DOE PROJECT MANAGEMENT NEWS

Promoting Project Management Excellence

Director's Corner

Let's talk about our "favorite Order", DOE Order 413.3B. The Order provides departmental elements with program and project management direction for the acquisition of capital assets. The goal of the Order is to consistently deliver projects within their original performance baseline (PB), fully capable of meeting mission performance, safeguards and security, and environmental, safety, and health requirements. The Order implements leading practices from across the project management community in both the governmental and commercial sectors. The Order is supported by 20 non-mandatory guides covering a variety of topics ranging from the development of the acquisition strategy to change control and risk management. Together, the Order and guides provide a framework that enables the integrated project team (IPT) flexibility in tailoring departmental processes and leading practices for their individual project. This month's newsletter explores the tailoring process within the Order, what it is and what it isn't. See the article on page 2 for more information and insight on tailoring.

Since late 2018, the Department has been collaborating with Arizona State University, major contractors, and other federal agencies including Department of Defense (DoD), National Aeronautics and Space Administration (NASA) and the Federal Aviation Administration (FAA), in a study to identify the factors that contribute to a mature, effective, and reliable earned value management system (EVMS). The study will also assess the association between the maturity of the EVM System and project outcomes; namely, whether there is a positive correlation between the effectiveness EVMS, its cost, and the success of a project. Additional background on the study is provided on page 3 and a follow-on article next month will discuss the maturity rating and environmental factors in more detail.

As the Department approaches the one-year anniversary of our maximum telework posture, I encourage everyone take a step back and look at your work/life balance. Many of our interactions, which used to be separate – work, friends, and family – now occur in the same space – the video chat. Some insights in coping with the fatigue of the pandemic can be found in the article on page 7.

As a reminder, PMCDP courses are being offered virtually this year. To keep abreast of upcoming course offerings, expand or refresh your knowledge, and earn the CLPs required to maintain your FPD certification, see the training schedule on page 8. And don't forget to reserve your seat! Keep Charging!

Paul Bosco

Project Management professionals – mark your calendars for April 19 – 21, 2022 for the next Project Management Workshop.

While PM had considered holding a workshop in 2021, the ongoing dynamics of the coronavirus pandemic and vaccine rollout continues to make scheduling large, in-person gatherings problematic. We have already made arrangements with the Hilton Washington DC National Mall Hotel at L'Enfant Plaza for the 2022 dates. Watch for further announcements with hotel rates and the agenda in future newsletters. These workshops are an important forum for professional development, sharing professional knowledge, hearing from departmental leadership, and interacting with your peers. We look forward to seeing you next year!

PM Workshop POC – Joe Grealish at joseph.grealish@hq.doe.gov

Project Tailoring
Michael Fenn, Project Analysis Division (PM-20)

What does "tailoring" mean for managing a project through Department of Energy (DOE) Order 413.3B *Program and Project Management for the Acquisition of Capital Assets* (the Order) process? DOE O 413.3B defines tailoring as:

> **"An element of the acquisition process and must be appropriate considering the risk, complexity, visibility, cost, safety, security, and schedule of the project. Tailoring does not imply the omission of essential elements in the acquisition process or other processes that are appropriate to a specific project's requirements or conditions."**

DOE O 413.3B outlines specific requirements and processes that a project must progress through to declare project completion. The process includes specific deliverables and requirements that must be completed to progress to the next critical decision (CD) milestone; and outlines specific tasks and responsibilities for the integrated project team. The Order does, however, allow for some flexibility in accomplishing the deliverables by "tailoring" the process. Tailoring means to apply appropriate level of effort to either combine or accomplish a specific requirement in an expedited manner.

Tailoring is clearly permitted and encouraged in the Order; on page 4 it is discussed as: "Tailoring is necessary for the efficient delivery of projects and should be applied to all projects considering size, complexity, cost, and risks."

A project team should consider the scope, cost, schedule, and project complexity, as well as associated risks, when

In addition, the project team should consider past experience with projects of similar scope and complexity, as well as any lessons learned, in planning a tailored approach for project execution.

