PROJECT MANAGEMENT CAREER DEVELOPMENT PROGRAM

Pathways to Project Success

Donut 'Hole' Funding Picture

Thomas D. Bruder, PE, CCE, CFM

DOE executes a diverse portfolio of capital asset projects supporting efforts from scientific discovery to environmental stewardship. The vast majority of these projects are of such size and magnitude that they must be programmed, planned, budgeted, and executed over multiple fiscal years. Incremental funding allows a degree of flexibility, but requires more vigilance to adhere to the performance baseline (PB). The funding profile is an important element in the execution of a multi-year project in accordance with its established PB. As such, any changes to the approved funding profile negatively impacting the project must be endorsed by the project's Acquisition Executive per DOE Order 413.3B (the Order).

Selecting an appropriate acquisition strategy, establishing a reasonable PB, and developing a realistic project execution plan that can be supported by our stakeholders cannot be stressed enough, particularly when our Nation is in the throes of significant budget turbulence. Nothing is more frustrating or embarrassing when project execution is stymied due to the lack of funding.

Following the guidance of DOE O 413.3B can help avoid these potential pitfalls. Appendix C of the Order offers advice on project funding, addressing both full and incremental funding. Full funding within the same appropriation year is the preferred alternative as it eliminates the risks mentioned above. This is highly encouraged for capital asset projects with a total project cost of less than \$50M.

A project's funding profile should be developed to support the optimum project schedule in light of constraints, regulatory or otherwise, and to fully fund the project when appropriate. It is incumbent on the federal project director to work with the program office (sponsor) to develop and protect the project's funding profile.

Topics, please...

The next DOE Project Management Workshop is scheduled for April 3 & 4, 2012 in Alexandria, VA. We want to know what you, our FPDs, want to see as topics for speakers and panel discussions. Please send your ideas and requests to <u>DOEPMWork-</u> <u>shop@hq.doe.gov</u>, or call John Makepeace at 202-586-5326 if you would like to talk through an idea.

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Project Maturity Progress

Follow-up Article to "Signs of Project Maturity"

Rick Elliott, PE, CCE, CFM, CEM

What does "project maturity" mean, and how do we recognize a mature project when we see one? For purposes of this article, project maturity will be defined as having attained a "desired advanced state" characterized by a combination of discrete physical measurements and behavioral characteristics. Implicit in this definition is the understanding that to be considered mature, a project must accomplish more than merely "getting older."

Physical progress is an easily recognizable indicator of project maturity. DOE uses what is commonly known as a sequential, stage-gated decision making process to manage capital asset projects. Each sequential gate is referred to as a Critical Decision (CD) and is approved by the Acquisition Executive. Specific criteria must be addressed for a project to pass through the gate to the next stage. Achievement of those criteria, documented by written deliverables, signifies that a project has reached a certain stage in its development. At project inception, represented by **CD-0**, *Approve Mission Need*, the level of project maturity is comparatively low, and requires at a minimum a mission need statement document. On the other hand, **CD-1**, *Approve Alternative Selection and Cost Range*, is characterized by the completion of documents including a preliminary project execution plan (PEP), acquisition strategy, risk management plan, integrated safety management plan, and conceptual design. Further, project maturity is exhibited by designation of a federal project director and establishment of a cost range for the preferred alternative. Collectively, these "building blocks" signify the accumulation of a significant body of project knowledge extending to both its technical details and to the organizational framework used for execution.

CD-2, *Approve Performance Baseline*, is the next step in the growth curve marking a transition from planning to project execution. At this point, the project goals and objectives are well defined and documented as written key performance parameters. Because the performance baseline is "locked in" at this stage of a project, considerable time and effort are required to ensure the project is "mature enough" to proceed. In this context, project maturity refers to a finalized and documented scope of work, and to a complete engineering design such that minor technical issues will not jeopardize the viability of the project. For projects with a total project cost of over \$100 million, a project definition rating index (PDRI) is conducted. The PDRI tool provides a quantitative measurement of the completeness (i.e., maturity) of a project's scope. For major system projects (>\$750M), a technology readiness assessment and a technology maturation plan are also required. Other indicators of project maturity at CD-2 include completion of environmental impact and hazard analyses, establishment of a performance baseline, and utilization of an Earned Value Management System (EVMS). Also, the PEP is finalized at this stage of the project.

