

# EFCOG 2011 Project Management Working Group (PMWG) Winter Meeting

## Project Management Excellence: What's Next?

December 8, 2011

Paul Bosco, PE, PMP, CFM, LEED-AP

Director, Office of Engineering and Construction  
Management (OECM)



*Office of Management  
Office of Engineering and  
Construction Management*

**MONITOR**  
EXCHANGE  
PUBLICATIONS  
& FORUMS

# Project Success

- Project Success: (For “Capital Asset Projects”)
  - Project completed within the ORIGINAL approved scope baseline, and within 110% of the ORIGINAL approved cost baseline at project completion (CD-4), unless otherwise impacted by a directed change.
- Portfolio Success:
  - 90% of all projects meet project success criteria.



*Office of Management  
Office of Engineering and  
Construction Management*

# How are we Doing?

Based on 3-Year Rolling Timeline

Capital Asset	FY09 Actual	FY10 Actual	FY11 Target	FY11 Forecast
Construction	76%	74%	90%	84%
Cleanup	--	100%	80%	94%
Combined	--	--	--	--
SC	90%	92%	90%	100%
EM (Const)	--	--	90%	0%
EM (Cleanup)	--	100%	80%	94%
NNSA	72%	68%	90%	75%
Other	67%	0%	90%	83%

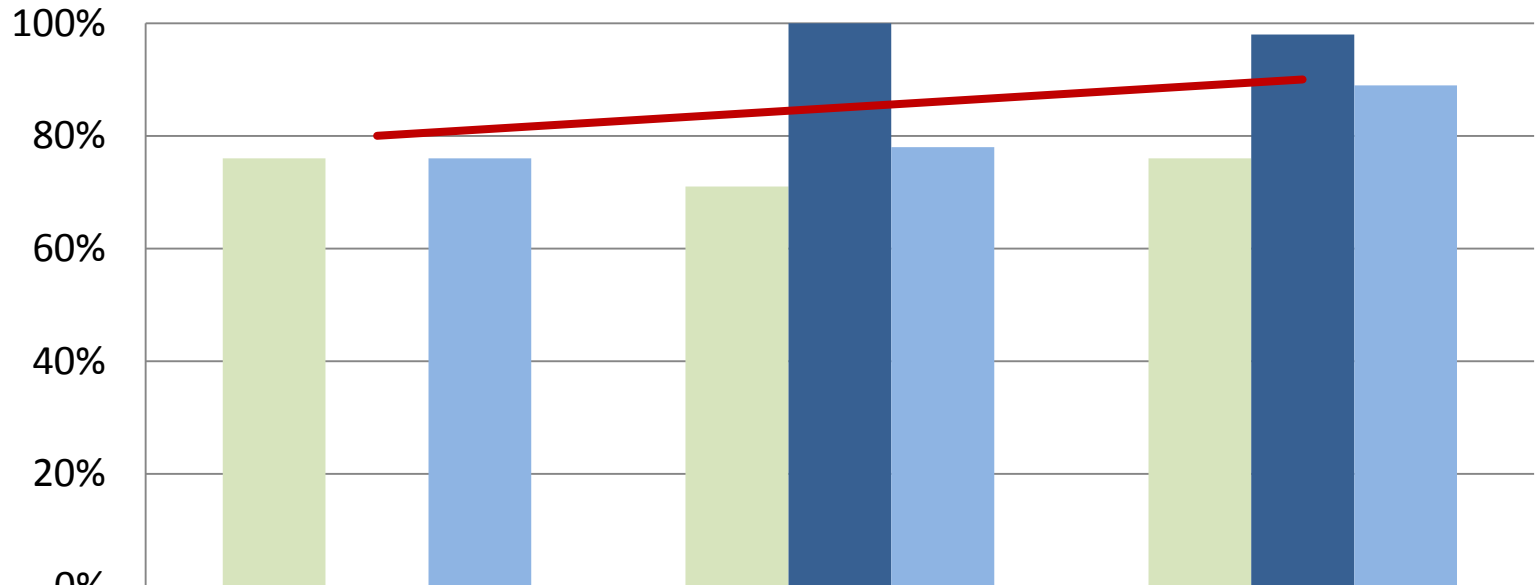


Office of Engineering and  
Construction Management

# How are we Doing?

Pre- vs. Post-RCA

(Demarcation Date: October 1, 2007)



	FY07-09	FY08-10	FY09-11*
Pre-RCA	76%	71%	76%
Post-RCA	76%	100%	98%
All Projects	76%	78%	89%
Target	80%	85%	90%



Office of Management  
Office of Engineering and  
Construction Management



# Documenting Project Success

Templates Online & OECM Review Draft Memos

## CD-2 → Commitment

- Scope
- Minimum Key Performance Parameters
- Total Project Cost
- CD-4 Date (Month/Year)
- Signed by Acquisition Executive

## CD-4 → Auditable

- Scope Accomplished
- Key Performance Parameters Met
- Total Project Cost
- Completion Date (Month/Year)
- Signed by Acquisition Executive



*Office of Management  
Office of Engineering and  
Construction Management*

*If a tree falls in the forest and no one is there to hear it, does it make a sound?*



# Tracking Project Performance

(Against Current Project Performance Baseline)

**Overall Project Assessment = EVMS Indicators + Assessment Factors**

Project is expected to meet its performance baseline.