When a project team plans to implement a tailored approach, it should clearly be documented in the project execution plan or a stand-alone tailoring strategy document that must be approved by the Project Management Executive. The approval of a tailoring strategy is typically done prior to CD-1. In developing the tailoring strategy, the integrated project team should clearly outline the requirements or deliverables to be tailored, how it will be applied, and rationale for implementing the tailored approach. In addition, the tailoring plan should include any assumptions and risk affecting the tailored approach.

DOE O 413.3B outlines many tailoring approaches:

> **"Tailoring may involve consolidation or phasing of CDs, substituting equivalent documents, graded approach to document development and content, concurrency of processes, or creating a portfolio of projects to facilitate a single CD or AS for an entire group of projects."**

Graded approach means that the level of effort or detail may be reduced or simplified to a minimal degree needed to satisfy requirements. As an example, DOE O 413.3B outlines that "For project reviews, a graded approach could involve fewer technical reviewers or reduced lines of inquiry."

Tailoring also could entail delegated decisions and responsibilities. DOE O 413.3B states that "Where approval authority is not identified, tailoring may be allowed according to other directives or program office policies."

Some common examples of project tailoring include: breaking a large project into smaller discrete projects that yield complete and useful assets[1] and managing them as subprojects; combining CD-2 and 3; integrating a CD-3A approach to acquire long lead procurement of critical equipment; and implementing CD-4A to take early beneficial occupancy for a portion of a project when the remainder of the project will take a much longer period to achieve the Key Performance Parameters established for CD-4.

While DOE O 413.3B is very specific in outlining the required project management processes to follow and completing specific deliverables prior to proceeding to the next CD, the Order does allow for "tailoring" the process for expediency and agility in execution. Please contact your assigned PM Project Analyst should you have any questions on project tailoring and how this can help your project.

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[1] *Useful asset - A useful asset is an economically and programmatically separate segment of the asset or whole asset that may be procured to provide a useful asset for which the benefits exceed the costs, even if no further funding is appropriated. (OMB Capital Programming Guide, Supplement to Office of Management and Budget Circular A-11: Planning, Budgeting, And Acquisition of Capital Assets)*

Improving the Maturity and Environment of the Earned Value Management System (EVMS): Development of an EVMS Rating Index (Part 1)
David Kester, Office of Project Controls (PM-30)

The EVMS integrates the work scope, schedule, and budget with technical, quality, and safety parameters through systematic planning and effective controls during a project's life cycle. The EIA-748 standard defines the qualities and characteristics of a compliant EVMS. It looks to objectively measure the actual performance of work scope and the associated cost and schedule performance against an agreed-to baseline plan. It follows a disciplined means of change control for documenting any changes to the agreed-to baseline plan. The purpose of an EVMS and the requirements of the EIA-748 standard are not opposing narratives. Both expect an intelligently designed and well-implemented EVMS to develop credible plans, schedules and budgets, and to assess emerging project issues in a timely and transparent manner to support informed decision making. Its sole purpose is to position the project (and its team) for success. And while the EVMS (formerly known as Cost/Schedule Control System Criteria) has been leaned on heavily by the government and industry alike since the mid-1960s, it's contributions to a project's success remains a legitimate question by its users.

In November 2018, a research study was initiated by the Office of Project Management (PM) to answer the question of whether an effective/compliant EVMS can contribute to a project's success in meeting its technical, safety, and quality objectives on schedule and budget. Is there a positive correlation between the effectiveness of the EVMS, its cost, and the success of a project? The research study includes the systematic collection and analysis of data related to the field of project management and the implementation of the EVMS following a proven research methodology with the primary goal to design and produce an EVMS Maturity Model and rating index. The envisioned EVMS maturity model, currently referred to as the EVMS Maturity and Environment Total Rating (EVMS METR), assesses the current state of maturity and environment of an EVMS to utilize data and information for those capital asset projects requiring compliance with EIA-748, and for those other projects seeking a reliable project management approach. The EVMS maturity and environment levels consider multiple attributes and factors, leading to a consistent, effective, and reliable EVMS assessment. The research study is scheduled to be complete in December 2021.

