



EXECUTIVE ORDER 13514: Implementation Status Update

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Office of Environmental Policy & Assistance (HS-22)

Clean Air Work Group February 25, 2010



Executive Order 13514 (October 5, 2009)





"To establish an integrated strategy towards sustainability in the Federal Government and make reduction of greenhouse gas (GHG) emissions a priority for agencies."



E.O. 13514: Four Key Aspects



- GHG emission reduction is now an overarching, integrating performance metric for all Federal agencies;
- 2. Agencies must use a deliberative planning process, including a Strategic Sustainability Performance (SSP) Plan (due June 2, 2010);
- 3. E.O. goals are to be linked to budget allocations and scored by OMB; and
- 4. E.O. 13423, Strengthening Federal Environmental, Energy, and Transportation Management (January 29, 2007) remains in effect.



Senior Sustainability Officer: Deputy Secretary



Secretary Chu has named Deputy Secretary Daniel Poneman as DOE's Senior Sustainability Officer (SSO)

 Staffing support to come from Ingrid Kolb, Director of Management (MA-1)

SSO Responsibilities include:

- Prepare the DOE-wide GHG inventory
- Develop DOE targets for GHG emissions reductions
- Prepare and implement the SSP Plan, in coordination with appropriate offices and organizations
- Monitor DOE's performance and progress in implementing the Plan and report to CEQ and OMB.

E.O. 13514 Governance Model

Senior Sustainability Steering Committee Chair: Deputy Secretary Members: Under Secretaries, CFO, GC, MA, HSS, EERE Align DOE business practices—budget, acquisition, metrics and reporting—with EO goals **Sustainability Integration Team** Power strategic^T Marketing Co- Chairs: MA-1 & Members: Reps from S-2, S-3, CFO, GC, NA, SC, EM, FE, NLDC, tactical Administration EFCOG, OPAM, CIO, FEMP, OECM, & HSS LLNL Site Manager Manage preparation of Strategic Sustainability Performance Plan Fossil Fuel, High **Procurement & Electronics & Environmental** Energy, & **Performance Data Centers** Acquisition **Stewardship** Renewables **Buildings**

Co-chairs: FEMP/DOE Site

Cap & Trade

Co-chairs: CIO/DOE Site

Co-chairs: SC/DOE Site

Co-chairs: OPAM/DOE Site

Behavior Change

Business Planning

Co-chairs: OECM/DOE Site

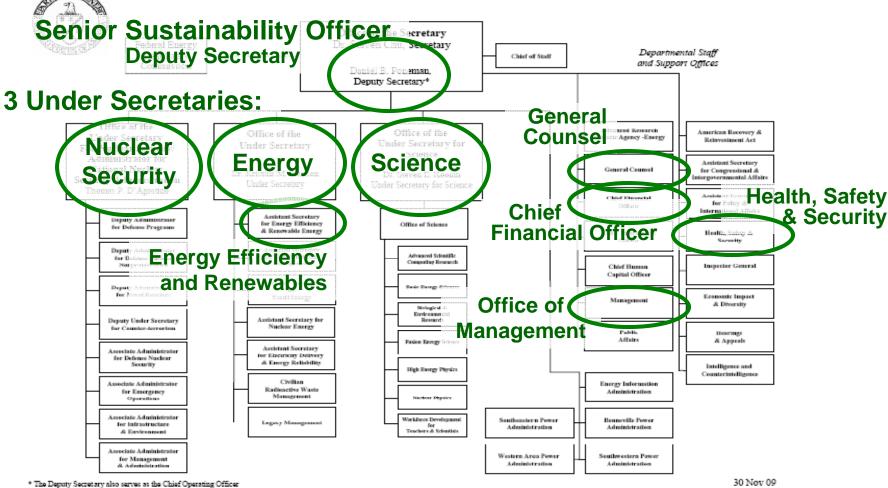
Co-chairs: FEMP/DOE Site Co-chairs: CFO/DOE Site

High Energy Mission Specific Facility

Co-chairs: HSS/DOE Site

Co-chairs: SC/DOE Site

DEPARTMENT OF ENERGY



DOE's Senior Sustainability Steering Committee

Align DOE business practices – budget, acquisition, metrics and reporting – with EO goals

