



Beyond COVID – Re-Baselining Project Management

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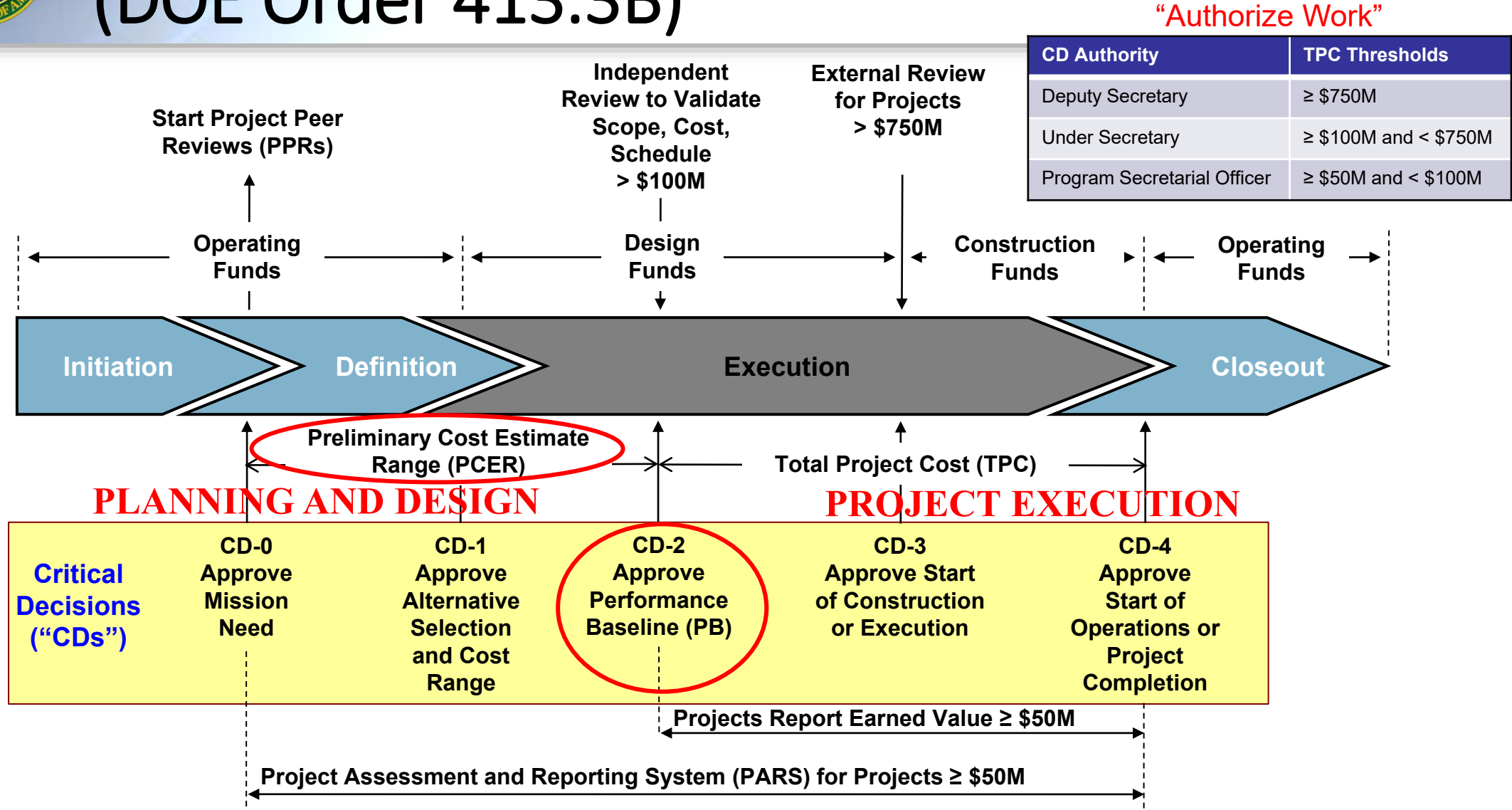


