



Opening Remarks: Department of Energy Real Property Management

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Agenda

1. Office of Engineering and Construction Management (OECM)
2. Size and Scope of Real Property Portfolio
3. OECM Director's "Big Three"
 1. Real Property in the DOE Strategic Plan
 2. Civilian Real Property Realignment Act
 3. Federal Buildings Personnel Training Act
4. Real Property Cost Savings & Innovation Plan
5. Update on the GAO High Risk Designation
6. Federal Real Property Profile
7. Other ...



I. Office of Engineering and Construction Management

- ▶ Paul Bosco, Director & Agency “Senior Real Property Officer”
- ▶ DOE representative to:
 - Federal Real Property Council (FRPC) and Office of Management & Budget (OMB)
 - Federal Facilities Council (FFC)
 - Others (DOD, GAO, GSA, etc.)
- ▶ Coordinate policy and real property management guidance



Office of Engineering and Construction Management

- ▶ Monitor & report DOE real property performance
- ▶ Advocate for real property stewardship in the budget process
- ▶ Facilitate compliance with Executive Orders affecting real property
- ▶ Enable real property information for decision- makers -
Administer FIMS (Facilities Information Management System)



2. DOE Real Property Portfolio

- **Facility & Infrastructure Mission:**
 - *“Build, modernize & maintain facilities & infrastructure to achieve mission goals and ensure a safe and secure workforce.”*
- **Occupancy:**
 - 16,700 Government employees
 - 115,000 Contractor employees

- **Portfolio:**
 - 47 Major Sites
 - 2.3 million acres
 - 18,000 buildings & structures
 - 121 million GSF
 - \$98B Replacement Plant Value (RPV)
 - 8 MSF Leased buildings (6.6% of total)
 - Annual Lease Rent \$144M

DOE Owned Real Property	Number	GSF	RPV	Deferred Maintenance
Buildings & Trailers	10,488	121M	\$58B	\$2.9B
Other Structures	7,779	N/A	\$39B	\$1.6B
Total	18,267	121M	\$98B	\$4.5B



3. The Director of OECM's Big Three

1. Real Property in the DOE Strategic Plan
 2. Civilian Real Property Realignment Act
 3. Federal Buildings Personnel Training Act
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3.1 - 2011 DOE Strategic Plan

- **Leverage Infrastructure to Support The Mission:**

- “A well-managed real property portfolio is essential to mission accomplishment”

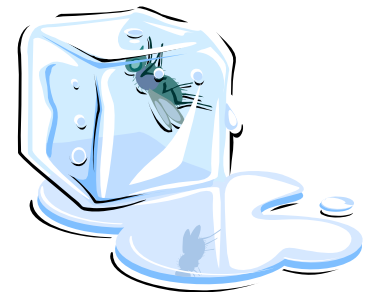
- **Targeted Outcomes:**

- Incorporate cool roof technology for 100% of new or replacement roofs on Department real property, unless economically infeasible.
- Achieve a level of 15% by 2015 of enduring buildings compliant with the High Performance Sustainable Buildings Guiding Principles contained in Executive Order (EO) 13423



3.1 Strategic Plan: Cool Roofs

- Secretary memorandum from **June 1, 2010** directs cool roof installation on new and replacement roofs
 -
 - “wherever practicable” and
 - “unless determined uneconomical by a life-cycle cost analysis”
- Types of cool roofs:
 - Reflective (solar reflectance index > 64)
 - Photovoltaic
 - Vegetative
- **R-30 Insulation** (unless cool roof was in place before 06/01/2010)



3.1 Strategic Plan: Cool Roofs

► OEEM support:

- Enable cool roof data elements in the Facilities Information Management System and Data Dictionary (complete)
- Add cool roof data to FY11 property peer review process (in process)
- Embed links to cool roof resources within MA Web and Wiki (in process)
- Prepare annual progress report at Program and Site level (December 2011)



A cool coating is applied to a dark roof (top), and a cool single-ply membrane roof is unrolled (bottom). *Image Source: DIY Advice*



3.1 Strategic Plan: Sustainability











Definition of Sustainability from E.O. 13514:

(1) “sustainability” and “sustainable” mean to create and maintain conditions, under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic, and other requirements of present and future generations;

- Sustainability... a maturing process...
 - Awareness – the new vocabulary
 - Sustainment for sustainment’s sake
 - Process change
 - **Cultural change**