DEPARTMENT OF ENERGY Office of the Secretary Departmental Staff CoChair: Director, Office of Management and Support Offices **CoChair: Director, Livermore Site Office** Office of the Advanced Research American Recovery & Office of the Office of the Inder Secretary Reinvestment Act r Secretary for nder Secretary uclear Security/ SC GC ninistrator for Ambiant Secretary ional Nuclear for Congressional & Cristina M. Johnson ren E. Koonin Intergovernmental Affaire tv Administration Under Secretary retary for Science omas P. D'Agostino Federal Energy **CFO** Deputy Administrator Mgt Program **HSS** for Defense Programs CIO Deputy Administrator **Environmental** Advanced Scientific Computing Research for Defense Nuclear Nonproliferation Management Deputy Administrator for Naval Reactors Economic Impact & Diversity **Engineering** Fossil Deputy Under Secretary and Construction Mgt for Counter-terrorism Energy **Procurement** and Acquisitions Mgt Associate Administrator for Electricity Delivery for Defense Nuclear & Energy Reliability Security High Energy Physics Counterintelligence Energy Information Associate Administrator Radioactive Waste Administration for Emergency Management Nuclear Physics Operations Associate Administrate Warkforce Develops Lerney Management for Infrastructure **Power Marketing** Teachers & Scientists & Environment **Administrations National Lab Directors Council** Administration 30 Nov 09 **Energy Facilities Contractors Group**

DOE's Sustainability Integration Team

Manage preparation of Strategic Sustainability Performance Plan



Sustainability Management Principles



DOE's Senior Sustainability Steering Committee has adopted the following four principles:

- ✓ Drive personal and organizational behavior change across the complex as a fundamental strategy to reduce energy use at minimal cost
- ✓ Employ a corporate-wide portfolio approach to share energy and greenhouse gas reduction responsibilities
- ✓ Safeguard mission, yet revisit and challenge previously excluded facilities and processes. Everything is on the table
- ✓ Showcase R&D demonstration projects at DOE Sites
 (Highlight technological leadership while meeting goals of E.O.)



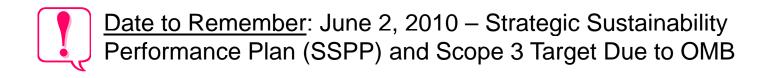
Strategic Sustainability Performance Plan



- Establishes DOE actions to achieve the goals and targets of the E.O., including the GHG reduction targets;
- Is to be integrated into DOE's strategic planning and budget process;
- Identifies DOE activities, policies, plans, procedures and practices that are relevant to E.O. implementation;
- Identifies specific DOE goals, milestones, and quantifiable metrics for E.O. implementation.;
- Considers environmental measures as well as economic and social benefits and costs in evaluating projects and activities based on lifecycle return on investment;
- Includes annual reviews and continuous improvement.

Key Milestones Accomplished

- January 5 Formal Designation of Senior Sustainability Officer (SSO)
- January 6 Established Agency-wide Target for Scope 1 and 2 Greenhouse Gases (28% reduction)
- January 15 Implemented Governance Model to Ensure Headquarters and Field Partnership & Prepared Master Schedule of Critical Milestones
- January 21 Stood-up Sustainability Integration Team (SIT)



Critical Milestones Ahead

Task Description	Target		
Complete technical analysis of Executable Plans	2/1/2010		
Identify missing critical data and issue data-call	2/15/2010		
Complete financial analysis and rank projects identified in site Executable Plans			
Provide sustainability cost data for FY12-16 budget to the Programs			
Complete analysis of DOE's ability to meet GHG and non-GHG targets			
Verify sustainability funding incorporated into Program Budgets for FY12-16			
Select and approve Scope 3 Greenhouse Gas (GHG) reduction target			
Distribute draft SSPP for internal DOE review			
Conduct Senior Sustainability Steering Committee (SSSC) meeting to review and comment on the SSPP – review impact to budget			
Submit Scope 3 GHG reduction target to OMB/CEQ	6/2/2010		
Submit SSPP in concert with FY12 budget submission to OMB/CEQ	6/2/2010		
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Supporting Information

E.O. 13514 – Requirements & DOE Status			
	Requirement	Status	
Scope 1&2 Greenhouse Gas (GHG) emission 28% reduction from 2008 to 2020		new	
 Energy Intensity reduction (Btu/ft²) 	30% (2003-2015)	17.2%	
Renewable electricity use	7.5% (2013)	4.2%	
Fleet petroleum reduction	30% (2005-2020)		
Other sustainability goals:			
 Select scope 3 GHG reduction target 	June 2, 2010	new	
 Potable water intensity reduction (gal/ft²) 	26% (2007-2020)	2.6%	
 Industrial/other water consumption reduction 	20% (2010-2020)	new	
Recycling & waste diversion	50% (by 2015)	49%	
Sustainable Procurement	95%	new	
Buildings meet sustainability principles	15% (by 2015)	1.6%	
Net-zero energy in new facilities	100% (by 2030)	new	