Agenda

1. DOE Project Management (PM) Critical Decision (CD) Process, the Program / Project Portfolio and PM Success Metrics
2. COVID Impacts Update: Re-Baselining Actions -- Baseline Change Proposals (BCP's)
3. DOE Order 413.3B (*Program and Project Management for the Acquisition of Capital Asset Projects*) Impending Update
 - The “Big Rock” Issues Under Consideration
 - Recent '413 Topics Needing Clarification
4. Other Project Management Issues



DOE Project Management (“CD”) Process (DOE Order 413.3B)



Note: For projects greater than \$100M: Independent Cost Estimate (ICE) or an Independent Cost Review (ICR) is required at CD-1, as appropriate; an ICE is required, by statute, at CD-2 and CD-3.



Portfolio Summary by Program

129 Projects – (as of March 2024) – \$122 Billion

Program	Total Project Portfolio		Total On Hold Projects Pre CD-2		Total Active Projects Pre CD-2		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 (Green/Yellow) Status	
	#	(\$M)	#	(\$M)	#	(\$M)	#	(\$M)	#	(\$M)	#	(\$M)	#	(\$M)	#	(\$M)
CR	4	\$1,617.0			1	\$293.0	3	\$1,324.0	3	\$1,324.0					100%	100%
EERE	1	\$224.0			1	\$224.0										
EM	32	\$42,411.0	7	\$2,415.9	14	\$18,995.6	11	\$20,999.5	6	\$1,472.1	2	\$700.0	3	\$18,827.4	73%	10%
NA	41	\$51,183.4	4	\$5,083.0	22	\$33,857.7	15	\$12,242.7	5	\$2,432.9	3	\$2,608.4	7	\$7,201.3	53%	41%
NE	4	\$6,364.2			3	\$6,198.2	1	\$166.0	1	\$166.0					100%	100%
OE	1	\$77.0					1	\$77.0					1	\$77.0	0%	
SC	46	\$20,483.2			29	\$15,406.5	17	\$5,076.8	16	\$4,486.8	1	\$590.0			100%	100%
Total	129	\$122,359.8	11	\$7,498.9	70	\$74,975.0	48	\$39,886.0	31	\$9,881.8	6	\$3,898.4	11	\$26,105.7	77%	35%

Overall Project Assessment

=

EVM Indicators

+

PM Assessment

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

EVM Indicators

- CPI
- SPI
- EACs
- Trends
- Variances
- % Complete
- etc.