3.1 Strategic Plan: Sustainability


OMB SCORECARD on SUSTAINABILITY/ENERGY Department of Energy: Daniel Poneman, Deputy Secretary				
	FY 2010 STATUS (As of January 2011)	Standards for achieving: 	Standards for achieving: 	Standards for achieving: 
	<ul style="list-style-type: none"> X Submitted comprehensive inventory as 2008 baseline for Scope 1&2 GHG Reduction Target of 28% by 2020¹ ___ Inventory submission late or incomplete (Y) 	<ul style="list-style-type: none"> Developed a base year and a complete, comprehensive 2010 GHG inventory for Scopes 1&2 and submitted to CEQ and OMB by 1/31/2011. 	<ul style="list-style-type: none"> Developed a base year and 2010 GHG inventory for Scopes 1&2 but was unable to deliver completed inventory on time to CEQ and OMB 	<ul style="list-style-type: none"> Did not develop a base year and 2010 GHG inventory for Scope 1&2.
	<ul style="list-style-type: none"> X Submitted comprehensive inventory as 2008 baseline for Scope 3 GHG Reduction Target of 13% by 2020¹ ___ Inventory submission late or incomplete (Y) 	<ul style="list-style-type: none"> Developed a base year and a complete, comprehensive 2010 GHG inventory for Scope 3 and submitted to CEQ and OMB by 1/31/11. 	<ul style="list-style-type: none"> Developed a base year and 2010 GHG inventory for Scope 3 but was unable to deliver completed inventory on time to CEQ and OMB. 	<ul style="list-style-type: none"> Did not develop a base year and 2010 GHG inventory for Scope 3.
	<ul style="list-style-type: none"> Reduction in energy intensity in goal-subject facilities compared with 2003: X 22.7% and on track for 30% by 2015 (G) ___ at least 12% (Y) 	<ul style="list-style-type: none"> Reduced energy intensity (Btu/GSF*) in EISA goal-subject facilities by at least 15 percent compared with 2003 and is on track for 30 percent reduction by 2015. 	<ul style="list-style-type: none"> Reduced energy intensity (Btu/GSF) in EISA goal-subject facilities by at least 12 percent compared with 2003. 	<ul style="list-style-type: none"> Did not reduce energy intensity (Btu/GSF) in EISA goal-subject facilities by at least 12 percent compared with 2003.
	<ul style="list-style-type: none"> Use of renewable energy as a percent of facility electricity use: X Total of 9.2% from renewable electricity sources including at least 2.5% from new sources (thermal, mechanical, or electric) (G) ___ 5% from any renewable source (Y) 	<ul style="list-style-type: none"> Uses at least 5 percent electricity from renewable sources as a percentage of facility electricity use & at least 2.5 percent of facility electricity use comes from new sources (post-1999). <i>(Thermal and mechanical renewable can be included in the 2.5 percent new requirement, but not the 5 percent goal. I.e., an agency meets all new sources requirement with thermal or mechanical energy (2.5 percent) but would still need an additional 5 percent from renewable electricity sources.)</i> 	<ul style="list-style-type: none"> Uses at least 5 percent renewable energy from electric, thermal or mechanical sources to power facilities and equipment; but less than half was obtained from new sources (post-1999) or part of the requirement was met with thermal and mechanical renewable energy. 	<ul style="list-style-type: none"> Did not use at least 5 percent renewable energy from electric, thermal or mechanical sources to power facilities and equipment.
	<ul style="list-style-type: none"> Reduction in potable water intensity compared with 2007 is at least: X 12.1% and on track for 26% in 2020 (G) ___ 4% (Y) 	<ul style="list-style-type: none"> Reduced water intensity by at least 6 percent from final approved 2007 baseline and is on track for 20 percent reduction by 2015. 	<ul style="list-style-type: none"> Reduced water intensity by at least 4 percent from final approved 2007 baseline. 	<ul style="list-style-type: none"> Did not reduce water intensity by at least 4 percent from final approved 2007 baseline.
	<ul style="list-style-type: none"> Reduction in fleet petroleum use compared to 2005 is at least: ≥10% and/or on track for 20% by 2015 (G) X 5.2% and not on track (R) 	<ul style="list-style-type: none"> Achieved a 10 percent reduction in petroleum use in its entire vehicle fleet compared to 2005 and is on track for 20 percent reduction by 2015. 	<ul style="list-style-type: none"> Achieved at least 8 percent reduction in petroleum use in the entire vehicle fleet compared to 2005. 	<ul style="list-style-type: none"> Did not achieve at least 8 percent reduction in petroleum use in its entire vehicle fleet since 2005.
	<ul style="list-style-type: none"> Sustainable green buildings: 1.20% of buildings sustainable 2.35% GSF of inventory sustainable 	<ul style="list-style-type: none"> Demonstrates implementation of Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings (GP) for new, existing and leased buildings; and is on track to meet 15% goal by 2015 by reporting that at least 5% of buildings >5,000 GSF meet GP as reported in the Federal Real Property Profile (FRPP). 	<ul style="list-style-type: none"> Incorporates Guiding Principles into all new design contracts for construction, major renovations and leases and at least 5 percent of GSF of its building inventory over 5,000 GSF meets GP as reported in FRPP. 	<ul style="list-style-type: none"> Cannot demonstrate compliance with GP on new construction, major renovations, or leases; and/or less than 5 percent of building inventory, either by number of buildings or GSF, over 5,000 GSF meets GP as reported in FRPP.

Footnote: ¹Agency status on achieving GHG metrics in FY2010 will be assessed in July 2011.

*GSF= Gross Square Footage














3.1 Strategic Plan: Sustainability












 Red	<p><u>1.20%</u> of buildings sustainable <u>2.35%</u> GSF of inventory sustainable</p>	
<p>Footnote: ¹ Agency status on achieving GHG metrics in</p>		



3.1 Strategic Plan: Sustainability




1) Employ Integrated Assessment, Operation & Management Principles			
	a. Integrated Assessment, Operation & Management	Met Thru: Policy & Normal Operation	
	b. Commissioning	Met Thru: Commissioning Activities	
2) Optimize Energy Performance			
	a. Energy Efficiency	Met Thru: Analysis & Meter Installation	
	b. Measurement & Verification	Met Thru: Meter Installation	
	c. On-Site Renewable Energy	Met Thru: Policy & Normal Operations	
	d. Benchmarking	Met Thru: Policy & Normal Operations	
3) Protect & Conserve Water			
	a. Indoor Water	Met Thru: Policy & Normal Operations	
	b. Outdoor Water	Met Thru: Policy & Normal Operations	
	c. Process Water	Met Thru: Policies	
	d. Storm Water	Met Thru: Policies	
	e. Water Efficient Products	Met Thru: Policies	

3.1 Strategic Plan: Sustainability

4) Enhance Indoor Environmental Quality			
a.	Ventilation & Thermal Comfort	Met Thru: Policy & Normal Operation	
b.	Moisture Control	Met Thru: Policies	
c.	Low Emitting Materials	Met Thru: Policies	
d.	Day-Lighting & Lighting Controls	Met Thru: Occupancy Sensors and Policy	
e.	Integrated Pest Management	Met Thru: Policies	
f.	Tobacco Smoke Control	Met Thru: Policies	
5) Reduce Environmental Impact of Materials			
a.	Recycled Content	Met Thru: Policy & Normal Operation	
b.	Bio-based Content	Met Thru: Policy & Normal Operation	
c.	Environmentally Preferred Products	Met Thru: Policies	
d.	Waste & Materials Management	Met Thru: Policy & Normal Operation	
e.	Ozone Depleting Substances	Met Thru: Policy & Normal Operation	

Ability to Comply (on a per asset level):

