



2015

Department of Energy
Acquisition and Project Management Workshop
"Federal Stewardship—Providing the Value Proposition"

Project Management Update

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Agenda

- Project Portfolio and Trends
- Project Success Metrics
- Other Performance Metrics
- GAO High-Risk Series Update
- GAO's Shift in Focus
- Areas of Concern



Recent Project Management and Contract Management Initiatives

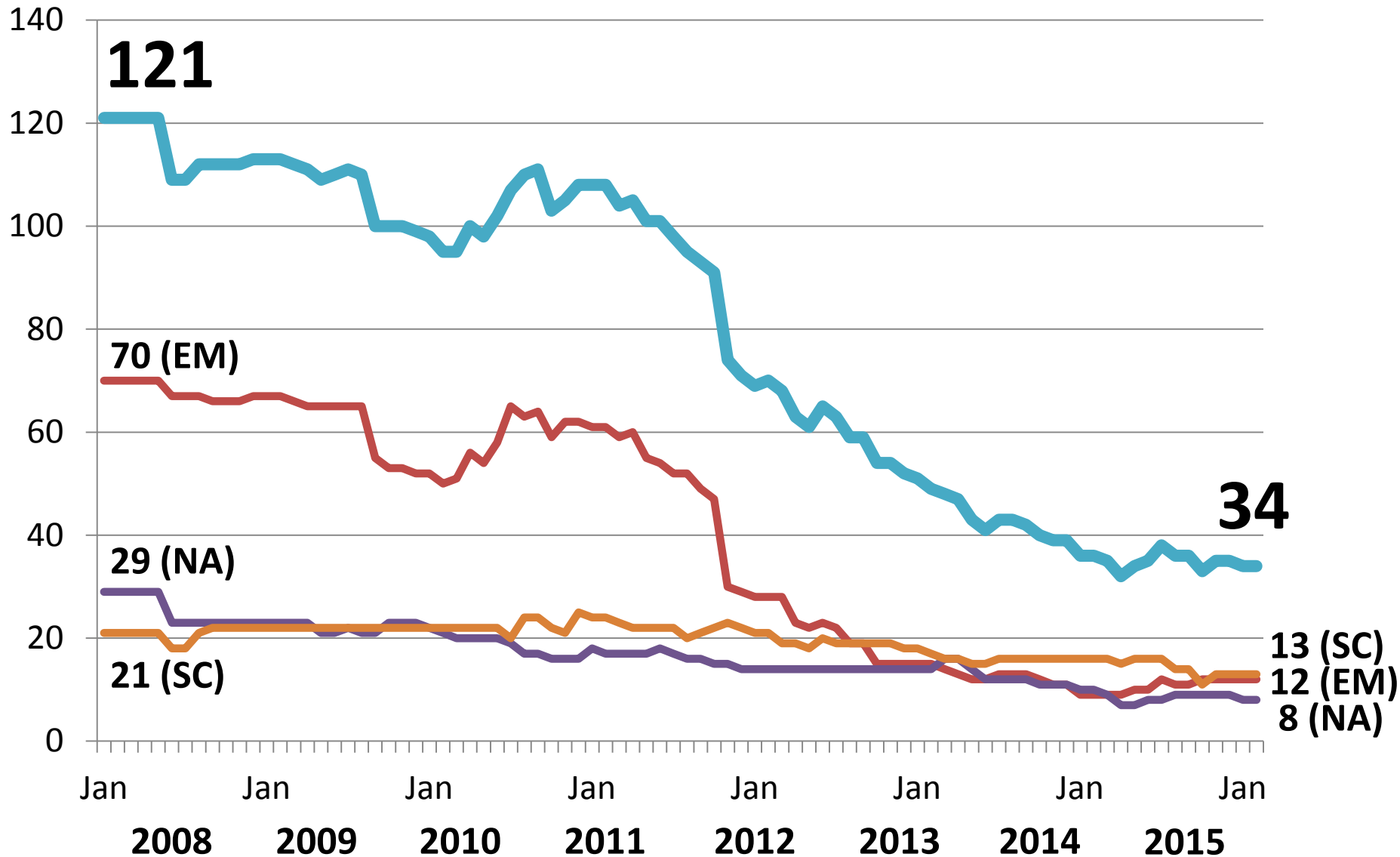
(A Time of Reflection)