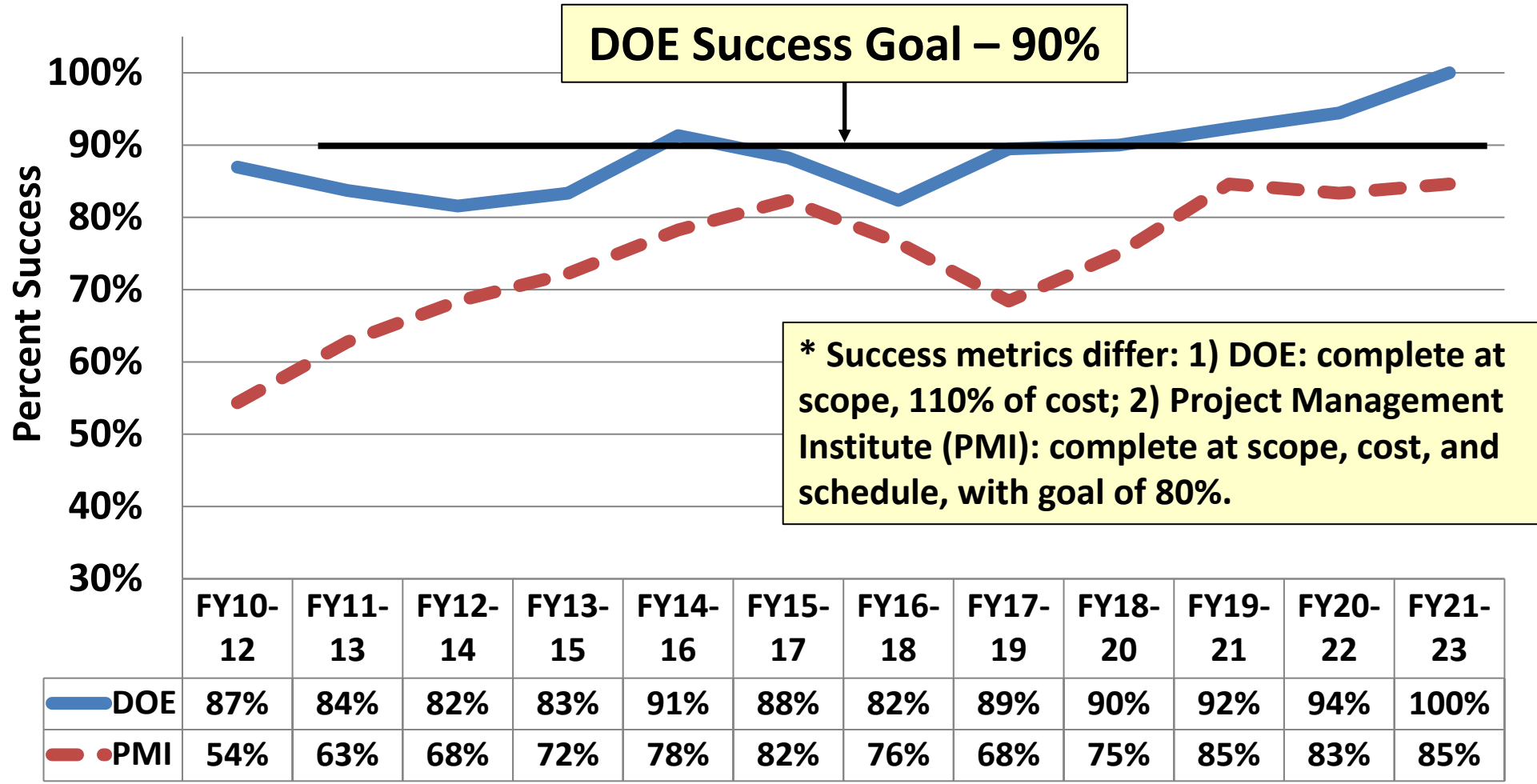
PM Assessment Factors

- Data validity, availability,...
- MR & Contingency Usage
- Reports (ie, monthly, quarterly, ...)
- Reviews (ie, EIR, IPR, ...)
- Communication with the project
- Other Information (ie, DNFSB, ...)

The Performance Baseline (PB) is the collective key performance, scope, schedule, and cost parameters, which are defined for all projects at CD-2 or BCP for a specified funding profile. The PB includes the entire project budget (TPC including fee, other direct costs, and contingency) and represents DOE's commitment to Congress to complete the project within the PB.