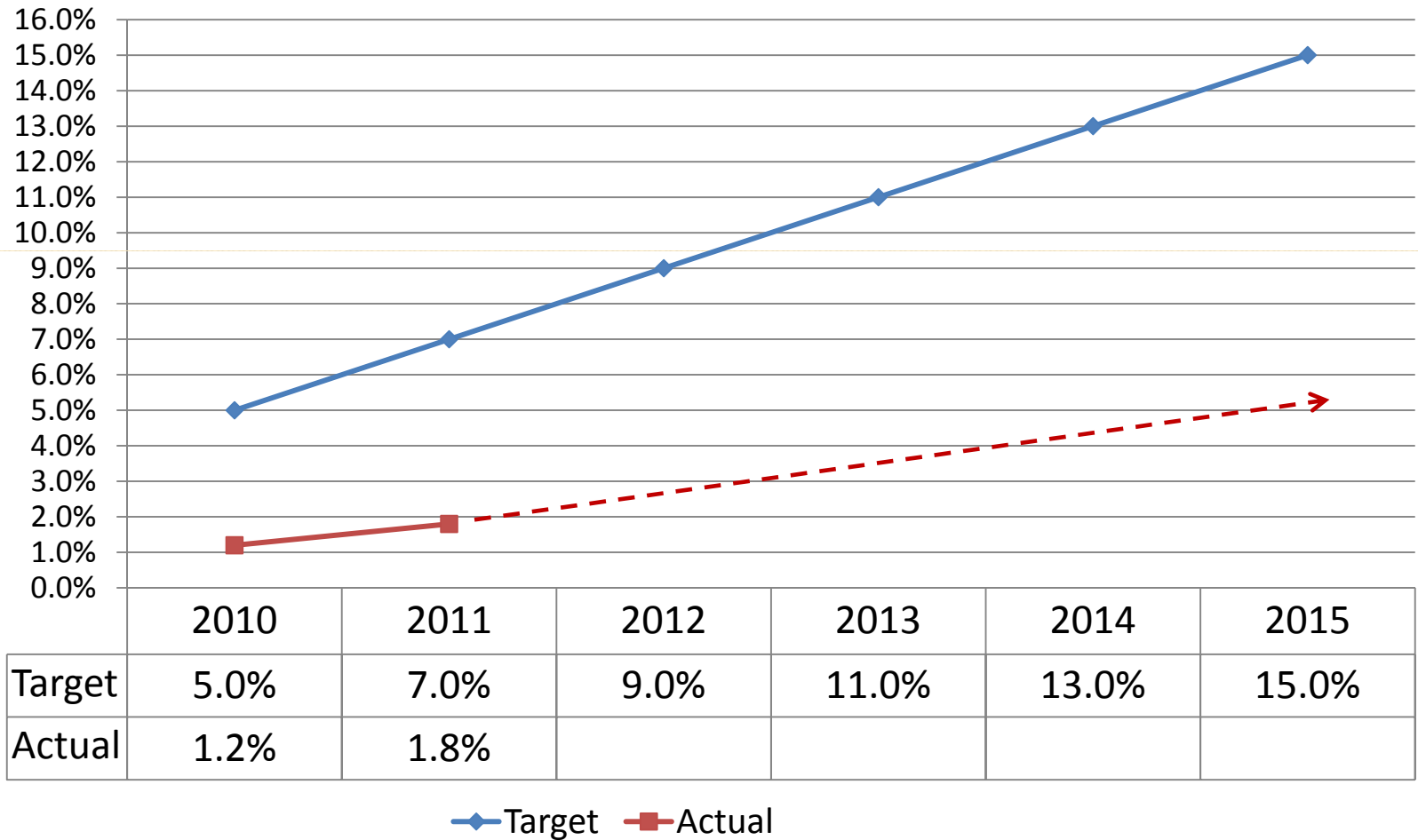
KEY:

-  Easy - Policy development, contract modification, etc
-  Moderate – Operational changes, new processes
-  Challenging – Funding, contract requirements, behind schedule



3.1 Strategic Plan: Sustainability

Percentage
by Count of
Compliant
Buildings



3.2 Civilian Property Realignment Act

- Multiple legislative proposals
- Support in both parties
- Civilian equivalent to the Base Realignment and Closure Act
 - Overseen by a “Blue Ribbon Panel”
- Intentions:
 - Reduce redundancy and overlaps
 - Reduce and consolidate the Federal footprint
 - Expedite disposal of excess real property
 - Reduce operating and maintenance costs
 - Assist agencies in achieving sustainability goals



3.3 Federal Buildings Personnel Training Act

- ▶ Public Law 111-308 enacted Dec. 15, 2010
- ▶ Lead: General Services Administration (GSA)
- ▶ Support: Energy Efficiency & Renewable Energy (EERE) in the sustainability area
- ▶ Requires:
 - Both **Federal** and **Contractor** personnel performing building operations and maintenance, energy management, safety, and design functions comply.
 - Identification of course(s), certification, degree, license, or registration for core competencies and for ongoing training.



3.3 Federal Buildings Personnel Training Act

▶ **Identified core competencies:**

- Building Operations and Maintenance
- Energy Management
- Sustainability
- Water Efficiency
- Safety (including electrical safety)
- Building Performance Measures



▶ GSA may identify additional competencies



3.3 Federal Buildings Personnel Training Act

- ▶ **June 2012** - Core Competencies identified
- ▶ **June 2013** - All Federal employees and contractors shall demonstrate compliance with competencies.
- ▶ Law: <http://www.gpo.gov/fdsys/pkg/BILLS-111s3250enr/pdf/BILLS-111s3250enr.pdf>



4. Real Property Cost Savings & Innovation Plan (RPCSIP)

- Presidential Memorandum on “Disposing of Unneeded Federal Real Estate—Increasing Sales Proceeds, Cutting Operating Costs, and Improving Energy Efficiency“, June 10, 2010
- Intent:
 - Eliminate wasteful spending
 - Save energy and water
 - Reduce greenhouse gas pollution
 - Accelerate elimination of excess properties
 - Make better use of remaining real property



RPCSIP – Civilian Agency Goal

Civilian agencies will need to produce in proceeds and savings by 2012:

**\$3
BILLION**



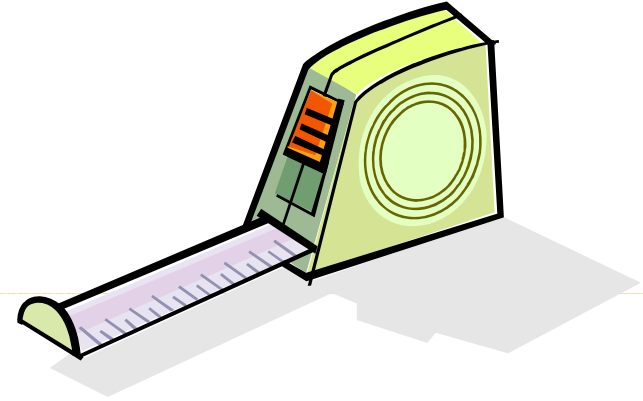
- ✓ Proceeds from sales
- ✓ O&M (including energy) cost avoidance

☞ Agencies in the **BRAC** will save **\$9.8B** (\$5B in O&M cost avoidance) by 2012



RPCSIP

- Real property measured by:
 - Utilization and occupancy rates;
 - Annual operating cost;
 - Energy efficiency; and,
 - Sustainability
- How?
 - Accelerate identification of excess assets and dispose of surplus assets
 - Eliminate lease arrangements that are not cost effective
 - Consolidate common asset types within and across agencies;
 - Increase occupancy rates



DOE's RPCSIP Included (FY2010 – 2012)

- **#1 Dispositions (Demolition, Sales)**

- Disposition costs offset by any proceeds and O&M cost avoidance

- **#2 Consolidations (Relocations)**

- Relocation, disposition, construction, and termination costs offset by any proceeds and O&M cost avoidance

- **#4 Leases Ended**

- Relocation and termination costs offset rental cost avoidance

- **#5 Other approaches to reduce expenses**

- e.g., teleworking

The plan took credit for:

- a. National Geologic Repository
- b. EM Mission Funded Disposition



RPCSIP Also Includes:

- **Eliminated Deferred Maintenance**

- Disposed assets carried deferred maintenance

- **Reductions in Operating Costs Due to Status Change**

- From an active to an inactive status, the apparent reduction in operating costs

- **Energy Savings Performance Contracts**

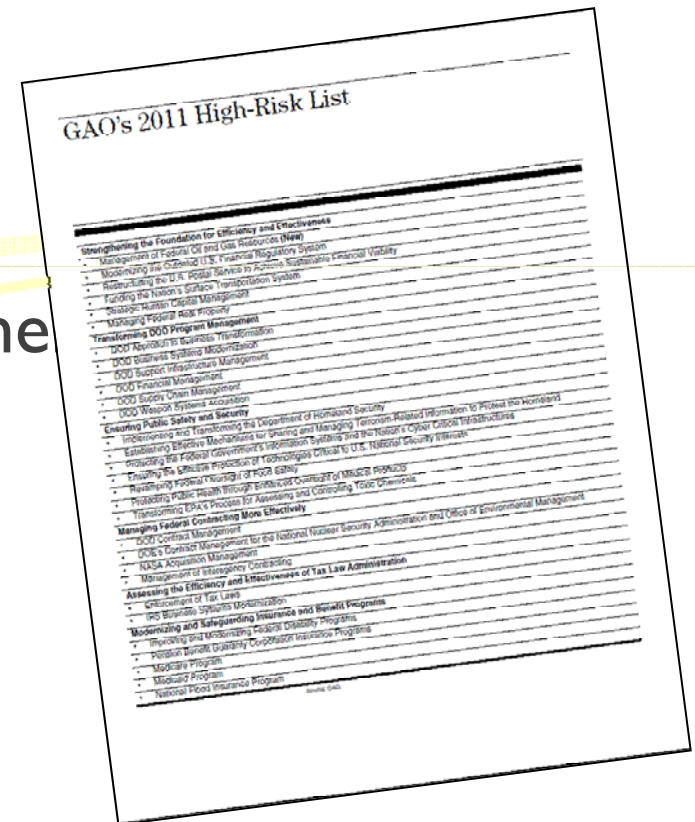
- Cost savings experienced during the report period due to energy conservation measures implemented

Following through on the current plan will allow achievement of the **\$375M cost avoidance target**



5. GAO –Real Property Better But, Still at Risk

- All real property designated High Risk by GAO since 2003
- In 2010 – GAO noted improved accounting and condition assessments
- However, continued concern:
 - Underutilized and excess property
 - Reliance on “costly” leases



6. Federal Real Property Profile

- May 31 - OMB proposed:
 - 10 new data elements:
 - Total Number of Contractors
 - Total Number of Federal Personnel
 - Total Number of Federal Personnel Tele-working
 - Candidate for Sale
 - Planned Disposition Method
 - Planned Disposition
 - Total Annual BTU Consumption
 - Lease Cost
 - Lease Expiration Date
 - Lease Termination Right Date
 - Lease Identifier
 - Planned Excess
 - Minor changes to 3 existing elements
 - Utilization
 - Disposition
 - Sustainability



Other...

- FIMS 2.0
- Deferred Maintenance
- Condition Assessment
- Disposition
- Maintenance Funding

