: none"> Use additional bullets to explain or enhance discussion in first two columns (e.g., legislative barriers, or other risks to implementation, management changes at agency, etc.). Report on agency's activities related to ARRA energy efficiency projects and ESPC/UESC project investment planned to be awarded in next six months. Use of these tools is encouraged for

Reporting challenges: Scope of What's Required

10. Legal and Other Requirements (applicable to aspects/activities):

Note: The use and management of fuels to support facility energy requirements may impose additional regulatory requirements (e.g., SPCC Plans) under the Clean Water Act and Resource Conservation and Recover Act (Subtitle I). Specifically, these include the SPCC regulations at 40 CFR Part 112 and the UST regulation at 40 CFR Part 280.

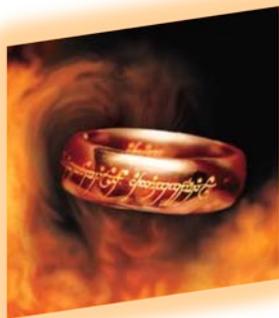
Legal Requirements

- Laws
 - Clean Air Act (CAA) of 1955, as amended, 69 Stat. 485 (42 U.S.C. 7401-7642)
 - Energy Policy Act (EPAAct) of 2005, PL 109-58, (H.R. 6)
 - Title I – Energy Efficiency
 - Subtitle A – Federal Programs
 - Subtitle C – Energy Efficiency
 - Title II – Renewable Energy
 - Subtitle A – General Provisions
 - Title IX – Research and Development
 - Subtitle A – Energy Efficiency
 - Subtitle C – Renewable Energy
 - Energy and Security Act (EISA), 2007, PL 110-140, (H.R. 6),
 - Title III – Energy Savings Through Improved Standards for Appliance and Lighting
 - Appliance Energy Efficiency
 - Lighting Energy Efficiency
 - Title IV – Energy savings in Buildings and Industry
 - High – Performance Commercial Buildings
 - High – Performance Federal Buildings
 - Title V – Energy Savings in Government and Public Institutions
 - Energy Savings Performance Contracting
 - Energy Efficiency in Federal Agencies
 - Pollution Prevention Act (PPA) (1990) US Code Title 42 Chapter 133 13101(b)
 - Farm Security and Rural Investment Act of 2002
 - Resource Conservation and Recovery Act (RCRA)
- Regulations
 - Federal Acquisition Regulations (FAR),
 - Subchapter B, Competition and Acquisition Planning, Part 12 “Acquisition of Commercial Items”
 - Subchapter D, Socioeconomic Programs, Part 23 “Environment, Energy and Water Efficiency, Renewable Energy Technologies, Occupational Safety, and Drug-Free Workplace;”
 - Subchapter H, Clauses and Forms, Part 52 “Solicitation Provisions and Contract Clauses”
 - Environmental Protection Agency (EPA)
 - Part 60 “Standards of Performance for New Stationary Sources”
 - Part 61 “National Emission Standards for Hazardous Air Pollutants”
 - Part 63 “National Emission Standards for Hazardous Air Pollutants for Source Categories”

• ID all Fed requirements +
• HPSB Principles +
• LEED EB O&M =
• 17 page Excel table

E.O. 13514 §5 (d)

- **OFEE Additional Duties:** Prepare streamlined reporting metrics



- ID all Fed requirements +
- HPSB Principles +
- LEED EB O&M =
- 17 page Excel table

Thank You!

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