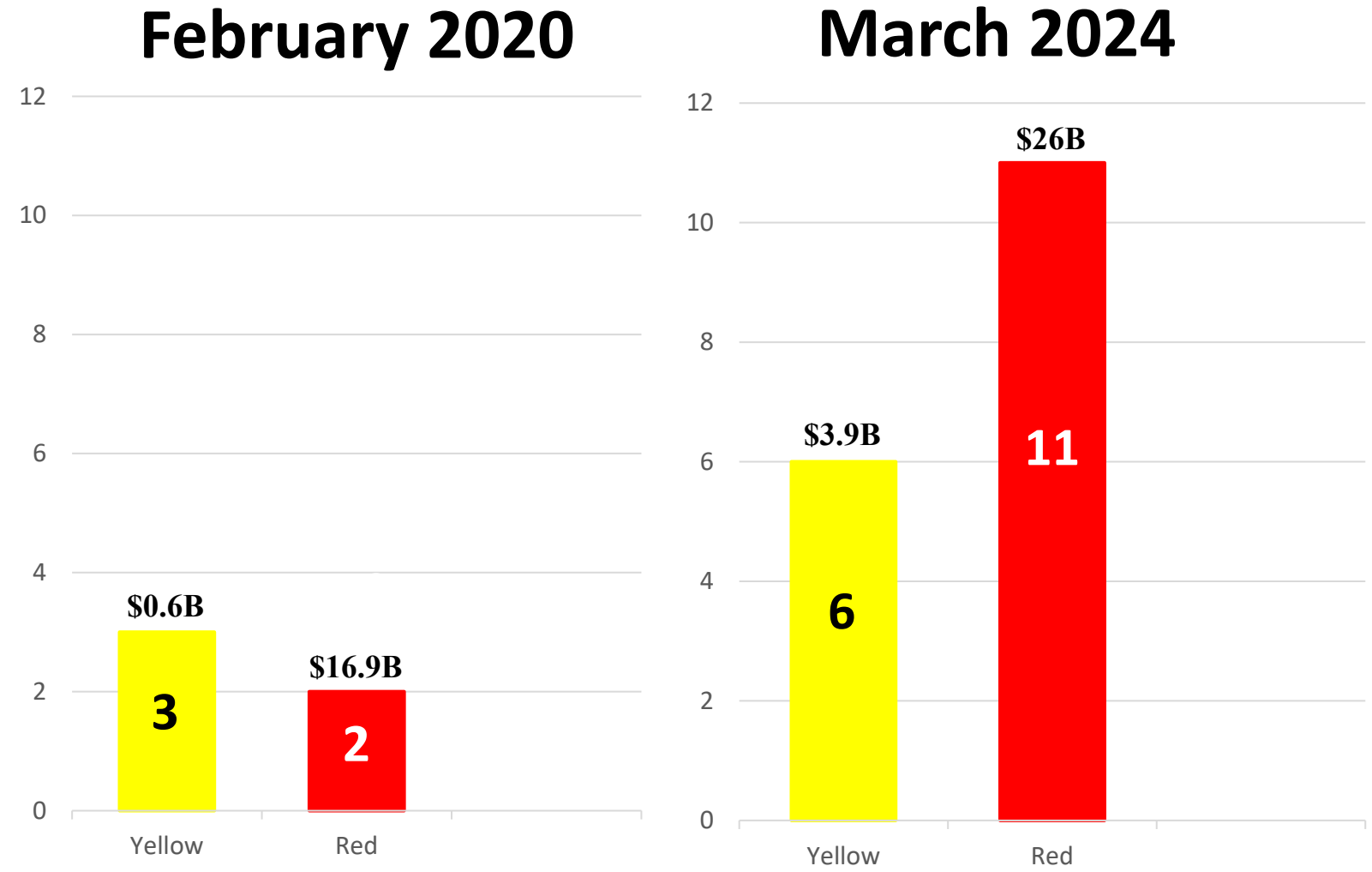


FY23 Project Management Success Metrics – DOE vs. PMI Construction (Based on 3-Year Rolling Timeline)





Pre-COVID vs Post-COVID Projects "At Risk" Snapshot





Re-Baselined Projects: The Year in Review

1. CR, Strategic Petroleum Reserve (SPR) Life Extension-2 (LE-2) Subproject at Bayou Choctaw, LA, TPC from \$355M to \$369M; CD-4 from Feb 2025 to Mar 2025
2. CR, SPR-LE2 at Bryant Bound, TX, TPC from \$315M to \$348M; CD-4 from May 2025 to Oct 2025
3. CR, SPR-LE2 at Big Hill, TX, TPC from \$457M to \$607M; CD-4 from Feb 2025 to Jan 2027
4. EM, Wastewater Treatment Plant (WTP), ORP, TPC from \$16.8B to \$18.5B; CD-4 from Aug 2023 to Sep 2027 (Direct Feed Low Activity Waste (DFLAW) Segment, TPC from \$8.34B to \$8.99B)
5. EM, WIPP Utility Shaft, Carlsbad, TPC from \$197M to \$288M; CD-4 from Dec 2023 to Nov 2026
6. NA, Electrorefining Project, Y-12, TPC from \$108M to \$116M; CD-4 from Dec 2023 to May 2024
7. NA, Calciner Project, Y-12, TPC from \$108m to \$150M; CD-4 from Sep 2023 to Jun 2026
8. NA, UPF Process Support Facilities, Y-12, TPC from \$140M to \$194M; CD-4 Dec 2025 to Dec '26
9. NA, West End Protected Area Reduction (WEPAR), Y-12, TPC from \$160M to \$265M; CD-4 from Jul 2025 to Apr 2028