- 2008: Root Cause Analysis (RCA) Corrective Action Plan (CAP)
- 2010: Contract & Project Management Summit
- 2011: DOE Order 413.3B update takes effect
- 2012: Aligning contract incentives
- 2014: Secretary's Project Management Initiative (Policy Memo dtd Dec 1, 2014)



Number of Projects (2008-2015)

Current Post CD-2 Workload

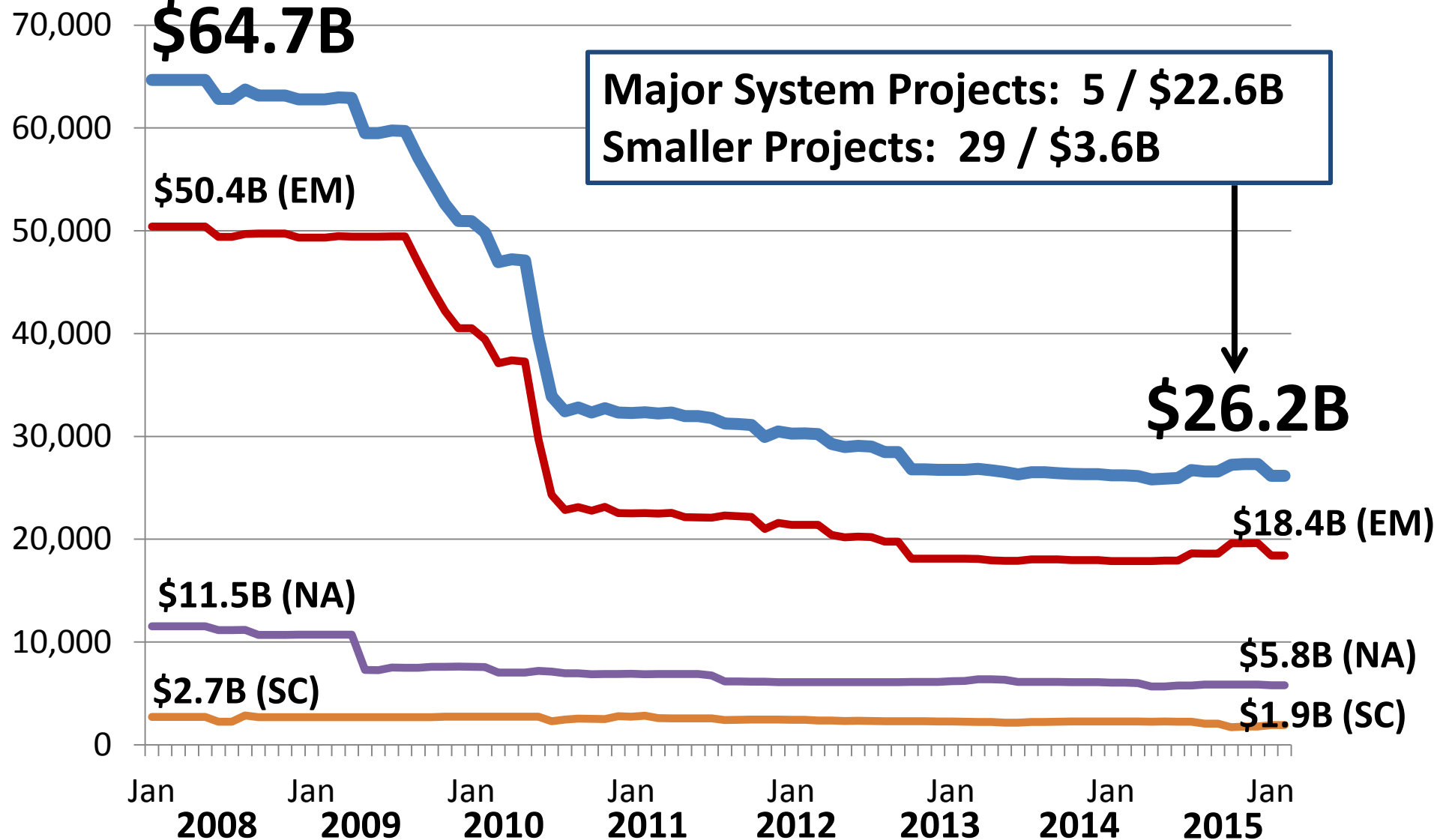




Dollar Value of Projects (2008-2015)