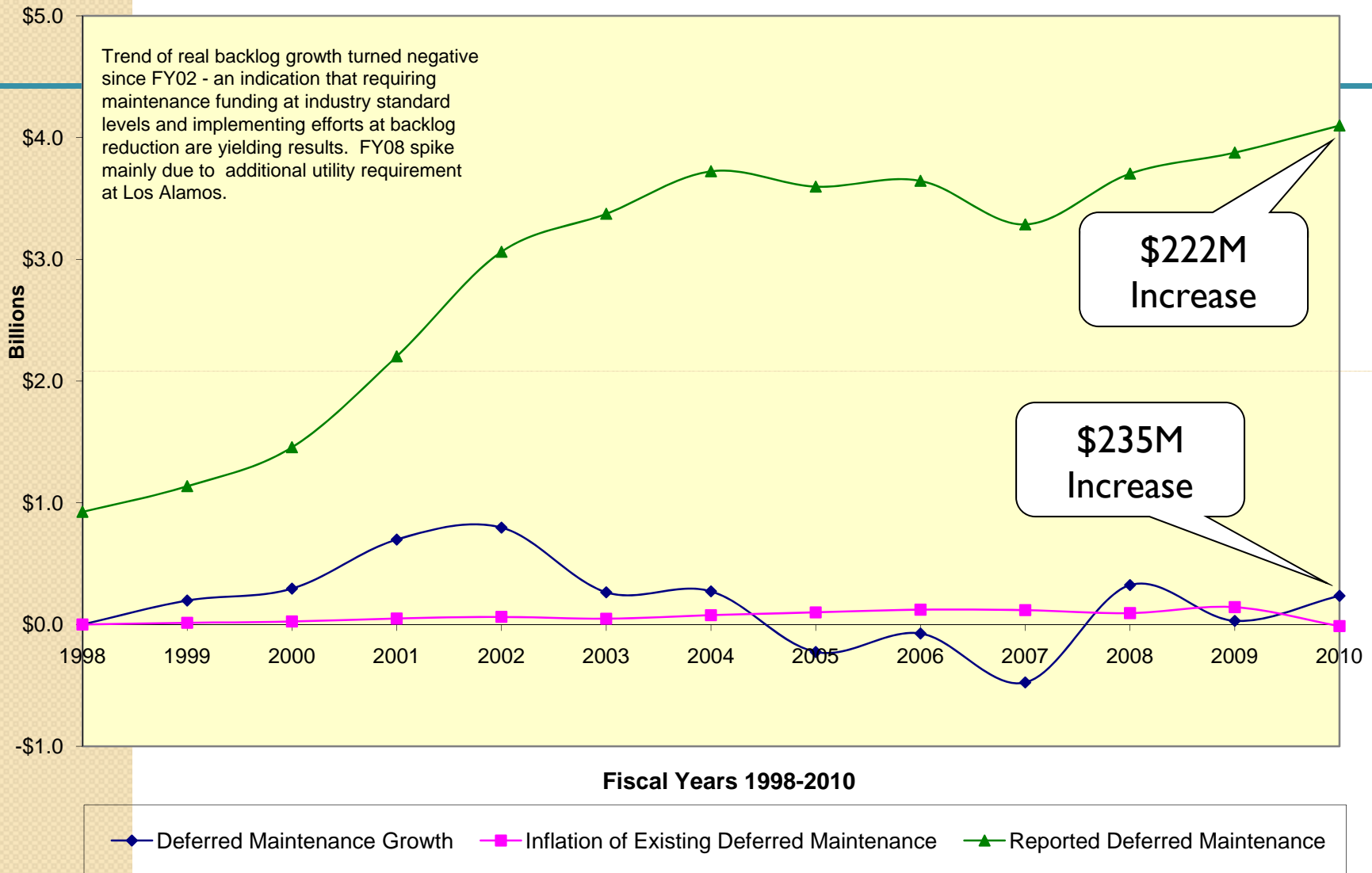


Other... FIMS 2.0

- Replaces an aging technical infrastructure
 - Including hardware upgrades (application and database server)
- Upgrades software
- Improves user interface but retains major functionality
- Provides a state of the art platform for next generation FIMS development. Allows:
 - Enhanced graphical Interface
 - Integration of mapping
 - Advanced analytics