Impending Project Re-Baselining: Current **Red** Projects

Red Projects – Will Breach the Project's Performance Baseline

1. EM, Outfall 200 Mercury Treatment Facility (\$224M); Y-12, CD-4 Sep 2025
2. EM, K Area Argus (\$79M); SRS, CD-4 Mar 2028; Project will be cancelled upon completion of reduced scope
3. NA, Electrorefining Project (\$116M); Y-12, CD-4 May 2025
4. NA, Uranium Process Facility, Main Process Building (\$4.7B); Y-12, CD-4 Dec 2025
5. NA, Uranium Process Facility, Salvage & Accountability Bldg (\$1.18B); Y-12, CD-4 Dec 2025
6. NA, Calciner Project (\$149.5M); Y-12, CD-4 Jun 2026
7. NA, ECSE Laboratory and Support Infrastructure (\$560M); NNS, CD-4 Dec 2026
8. NA, Technical Area-55 Reinvestment Project, Phase III (\$236M); LANL, CD-4 Jun 2027
9. NA, High Explosive Science & Engineering Facility (\$228M); PTX, CD-4 Nov 2027
10. OE, Grid Storage Launchpad (\$77M); PNNL, CD-4 Aug 2025



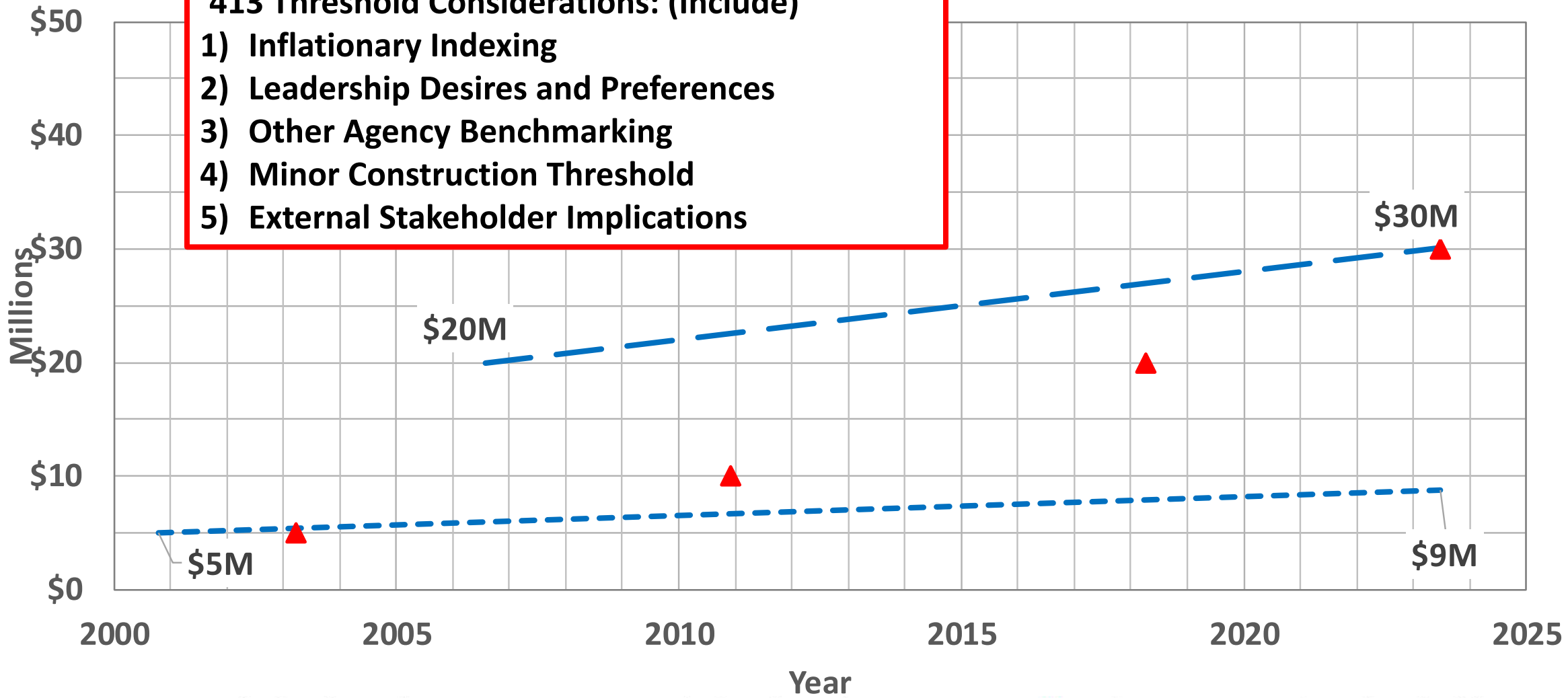
DOE Order 413.3B “2024” Update, To 413.3C Some “Big Rocks” Under Consideration