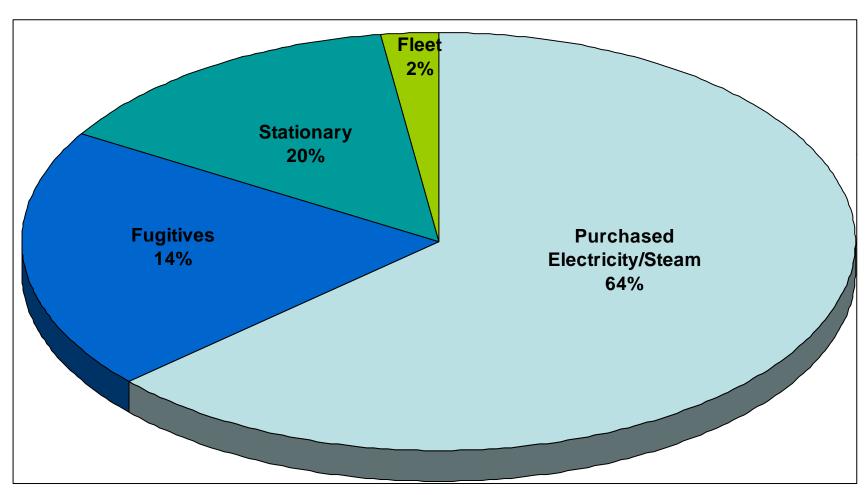
DOE Scope 1 and 2 GHGs

- DOE calculated an FY08 baseline of 4.1 million metric tons of carbon dioxide equivalent (MMTCO2e)
- DOE established a 2020 Reduction Target of 28%
 - Reductions to be achieved on absolute basis, regardless of budget or mission change



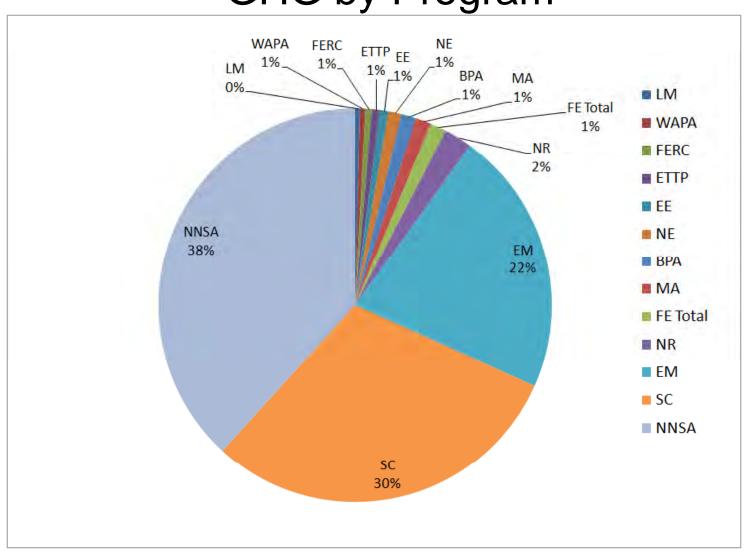
DOE Scope 1 and 2 Emissions (4.1 MMTCO₂e)





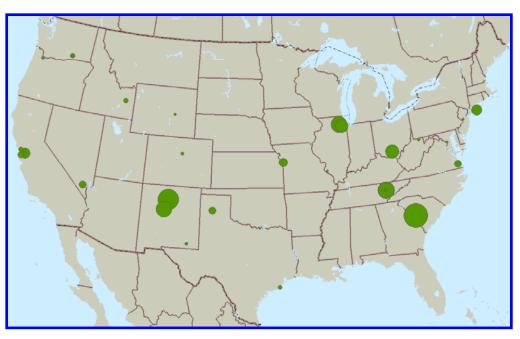
DOE GHG Emission Profile

GHG by Program



DOE GHG Emission Profile

Top Ten Scope 1 and 2 GHG Emitting Sites in FY 2008



			FY08 GHG
Program	Site	State	(MtCO ₂ e)
EM	SRS	SC	515,779
NNSA	LANL	NM	410,896
NNSA	Y-12	TN	272,560
NNSA	SNL-NM	NM	266,087
Science	ORNL	TN	258,597
Science	Fermi	IL	252,791
EM	PORTS	ОН	203,260
Science	ANL	IL	183,510
NNSA	LLNL	CA	123,506
Science	BNL	NY	123,273