Current Post CD-2 Workload

\$ Millions





February Project Portfolio Status

(Based on Current Performance Baseline)

Program	Total Active Projects Post CD-2		Total Projects Post CD-2 Green		Total Projects Post CD-2 Yellow		Total Projects Post CD-2 Red		% of Post CD-2 Projects with Acceptable Status	
	No.	\$(M)	No.	\$(M)	No.	\$(M)	No.	\$(M)	No.	\$(M)
EM	12	\$18,397	4	\$2,558	--	--	8	\$15,839	33%	14%
NA	8	\$5,781	5	\$417	2	\$507	1	\$4,857	88%	16%
NE	1	\$78	1	\$78	--	--	--	--	100%	100%
SC	13	\$1,913	12	\$1,896	1	\$17	--	--	100%	100%
DOE	34	\$26,169	22	\$4,949	3	\$524	9	\$20,696	74%	21%



February Project Portfolio Status

(Post CD-2 Projects Greater Than \$750M)

No.	Project Name	TPC (\$M) at CD-2	TPC (\$M) Current	2013	2015
1	Salt Waste Processing Facility (SWPF)	\$900.0	\$2,322.0	R	G
2	Waste Treatment and Immobilization Plant (WTP)	\$5,781.0	\$12,263.0	R	R
3	Nuclear Facility D&D – River Corridor Closure Project	\$2,251.5	\$2,251.5	G	R
4	Mixed Oxide Fuel Fabrication Facility (MOX)	\$4,814.3	\$4,857.1	R	R
5	National Synchrotron Light Source-II (NSLS-II)	\$912.0	\$912.0	G	G
	TOTAL		\$22,605.6		



Project Success Metric

(Based on Original CD-2)

- Project Success:
 - 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, within a three-year rolling timeline.



Project Success vs. Benefits Realization



Project Success - How are we Doing?

(Based on 3-year Rolling Timeline)

Capital Asset	Current Target	FY11 Actual	FY12 Actual	FY13 Actual	FY14 Actual
Construction	90%	84% ^(32/38)	87% ^(40/46)	84% ^(36/43)	82% ^(31/38)
Cleanup	90%	94% ^(32/34)	86% ^(44/51)	84% ^(42/50)	67% ^(16/24)
Combined	90%	89% ^(64/72)	87% ^(84/97)	84% ^(78/93)	76% ^(47/62)
SC	90%	100% ^(15/15)	100% ^(20/20)	100% ^(17/17)	100% ^(17/17)
EM (Const)	90%	0% ^(0/1)	0% ^(0/3)	0% ^(0/3)	0% ^(0/2)
EM (Cleanup)	90%	94% ^(32/34)	86% ^(44/51)	84% ^(42/50)	67% ^(16/24)
NNSA	90%	75% ^(12/16)	81% ^(13/16)	64% ^(7/11)	55% ^(6/11)
Other	90%	83% ^(5/6)	100% ^(7/7)	100% ^(12/12)	100% ^(8/8)



NNSA and EM Project Success

(Let's Dig Deeper)

- From a project (\$) portfolio perspective (last 3 years):
 - NNSA: 92% successful (\$673M/\$728M)
 - EM Cleanup: 75% successful (\$2,583M/\$3,438M)

Contract/Project Management Secondary Performance Metrics	Target	FY12 Actual	FY13 Actual	FY14 Actual	Comments
Certified Earned Value Management (EVM) System: Post CD-3, 95% of projects (TPC > \$20M).	95%	100%	93%	89%	CD-3 is “Approve Start of Construction/Execution.” [Stats: 25 of 28]
Certified Federal Project Directors (FPDs) at CD-1: No later than CD-1, 95% of projects have certified FPDs.	95%	98%	97%	94%	CD-1 is “Approve Alternative Selection and Cost Range.” [Stats: 51 of 54]
Certified FPDs at CD-3: No later than CD-3, 90% of projects have FPDs certified at the <u>appropriate level</u> assigned to projects.	90%	94%	87%	84%	CD-3 is “Approve Start of Construction/Execution.” [Stats: 27 of 32]
Certified Contracting Staff: 85% of the “1102” contracting specialist series will be certified.	85%	85%	95%	93%	Includes those with waivers.