DEPARTMENT OF ENERGY DEFERRED MAINTENANCE TRENDS



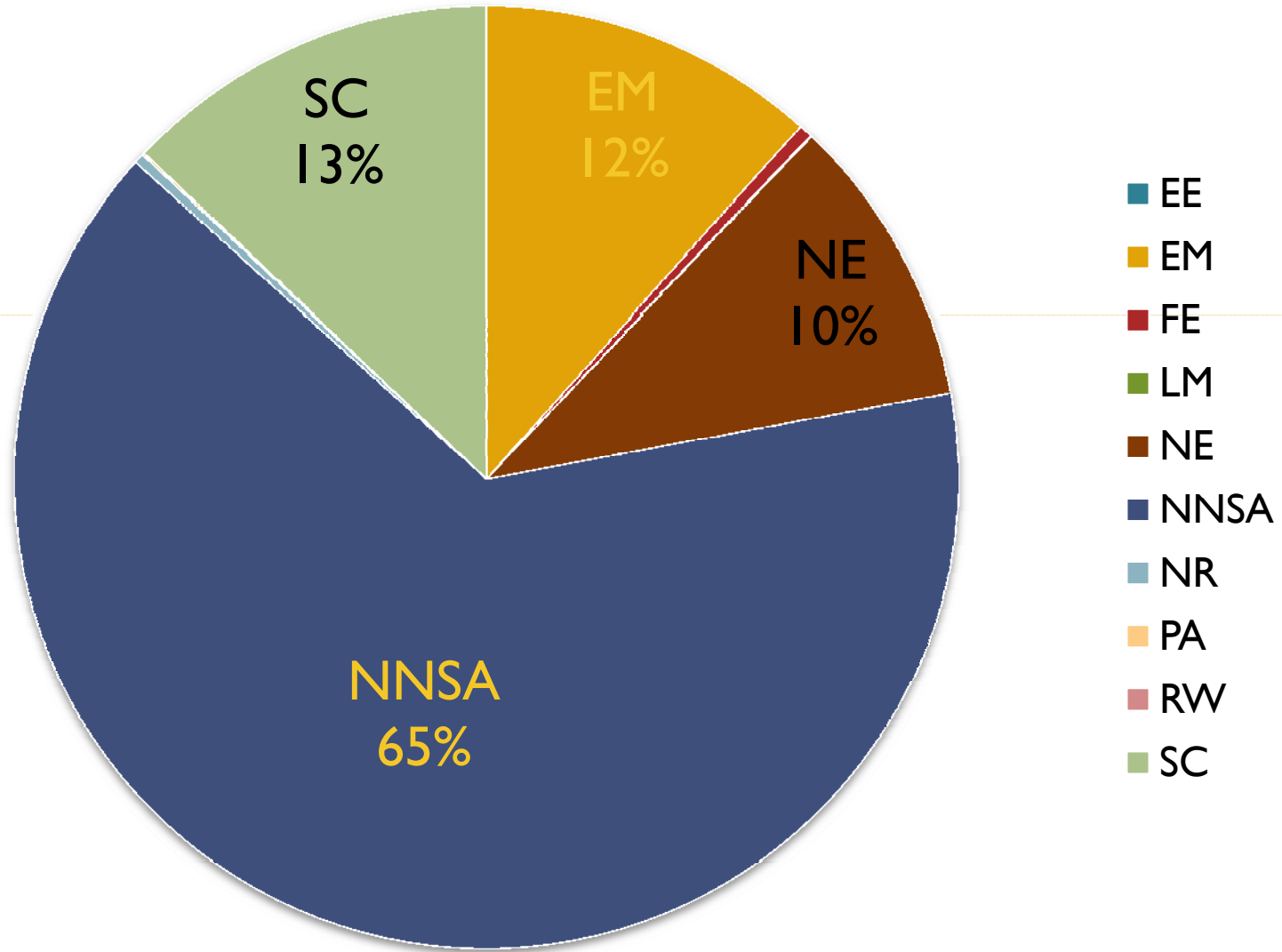
Other... Deferred Maintenance: FY 2010

Item	“Up” Side	“Other” Side
DM increases by \$222M from FY 09 ...	5 of 10 programs reduced DM by \$72M	5 of 10 programs increased DM by \$294M
ACI decreases (0.314%) from FY 09 ...	Assets with compliant inspection dates increased by 5.5%	DM increased by 5.7% RPV decreased by 1.2%
Joining and leaving the list (FY10 / FY09) ...	1,968 assets (11%) <i>resolved</i> their DM, recorded as \$242M in FY09	1,363 assets (8%) <i>recorded</i> DM of \$185M in FY10 where none existed in FY 09

Bottom Line: Reported to CFO a DM total of **\$4.098B**
with **70%** in acceptable condition