"Does an EVMS provide the insights and benefits as advertised, and if so, do they outweigh its costs?"

Research studies typically begin with a question or an inquiry about a specific problem or topic. For subject matter experts (SMEs) studying the effectiveness of EVMS implementation, the question pursued in this research study was spurred by the need to elevate the worth and utility of the EVMS through unbiased scientific research with the assistance of Arizona State University (ASU).

With the active participation of multiple departments and agencies, the envisioned EVMS maturity model considers a broad and diverse range of perspectives on the topic thus enabling its acceptance by federal and non-federal projects alike.

As part of the solution to the inquiry, the research study is developing an automated software tool that enables projects to define EVMS effectiveness/compliance based on expected attributes to calculate a weighted EVMS rating index (much like a Fair Isaac Corporation (FICO) score) that provides insights into implementation outcomes. Much like FICO scores which are calculated from many different pieces of credit data in an individual's credit report, an EVMS rating index will quantify the reliability of management processes and distinct attributes of the EVMS, individually and collectively.

The EVMS METR generates two separate EVMS rating index scores: A maturity score and an environment score, both normalized to a 0-100 scale and then plotted on a matrix. The maturity score coming from the rating index will quantify the effectiveness of each EVMS process and its attributes, whereas the environment score will quantify the conditions in which the EVMS operates, including culture and leadership, team cohesion and competence, operating practices, and resource availability. Figure 1 shows the expected positive correlation between EVMS maturity and the environment in which it operates.

For example, Project X hypothetically records a suboptimal score for having a low maturity driven by a low environment resulting in poor performance outcomes. Conversely, Project Y hypothetically records an optimal score for having a high maturity driven by a high environment resulting in favorable performance outcomes.

Figure 1. Why the Environment Matters
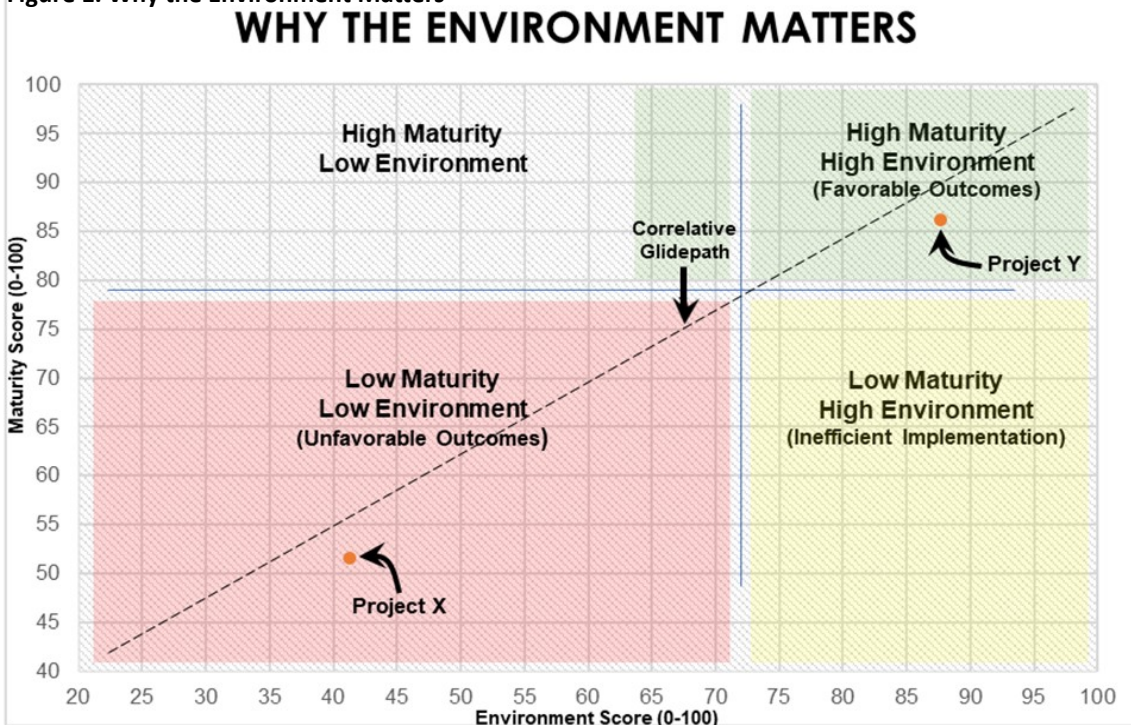
Participants in the EVMS Research include Arizona State University, U.S. Department of Energy (DOE) to include the National Nuclear Security Agency (NNSA), U.S. Department of Defense (DoD) Acquisition Data and Analytics Office, Defense Contract Management Agency (DCMA), National Aeronautics and Space Administration (NASA), National Reconnaissance Organization (NRO), Mission Support Alliance, Lockheed Martin Co, BAE Systems, Washington River Protection Solutions, Los Alamos National Laboratory, Lawrence Livermore National Laboratory, Sandia National Laboratory, Raytheon Corp., CACI International, Fluor, and Jacobs.