Contract/Project Management Secondary Performance Metrics	Target	FY12 Actual	FY13 Actual	FY14 Actual	Comments
Schedule Compliance, Projects < 5 years Duration: Projects will meet the project schedule metric that follows: from CD-3 to CD-4, projects less than five years in duration will be completed within 12 months of the original CD-3/4 duration.	90%	91%	93%	89%	CD-3 is “Approve Start of Construction/Execution.” CD-4 is “Approve Project Completion.” Based on a three-year rolling timeline. [Stats: 51 of 57]
Schedule Compliance, Projects > 5 years Duration: Projects will meet the project schedule metric that follows: from CD-3 to CD-4, projects greater than five years in duration will be completed within 20% of the original CD-3/4 duration.	90%	40%	100%	100%	CD-3 is “Approve Start of Construction/Execution.” CD-4 is “Approve Project Completion.” Based on a three-year rolling timeline. [Stats: 3 of 3]



GAO High-Risk Series

“Contract (Project) Management”

Historical Issues

GAO designated DOE’s contract management, which includes both contract administration and project management, as high risk due to:

- Inadequate management
- Inadequate oversight
- Lack to hold contractors accountable
- Inconsistently following DOE policies and procedures



GAO High-Risk Series Update (2013)

Contract Management for NNSA and EM

Criteria Agencies Must Meet Before High-Risk Designations Can Be Removed	2013 DOE Has	
	Met Criteria	Not Yet Met Criteria
Demonstrate strong commitment and leadership	<input checked="" type="checkbox"/>	
Demonstrate progress in implementing corrective measures	<input checked="" type="checkbox"/>	
Develop a corrective action plan that identifies root causes, effective solutions, and a near-term plan for implementing the solutions	<input checked="" type="checkbox"/>	
Have the capacity (people and resources) to resolve the problems		<input checked="" type="checkbox"/>
Monitor and independently validate the effectiveness and sustainability of corrective measures		<input checked="" type="checkbox"/>



GAO High-Risk Series Update

(GAO's 2013 Focus in GAO-13-283)

- EM & NNSA major contracts and projects, \$750M and greater
 - Management & Operating (M&O) contracts:
 - Accountability; feds/contractors accountable performance
 - Indirect costs; accuracy, reliability, reasonableness
 - Resources; sufficient people to resolve issues
 - Information; quality lacking for cost-informed decisions
 - Non-major projects:
 - Documentation
 - Achievement of performance targets



GAO High-Risk Series Update (2015)

Contract Management for NNSA and EM

Criteria Agencies Must Meet Before High-Risk Designations Can Be Removed

2015 DOE Has

Met
Criteria

**Partially
Met
Criteria**

Not Yet
Met
Criteria

Demonstrate strong commitment and leadership



Demonstrate progress in implementing corrective measures



Develop a corrective action plan that identifies root causes, effective solutions, and a near-term plan for implementing the solutions