Project is at risk of breaching its performance baseline.

Project is expected to breach its performance baseline.

=

EVMS Indicators:

- CPI
- SPI
- TCPI
- EACs
- Variances
- Trends
- % Complete

+

Assessment Factors:

- Data validity
- MR & Contingency
- Reports
- Reviews
- Communication
- Other information

- Yellow is not bad
- DOE is not fixated on “getting to green,” only achieving project success and meeting our commitments
- Assessment is not solely ratio based
- Trends are important



*Office of Management  
Office of Engineering and  
Construction Management*

# Significant Improvements

## DOE O 413.3B

(“Effective May 29, 2011”)

---

- Established front-end planning maturity objectives
- Clarified project size and structure; program versus project management...”chunking”
- Transformed commitment to funding, budgeting; stabilized funding
  - Full funding for smaller projects
  - Funding profiles – changes require AE approval



\* DOE O 413.3B – Program and Project Management for the Acquisition of Capital Assets

*Office of Management  
Office of Engineering and  
Construction Management*

# Significant Improvement

## DOE O 413.3B

---

- Enhanced management and oversight
  - Peer reviews for projects >\$100M
  - PARS II central repository for project data – data accuracy and consistency
  - ICRs/ICEs for projects >\$100M
- Reassess CD-1 (Alternative Selection)
  - If CD-1 cost range grows by 50% as project proceeds toward CD-2 (Approval of Performance Baseline) – another ICE/ICR



*Office of Management  
Office of Engineering and  
Construction Management*

# Project Peer Reviews

- Annually for projects  $\geq$  \$100M; more frequent for complex projects or those with performance issues
- Follow SC model
  - Include SC member on team; observe an SC review
- Standard format of review; five part (tailored appropriate to project needs)
  - Technical Scope
  - Cost, Schedule and Risk
  - Management
  - Environment, Safety, Health, and Quality Assurance
  - Startup and Commissioning



*Office of Management  
Office of Engineering and  
Construction Management*

# Philosophical Questions

- Project Success and Exceptional Project Management - Are These the Same?
- Are Construction Projects Different from Environmental Cleanup Projects?
- To Chunk or Not to Chunk – That is the Question?
- To GPP or Not to GPP – Is that the answer?



# Project Success or Exceptional Project Management

DOE Project Number	Project Name	Site Code	CD2 TPC	CD-4 Actual or Planned TPC
CH-ANLE-0040.NEW.R1.1	Nuclear Facility D&D - ANL - East - Building 310	ANL	13,428,000	8,098,000
OR-0040.C3	ETTP Main Plant	Oak Ridge	18,900,000	10,771,000
ID-0030B.R1.2	Soil and Groundwater Cleanup - In-Situ Grouting	INL	22,700,000	6,830,000
SR-0030.R1.3	P Ash Basin Remediation	SRS	30,000,000	18,350,000
OR-0041.R1.3	Disposal Facility Expansion - EMWMF (Cell 5 Expansion)	Oak Ridge	34,000,000	18,000,000
VL-LANL-0040D.R1	D&D - TA-21	LANL	74,000,000	48,600,000



*Office of Management  
Office of Engineering and  
Construction Management*

# To Chunk or Not to Chunk

Post-RCA (CD-2 after 10/1/2007)	\$10M-\$20M	\$20M-\$40M	\$40M+	Total	\$10M-\$40M
FY09-11 Total Projects:	14	12	4	30	26
Standard met or projected:	13	12	4	29	25
% Meeting Standard:	93%	100%	100%	97%	96%

- “Sweet spot” for chunked project size is \$20M-\$40M – for Env. Cleanup Projects
- Fully financed as demonstrated by ARRA



# To GPP or Not to GPP

- GPPs do NOT count towards project success, only projects > \$10M
- Increase the number of successes in the numerator and denominator to counter effect of any single failed project
  - In sample size of 5 to 10 projects, 1 failure has a large effect - 10% to 20% drop
  - In sample size of 20 to 30 projects, 1 failure has a much smaller effect – 3% to 5%



# Path Forward

Improving Project Management

- Follow the DOE framework now in place
  - Anything you need to know...  
<http://energy.gov/management/office-management/operational-management/project-management>
- Improve portfolio management
  - What are your project priorities?
  - Are they aligned to the budget?
  - How do you protect project funding?