Please tune into the April 2021 PM Newsletter for a continuation of this article on the PM sponsored EVMS Maturity Model Research Study by ASU and its initial use in PM-led EVMS reviews.

INTERESTING STATS

The current number of people participating as core members in the research study

33

The total number of people who have responded to research study surveys

294

The total number of research study workshops

8

The total number of people that participated in the research study workshops

103

Chair: Melvin Frank
Director, Project Controls Division
Department of Energy, Office of Project Management

Vice-Chair: Amy Basche
Chair, Energy Facility Contractor Group, Project Delivery Working Group
Chief Operations Officer
Hanford Mission Integration Solutions, LLC

Principal Investigator: G. Edward Gibson, Jr., Ph.D., PE
Professor and Sunstate Chair of Construction Management and Engineering
School of Sustainable Engineering and the Built Environment
Arizona State University

Co-Principal Investigator: Mounir El Asmar, PhD
Associate Professor, Del E. Webb School of Construction
School of Sustainable Engineering and the Built Environment
Arizona State University

Countries (other than the US) being represented in the surveys:

Australia

Greece

Canada

United Kingdom

Congratulations to our newly certified FPDs!

Level I

**Daphne Larson (EM)**

Russell Pascua (EERE)

William Matisiak (SC)

PM Newsletter Launches Series on Project Lifecycle

Rob Stern, Office of Policy and Program Support (PM-50)

In the coming year readers of this newsletter will see a series of articles focused on the Department of Energy Project Lifecycle (see https://community.max.gov/x/MBIkQw) through critical decision (CD) gates.
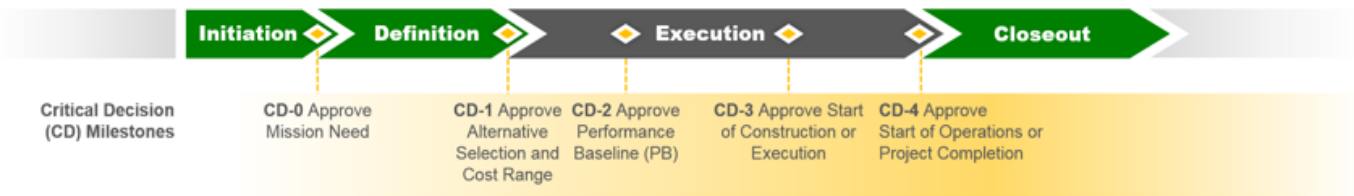
- CD-0 - Approve Mission Need: There is a need that cannot be met through other than material means
- CD-1 - Approve Alternative Selection and Cost Range: The selected alternative and approach is the optimum solution.
- CD-2 - Approve Performance Baseline: Definitive scope, schedule and cost baselines have been developed.
- CD-3 - Approve Start of Construction or Execution: The project is ready for implementation.
- CD-4 - Approve Start of Operations or Project Completion, Project Closeout: The project is ready for turnover or transition to operations, if applicable.