Have the capacity (people and resources) to resolve the problems



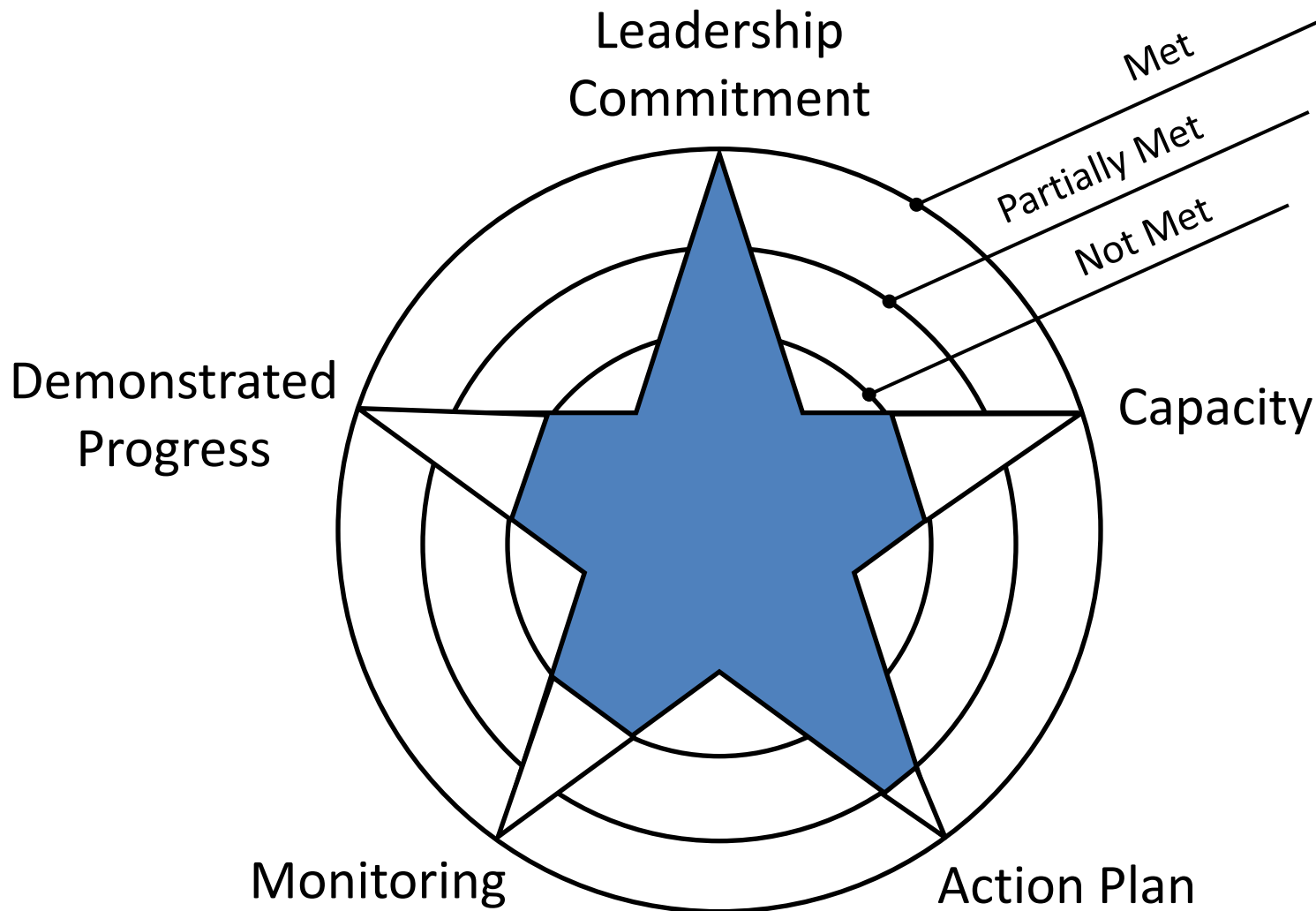
Monitor and independently validate the effectiveness and sustainability of corrective measures





GAO High-Risk Series Update (2015)

Contract Management for NNSA and EM





GAO High-Risk Series Update

(GAO's 2015 Focus in GAO-15-290)

- EM & NNSA major contracts and projects, \$750M and greater
 - New Elements in Write-up --**
 - Cost estimating for projects and “programs” (e.g., life extension program)
 - Analysis of Alternatives (AoA)
 - Financial management: indirect costs & improper payments
 - Accuracy of business systems (e.g., cost accounting, EVMS, etc.)
 - Work for Others (WFO) – now Strategic Partnership Projects (SPP)
 - Unchanged from Previous Report --**
 - Management & Operating (M&O) contracts:
 - Accountability; feds/contractors accountable for performance
 - Indirect costs; accuracy, reliability, reasonableness
 - Resources; sufficient people to resolve issues
 - Information; quality lacking for cost-informed decisions



EM Major Capital Asset Projects (>\$750M)

Projects in the Write-ups

(2013 vs. 2015)