During **CD-3**, *Approve Start of Construction* (aka project execution), the "desired advanced state" is completing the project on time and within budget and satisfying its key performance parameters. Using the contractor's performance measurement baseline, quantitative EVMS data are utilized to

continuously measure and monitor cost and schedule performance against the baseline. From a purely physical perspective, a project naturally "matures" as work is accomplished and the project approaches physical completion.

Project maturity assumes an additional meaning during the execution phase. The level of maturity is directly linked to the behavior and performance of the project team. The front-end planning work preceding project execution establishes management structures, reporting systems, and procedures designed to be used dynamically and interactively. The extent of full project team maturity depends, in large part, on the extent the team embraces and effectively utilizes these tools. A mature project team can be identified as having the following characteristics: (1) a PEP is being followed and updated as necessary; (2) the federal and contractor staffs are actively involved in change management at a project and contract level; (3) federal and contractor project controls organizations are producing accurate and meaningful reports serving as the basis for decision making; (4) the project schedule is current and relevant; and (5) the risk register is updated regularly and risks are being actively managed in accordance with the risk management plan. In short, is the project team actively following the project execution "script" written during the planning phase, and does it have confidence in the script? If not, is the script being appropriately revised?

In summary, project maturity is manifested through a combination of objective criteria and more subjective behavioral characteristics. The objective criteria are generally linked to physical accomplishments during the various phases of a project, including numerous deliverables during the upfront planning stage and the completion of design and construction work during the execution phase. The behavioral characteristics are determined by the extent the project team has embraced the overall plan of execution and has learned to effectively use the project management tools and systems provided.

Federal Project Director Corner

The Certification Review Board certified the following individuals:

Office of Environmental Management:

- Dinesh C. Gupta, Germantown, MD Level I
- Elver D. Robbins III, Richland, WA Level I
- William R. Watson, Idaho Falls, ID Level I

National Nuclear Security Administration:

John M. Herrera, Amarillo, TX – Level I



PMCDP Course Schedule

Start	End	Course	CEUs	Location	PMCDP Info	CHRIS Code/ Session #	Registration Restrictions
November 2011							
11/15/11	11/17/11	Systems Engineering	21	New Orleans, LA (Strategic Petroleum Reserve Office)	Level 3 Elective	001049/0009	None
11/15/11	11/17/11	Project Leadership/ Supervision	22.5*	Los Alamos, NM (Canyon School)	Level 2 Core	001045/0027	Per Betty Warrior ¹
11/30/11	12/1/11	Capital Planning for DOE O 413.3B Capital Asset Projects	14*	Los Alamos, NM (Los Alamos Site Office)	Level 1 Elective	002152/0003	None
December 2011							
12/5/11	12/8/11	Federal Budgeting Process in DOE	28*	Richland, WA (HAMMER)	Level 2 Elective	001034/0015	None
12/6/11	12/8/11	Performance-Based Management Contracting	21*	Aiken, SC (Savannah River)	Level 1 Core	001951/0010	None
12/12/11	12/14/11	Facilitating Conflict Resolution	21	Los Alamos, NM (Canyon School)	Level 3 Elective	001558/0009	Per Betty Warrior ¹
12/13/11	12/15/11	Contract Administration for Technical Representatives	21*	Washington, DC (Headquarters)	Level 1 Core	000058/0177	None
January 2012							
1/10/12	1/12/12	Scope Management Baseline Development	21*	Richland, WA (HAMMER)	Level 2 Core	001036/0015	None
1/10/12	1/13/12	Advanced Risk Management	25*	Los Alamos, NM (Canyon School)	Level 3 Core	001042/0015	None
1/18/12	3/9/12	Project Management Systems	60*	Oak Ridge, TN	Level 1	001024/0040	None
Onsite: 2/14-2/16		& Practices in DOE		(UR Federal Building)	Core		
1/24/12	1/26/12	Contract Administration for Technical Representatives	21*	Pittsburgh, PA (NETL)	Level 1 Core	001028/0010	None
1/24/12	1/26/12	Facilitating Conflict Resolution	21	Aiken, SC (Savannah River)	Level 3 Elective	001558/0008	None
1/24/12	1/27/12	Managing Contract Changes	28	Albuquerque, NM (Alb. Operations Center)	Level 1 Core	002102	None
1/31/12	2/2/12	Project Leadership/ Supervision	22.5*	New Orleans, LA (Strategic Petroleum Reserve Office)	Level 2 Core	001045/0025	None