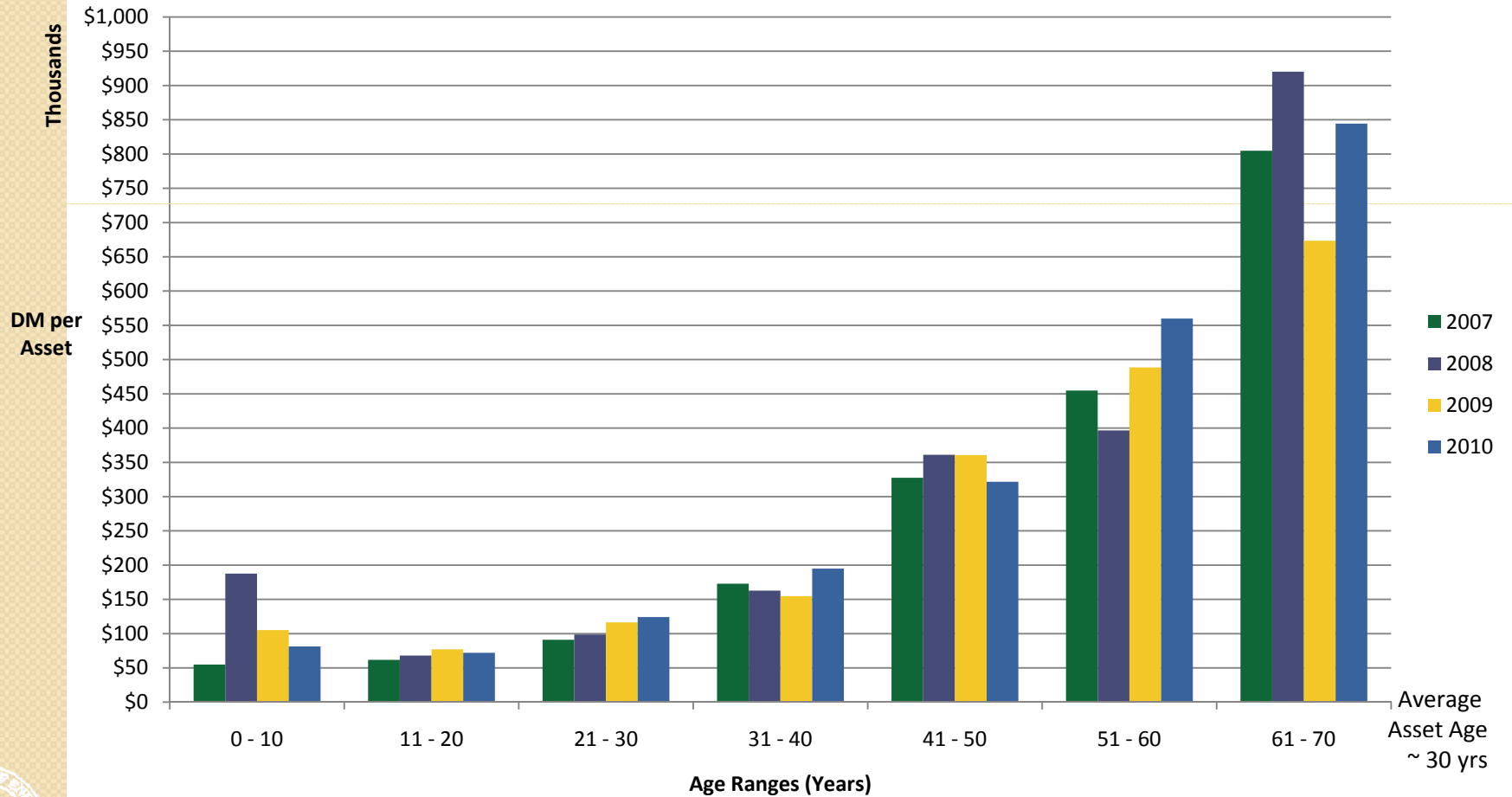


Other... Deferred Maintenance

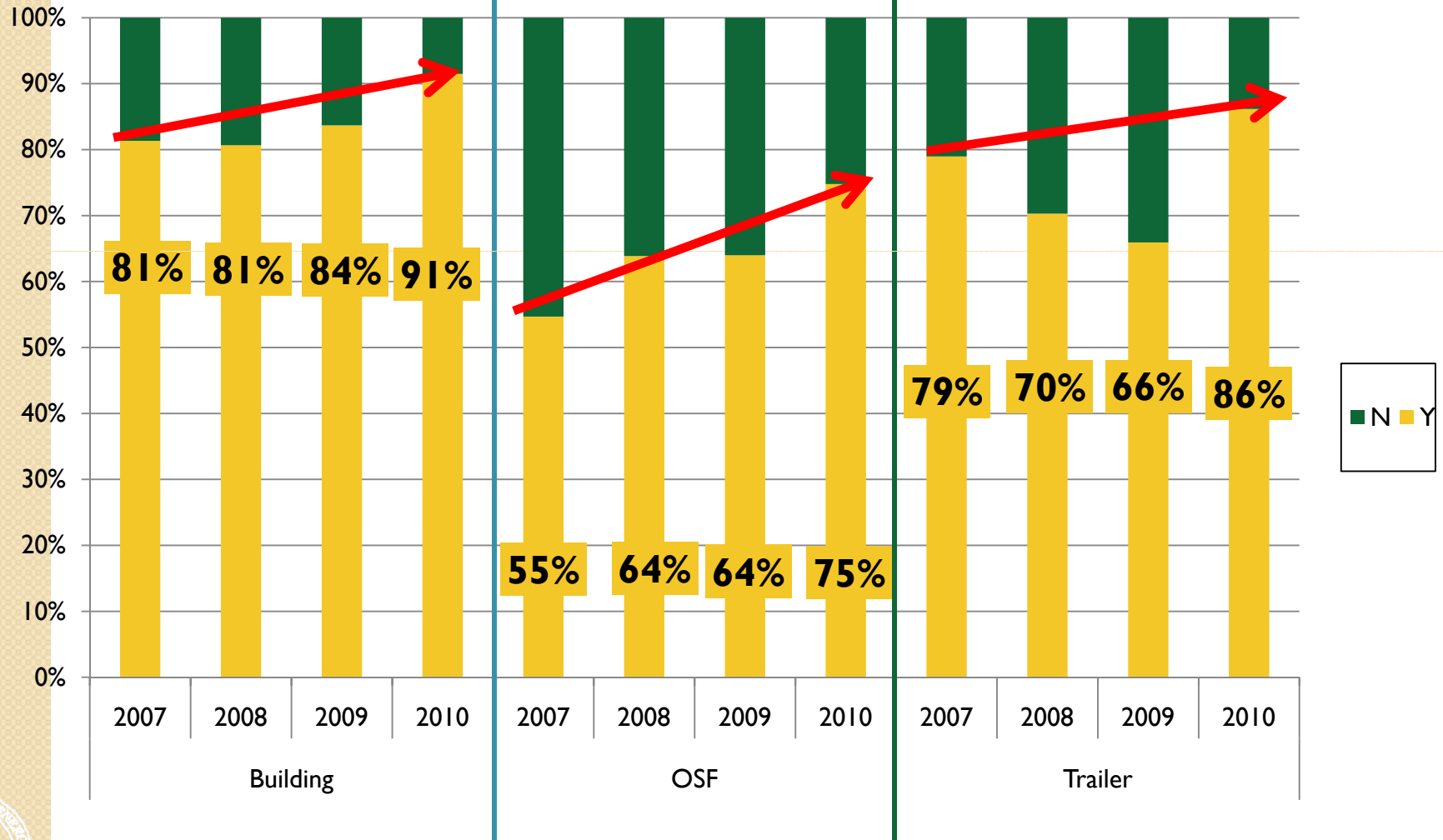


Other... Deferred Maintenance

DM Normalized by Count Shown by FY and Asset Age



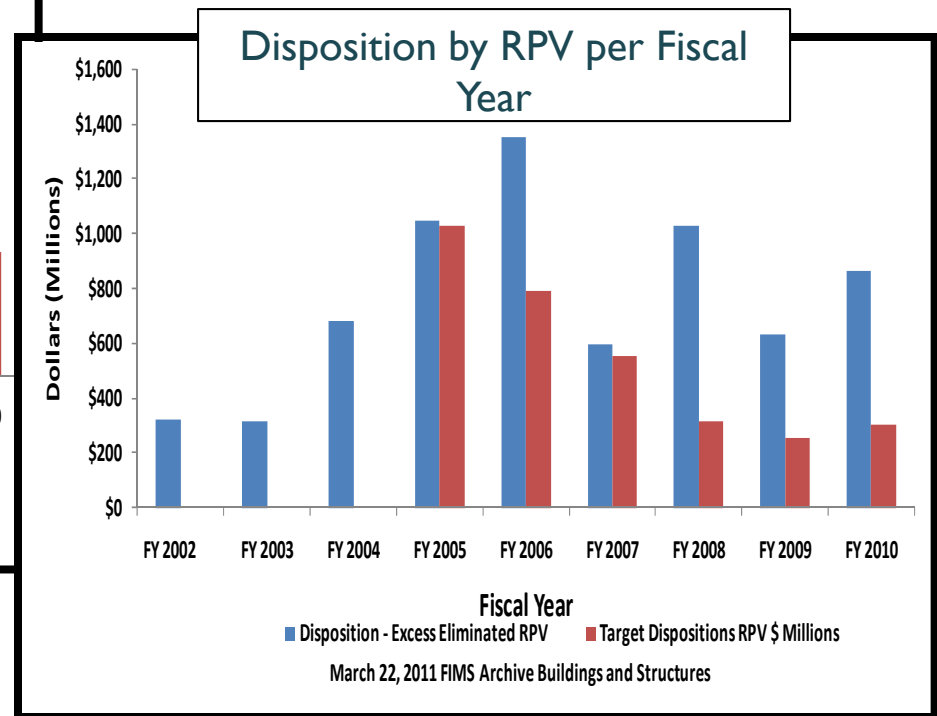
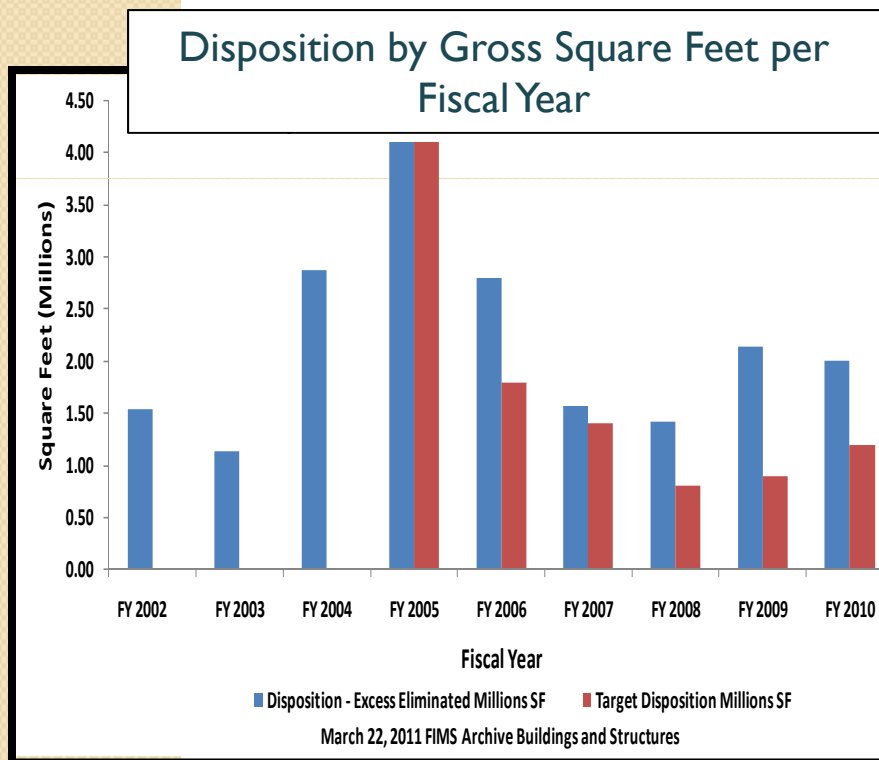
Other...Real Property Condition Assessments