Program	Project Title	2013 Status	2015 Status	
EM	Waste Treatment and Immobilization Plant (WTP) (\$12.3B) – Legacy Project ¹	Red: Scope, Cost & Schedule	Red, steps taken: <ul style="list-style-type: none">• Maturing technology• Shutdown PT & HLW	
EM	Salt Waste Processing Facility (SWPF) (\$2.32B) – Legacy Project	Red: Cost & Schedule	Green, steps taken: <ul style="list-style-type: none">• Revised baseline• Set contract cost cap• Made fee provisional	
EM	Nuclear Facility D&D River Corridor Closure Project (\$2.25B) – Legacy Project	Green	Red, steps taken: <ul style="list-style-type: none">• Revising baseline	
(Post) CD-2 (Pre)	EM K-25 D&D (\$1.1B) – Legacy Project	Red: Cost	Completed	(Post) CD-2 (Pre)
Projects only by reference: “Other three are in various stages of design.”				
EM	Calcine Disposition Project (CDP)	CD-0	No change	
EM	Integrated Facility Disposition Project (IFDP)	CD-1	No change	
EM	Soil and Water Remediation - LANL	CD-1	Cancelled	

Notes:

1. Legacy projects are those baselined prior to the Department’s root cause analysis corrective action plan in 2008.
2. PT – Pretreatment; HLW – High Level Waste; D&D – Decommissioning & Decontamination; CD – Critical Decision



NNSA Major Capital Asset Projects (>\$750M)

Projects in the Write-ups (2013 vs. 2015)

("Programs" & Pre-CD-2 Projects Shown Below the Line)

Program	Project Title	2013 Status	2015 Status
NA	Mixed Oxide (MOX) Fuel Fabrication Facility (\$4.85B) – Legacy Project ²	Red: Cost & Schedule	Red, steps taken: <ul style="list-style-type: none">• Cold standby; now revising baseline• Completed RCA on cost increases
(Post) CD-2			(Post) CD-2
(Pre) NA	Uranium Processing Facility (UPF) (\$4.2-\$6.5B) – Legacy Project	CD-1	Steps taken: <ul style="list-style-type: none">• Maturing design• Build to budget
NA	Chemistry Metallurgy Research Replacement (CMRR) Project (\$2.4-\$2.9B) – Legacy Project	CD-1	Steps taken: <ul style="list-style-type: none">• Revised CD-1• Reduced cost
NA	B-61 Life Extension Program (\$6.5B) ¹	Program vs. Project	Program vs. Project

Notes:

1. GAO stated that a review noted the program will cost approx. \$3.6B more than NNSA's 2011 estimate of \$6.5B.
2. Legacy projects are those baselined prior to the Department's root cause analysis corrective action plan in 2008.
3. One of DOE's major capital asset projects was not mentioned in the GAO Report, the Office of Science's National Synchrotron Light Source II (NSLS II).
4. RCA – Root Cause Analysis; CD – Critical Decision



Why did GAO Scorecard/Assessment Change?

Results Driven – Shift in Focus

1. Continuing cost and schedule growth with EM and NNSA legacy* projects, despite improved project management policies/procedures, and implementation thereof
2. Shift in GAO's focus; widened aperture to M&O contracts, program management, financial management & work for others (WFO)
3. Cost estimating best practices are required for NNSA projects; but guidance for EM projects
4. Analysis of Alternatives (AoA) best practices not required for selecting project alternatives (independent AoA now required)
5. Financial management issues involving indirect costs and improper payments
6. Uncertainty with accuracy on contractor's business systems** (e.g., EVMS – project cost & schedule mgmt control system)

Notes:

* Legacy projects are those baselined prior to the Department's root cause analysis corrective action plan in 2008.

** Business systems include cost estimating, earned value management system (EVMS), material management, accounting, purchasing, and property management.



Areas of Concern

- Legacy capital asset projects (WTP, MOX, etc.)
- Reliability of contractor's business systems (cost estimating, EVMS, material mgmt, accounting, purchasing, and property mgmt
 - Accuracy of the data and information
- Contractor assurance systems (CAS)
- Earned value management systems (EVMS)



Closing Thoughts

- Project management (and contract management) – not easy
- We have improved – we are doing better
- We have the framework in place – We must follow Department's requirements
- Keep charging!



Questions





NNSA and EM Project Success

(Let's Dig Deeper)

- From a project (\$) portfolio perspective (last 3 years):
 - NNSA: 92% successful (\$673M/\$728M)
 - EM Cleanup: 75% successful (\$2,583M/\$3,438M)
- Non-success: Cost or Scope Impact
 - NNSA: 5 of 11: 3 scope
 - EM Cleanup: 8 of 24: 3 scope