The various requirements to plan and prepare for the five key project milestones will be highlighted with articles sequentially following the lifecycle. The following table shows the planned themes for the coming 5 quarters along with the comparable framework for project phasing from the Project Management Institute (PMI) and the discipline of Systems Engineering. The final column lists courses in the Project Management Career Development Program (PMCDP) curriculum with content relevant to each phase.

Newsletter Editions	DOE Project Phase	PMI Project Phase	Systems Engineering Project Phases	Sample PMCDP Classes
3rd Q FY 2021	Pre-CD-0	Initiation	Define Problem Definition (PD)/ Mission Need (MN)	Program Management and Portfolio Analysis Systems Engineering Project Management Essentials Project Management Systems and Practices in DOE Capital Planning for DOE O 413.3B Projects
4th Q FY 2021	Post CD-0 / Pre-CD-1	Planning	Function & Requirement Analysis / Alternative Evaluation	Strategic Planning Scope Management Baseline Development Acquisition Management for Technical Personnel Federal Budgeting Process in DOE
1st Q FY 2022	Post CD-1/ Pre-CD-2/3	Execution	Validation	Scheduling 24/7 Cost and Schedule Estimation and Analysis Advanced Risk Management Advanced Earned Value Management Techniques
2nd Q FY 2022	Post CD-2/3 Pre-CD-4	Monitoring/ Controlling	Execution w Integration, Risk & Opportunity Management	Project Management Simulation PMCDP Earned Value Management Systems Scope Management Executive Communications
3rd Q FY 2022	Post CD-4 Closeout	Closure	Verification & Closeout	Project Closeout (Coming Soon!)

Recognizing and Managing "Pandemic Fatigue"

Linda Ott, Professional Development Division (PM-40) and Maya Larson, President of Colleague Consulting

As we approach our one-year anniversary of pandemic teleworking, it has become clear that pandemic fatigue is real. "Pandemic fatigue" refers to the exhaustion you may be feeling after months of spending extra time and energy dealing with this new pandemic lifestyle. Technology fluency became an expectation for conducting day-to-day business. A shift to virtual space came with a degree of difficulty and, though we've managed, the exhaustion lingers.

For many, homes became offices and personal and work lives blended more than ever. Continued efforts to balance scheduling challenges, added safety protocols such as wearing masks and social/physical distancing, and seeing business colleagues regularly, but not being able to see friends and family are only surface-level factors impacting workers. Compounding sources of stress, conscious or subconscious, can vary but all lead to fatigue, which may manifest as lack of energy, inability to complete daily tasks, or reduced work performance. In learning, pandemic fatigue triggers screen fatigue which requires extra effort to communicate (hear, understand, speak) and stay engaged in the virtual setting.

Recognizing fatigue alone won't result in resilience, but there are strategies for managing and mitigating contributing stressors. Experts suggest the following:

Set healthy work/life boundaries
The unique work settings during quarantine and remote work can lead to a blurring of boundaries and extended working hours. Do your best to stay focused on work during your work hours and then unplug during your "off" hours to spend time with your family or to rest and recharge.

Create a deliberate workspace
Establish specific and separate spaces for where you work and live, without overlap, if possible. If you can't eliminate distractions entirely, something as simple as a pair of good headphones can help to minimize noise and help you focus.

Reduce the negative effects of screen time
Remember the 20/20/20 rule, which gives our eyes the opportunity to relax. After 20 minutes of screen time, look away at an object that is 20 feet away for a full 20 seconds—and repeat. Be sure to step away from the screen periodically—stand up and stretch or take a quick walk around the block.