Other... Facility Disposition

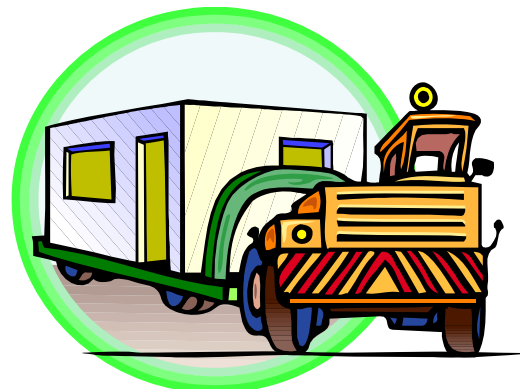
(by GSF & RPV)

► “Maintain a Robust Disposition Program”



Other... Trailer Disposition

- Question:
 - Can trailers be disposed of as personal property?
- Answer:
 - Yes - 41 CFR 102–75.160 allows for the disposal of all trailers as personal property. Other non-permanent buildings too.



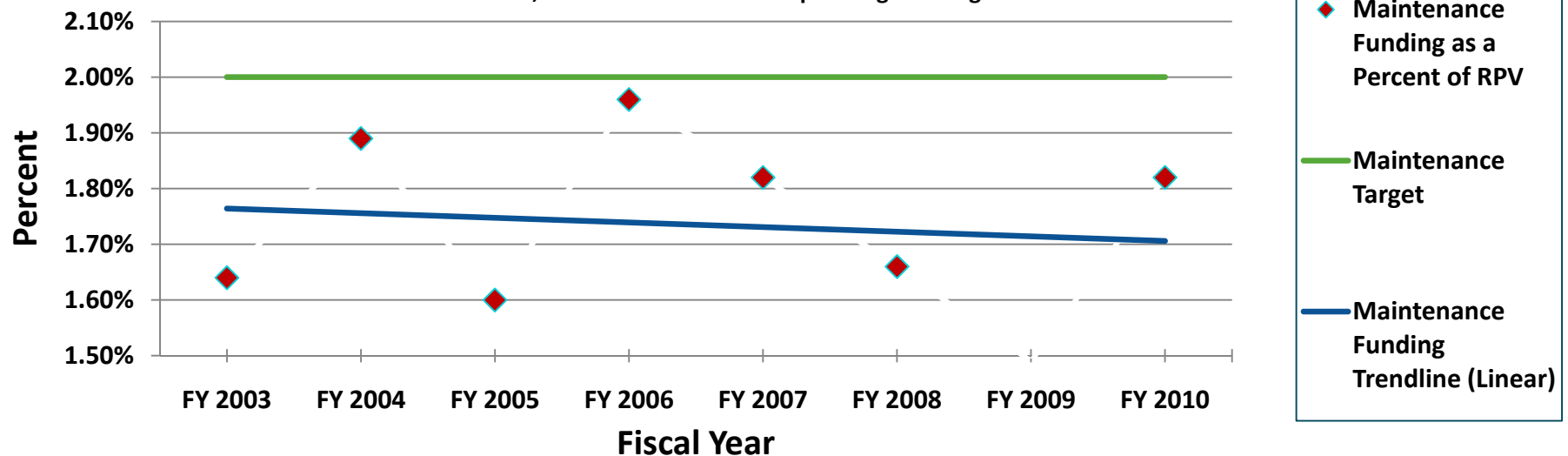
Other... Maintenance Funding

▶ Maintenance Funding Level

- Maintenance budget request vs. Replacement Plant value (RPV)
 - Target: 2-4% (an industry standard benchmark)
 - The Department is underfunding maintenance and repair (FY10: 1.82%)

Maintenance Funding (percent of RPV)

FIMS March 22, 2011 DOE Owned and Operating Buildings



Other...Net Zero Buildings

- Executive Order 13514 – “Federal Leadership in Environmental, Energy, and Economic Performance”
 - Beginning in 2020 and thereafter, ensuring that all new Federal buildings that enter the planning process are designed to achieve zero-net-energy by 2030;”



ORNL Building 3156



Thank you!



Portfolio Management – Evolution at DOE