1. Preliminary Cost Estimate Range (PCER) pre-CD-2 versus Total Project Cost (TPC), at CD-2 and Beyond
2. Critical Decision (CD-3X), Long Lead Procurement and “Site Preparation” Clarification (vice “Early Construction”)
3. Scope Creep (Prevention Thereof) and the CD Process
4. Order Applicability and Monetary Thresholds (Major System Projects, EVMS (Earned Value Management System) Certification, etc.)
5. Streamlining ‘413 Requirements Based on Monetary Thresholds and Other Factors



DOE ORDER 413.3 APPLICABILITY THRESHOLD

- '413 Threshold Considerations: (Include)**
- 1) Inflationary Indexing
 - 2) Leadership Desires and Preferences
 - 3) Other Agency Benchmarking
 - 4) Minor Construction Threshold
 - 5) External Stakeholder Implications





DOE Order 413.3B Proposed “Appendix E”

- Appendix E – A Key Proposal to Streamline
 - Commercial-type projects, < \$100M, No New Technologies, Non-Nuclear, commercial-like
 - Consolidates Critical Decisions and Documents
 - Delegates Project Management Executive (PME) Down
 - Appendix Exercised by the Programs based on Historical Execution Success



Other Project Management Issues

- Project Management: Back to Basics
- Earned Value Management System (EVMS): Certification versus No Certification
- Funding Affordability & Turbulence



Closing Thoughts & Questions



Other PM Enhancements

- “METRR”: Maturity and Environment Total Risk Rating on Earned Value Management Systems (EVMS)
- Project Assessment Reporting System (PARS) Enhancements & “Empower”



The COVID Impacts (The World We Knew Changed)

1. Workforce Challenges:

- Availability – Specific Craft Needs Difficult to Achieve
- Skillset: Journeyman Quality/Productively Lacking
- Employment Motivation Diminished

2. Supply Chain Timelines Protracted:

- Impacting Long Lead Procurements and More
- Basic Construction Supplies / Commodities Unavailable
- Fabrication (i.e., engineered equipment) Protracted

3. Economic Dynamics:

- Inflation and Construction Escalation Rates Exploded



Project Management: DOE COVID Response

1. Workforce Challenges – The Toughest Issue to Address
 - Targeted incentives for critical craft based on site specific labor market (i.e., hiring, relocation, premium pay, housing)
 - Reflect Reduced Productivity in Execution Plans and Risk
 - Balance Construction Workload at Sites
2. Expanded Use of Long Lead Procurement, (CD-3A) Actions:
 - Long lead procurement (i.e., glove boxes, magnets, etc.)
 - Bulk commodities (i.e., electrical components, etc.)
3. Escalation Model Updated ([PM Escalation Report](#))
 - Project and Site specific adjustments; tailored weighting for craft labor, non-manual labor, materials, and subcontracts