Stay engaged in meetings and learning: Be strategic.
Make sure all the technology is working properly. Allow for "ramp up" and "cool down" time. Also, focus on the goal of the meeting or learning—what is it that you need to accomplish? If you're experiencing video fatigue, revisit the first three bullets above to regroup and refocus.

The pandemic has a "silver lining" related to the Project Management Career Development Program (PMCDP) training in that classes have been more accessible across DOE. Granted, not all content optimally translates to a virtual environment and not all learners prefer virtual learning. PMCDP has taken on the challenge to innovate as much possible to enhance the virtual learning experience. We look forward to incorporating in-person training back into the program when it is safe to do so. Until then, resources available to DOE employees are ever-increasing and with your feedback, we can continue to offer training opportunities that address challenges unique to our workforce.

PMCDP FY20 Training Schedule

The training schedule is posted on PM MAX. Save the direct link to the Project Management Career Development Program PMCDP Training Schedule to your favorites: https://community.max.gov/x/BgZcQw

PMCDP is looking at a different and better training schedule for FY2021. In March 2020, PMCDP quickly shifted all courses to virtual delivery in response to COVID-19. Guiding the training schedule and delivery of classes in FY 2021 are the following:

- Understanding it is difficult to predict when air travel and gathering in groups of more than ten will be considered safe, PMCDP will continue to design and develop courses to support the DOE dispersed program and project management workforce.

- Every new and converted course will be delivered online (self-paced), or via an instructor-led distance learning format.

- Course materials, the learning equipment, the visual aids, the audience engagement, and even the time zones will be given careful consideration. For example, audience engagement will go far beyond polling questions and asking participants to agree or disagree by a show of hands (raise your hand icon).

- The courses delivered in webinar format will leverage subject matter experts and master practitioners who will parachute into the delivery to lecture and offer expert knowledge and experience about topics.

Course Title	Dates	Course Level	PMCDP LN Code	Length	CLPs
FY 21 Q2					
PM Simulation	March 1 – 5 10:30-4:30 Daily	Level 2	001029	Webinar	40
Acquisition Management for Technical Personnel	March 8 – 17th (4 Sessions) 12:00-4:00pm Mondays/Wednesday	Level 1	000145	Webinar	16
Scope Management	March 29-April 1 10:30-4:30 Daily	Level 2	001036	Webinar	24

Find up-to-date information and resources anytime! PM·MAX

All PMCDP Course Descriptions and Course Materials can be found in the Course Catalog on
Save the direct link to your favorites: **https://community.max.gov/x/UAT3Rw**

Or download the Interactive Curriculum Map: **https://community.max.gov/x/sQd1Qw**

Have a question, found a bug or glitch in a PMCDP online course, or want to provide feedback?
Submit your questions through **PMCDPOnlineCourseSupport@hq.doe.gov**.

Contact Us!

The Office of Project Management welcomes your comments on the Department's policies related to DOE Order 413.3B. Please send citations of errors, omissions, ambiguities, and contradictions to PMpolicy@hq.doe.gov. Propose improvements to policies at https://hq.ideascale.com.

If you have technical questions about PARS, such as how to reset your password, please contact the PARS Help Desk at PARS_Support@Hq.Doe.Gov. And as always, PARS documentation, Frequently Asked Questions (FAQs) and other helpful information can be found at https://pars2oa.doe.gov/support/Shared%20Documents/Forms/AllItems.aspx.

The current PARS reporting schedule is located in PM-MAX at the following link https://community.max.gov/x/m4lIY.

Need information to apply for FPD certification? The Certification and Equivalency Guidelines (CEG) can be found here https://community.max.gov/x/IQd1Qw.

Can't put your finger on a document or information you were told is available on PM-MAX? Looking for information on DOE Project Management? Submit your questions and queries to PMWebmaster@doe.gov. Check out the links below for information related to FPD Certification and Certification and Equivalency Guidelines.

To reach the Professional Development Division team:

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If you would like to contribute an article to the Newsletter or have feedback, contact the Editor at Linda.Ott@hq.doe.gov.