Credible project success is the key!

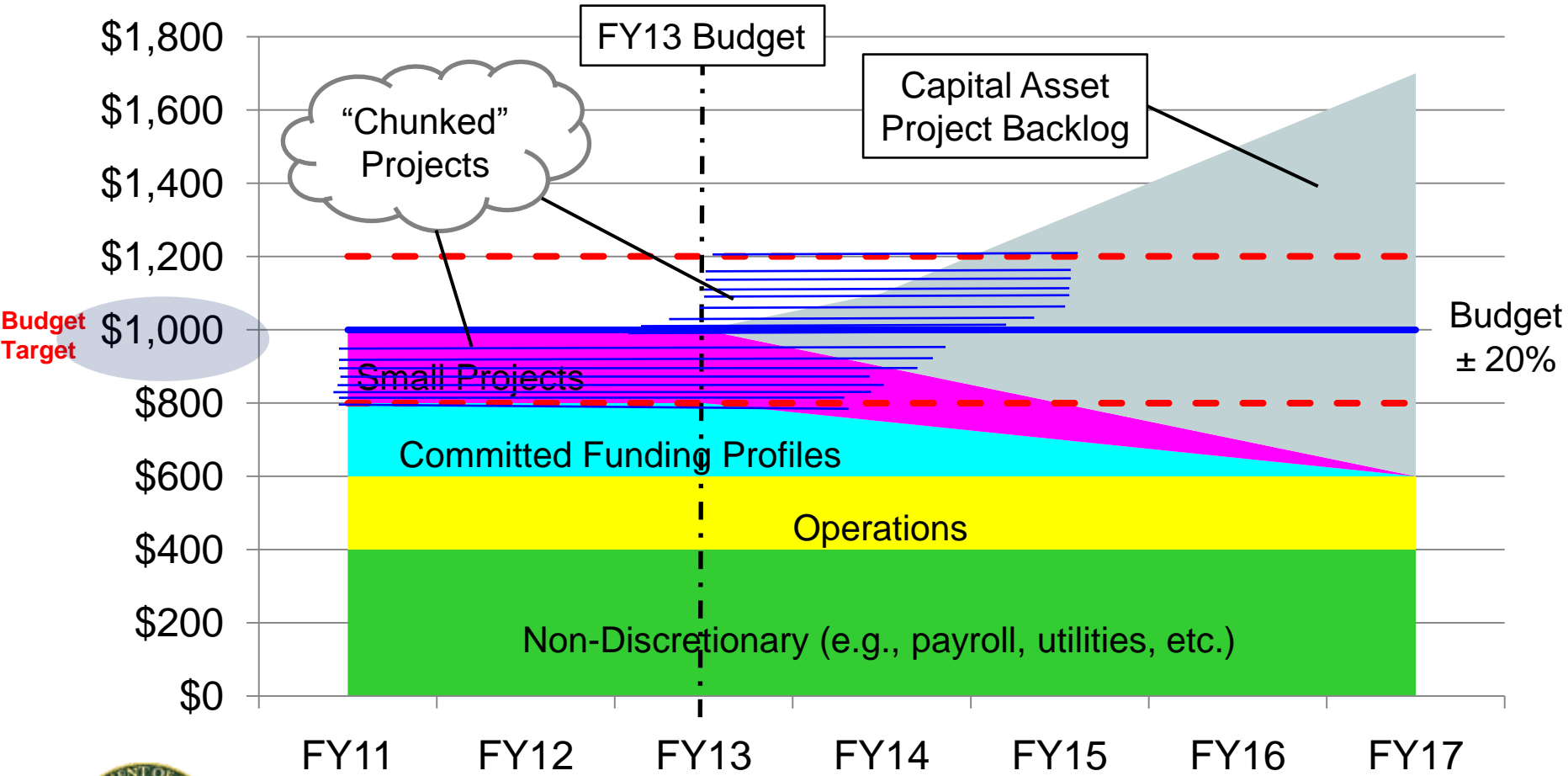


*Office of Management  
Office of Engineering and  
Construction Management*

**MONITOR**  
EXCHANGE  
PUBLICATIONS  
& FORUMS

# Portfolio Management

Notional Data (\$1B Budget)



Office of Management  
Office of Engineering and  
Construction Management



# Final Thoughts – What's Next?

---

- DOE has improved in project management
- We must document our successes
- Project management framework is in place
- Plan your project; execute; safeguard funds
- Strengthen portfolio management – budget challenges lay ahead

Credible project success is the key!



*Office of Management  
Office of Engineering and  
Construction Management*

**MONITOR**  
EXCHANGE  
PUBLICATIONS  
& FORUMS

# Questions or Comments?



*Office of Management  
Office of Engineering and  
Construction Management*