For the corresponding classes, registration is restricted to the designated organization unless prior arrangements are made with the following individual: ¹Contact Betty Warrior, 505-245-2127, <u>betty.warrior@hq.doe.gov</u> **Note:** Asterisked courses are PMI registered, so they carry the same number of PDUs as CEUs.

For a step-by-step guide to register for PMCDP courses in CHRIS/ESS, please visit the PMCDP website: http://energy.gov/management/downloads/pmcdp-course-registration-process

Question of the Month

Linda Ott, MA Adult Ed, PMP

Question: I find it useful to have the PMCDP courses listed in the newsletter and on the website, but I still don't know how to register for them. What do I do?

Answer: To get a seat in PMCDP classroom courses, you need to register in DOE's Corporate Human Resource Information System (CHRIS) system through Employee Self Service (ESS). Before you login to CHRIS, make sure you know the PMCDP Course Code and Session # because this will make registering easier; the codes are listed on the PMCDP training schedule. Registration is a six step process that can be challenging at first. To help you, PMCDP has developed a job aid with detailed instructions. To view it, go to the PMCDP website <u>http:// energy.gov/management/downloads/pmcdp-course-registration-process</u> or click on the link at the bottom of the training schedule. I encourage you to use the job aid and if you still have problems, contact the PMCDP team.

Once you've completed the steps, your request will be routed to the approving officials. Once all have approved, your status will change to either "enrolled," meaning you have a seat in the class, or "session waitlist," meaning the class is full. If your approval routing was not successful, you'll receive the message "denied by manager." Once you know you have a seat in the class, you can arrange your travel logistics to get to the class.

You must manage your training requests, so if you haven't received an electronic enrollment notice, check to make sure the request is not hung up in the approval routing. To do this, login to CHRIS and check on the status of the training request. One more thing: If you are not able to attend the training, you must inform the training coordinator and ask to be removed from the class. If you don't do this, you are noted as a no-show on the class roster and if the class is full, you may deny a waitlisted person the opportunity to attend.

NEW COURSE! Managing Contract Changes added to PMCDP Level I Curriculum

Effective January 1, 2012, *Managing Contract Changes* will become a Level I core course. The four-day course is offered to both Contracting Officers (COs) and Federal Project Directors (FPDs) to establish the important relationship that needs to exist for project and contract management success. The course was developed in response to the Root Cause Analysis Corrective Action Plan goal to improve contract and project management alignment and encourage the dialog between COs and FPDs throughout the project history. Ideally, COs and FPDs cooperate to facilitate project changes on complex capital asset projects through effective management of contract modifications and change orders. The course includes discussions of DOE's historical and current contracting environment, authorities for contract modifications, and the various contract provisions and legal doctrines defining and limiting the ability of the government to change contracts. Additionally, the course examines the doctrine of constructive change, assesses potential differences between project management changes and contract changes, and lists the things DOE senior level contracting and program officials can do to improve the effectiveness of the change management process. Small group exercises featuring realistic DOE scenarios are used to illustrate important points discussed during the course.

Full PMCDP Course Schedule

For the full listing of FY2012 classes, visit the PMCDP website: http://energy.gov/management/downloads/pmcdp-course-schedule



PMCDP Requirements Changes

This is a reminder that the certification requirements are changing. If you want to be held to the current requirements, your Program must submit your package for review to PMCDP no later than December 31, 2011. Please note, if the Certification Review Board does not evaluate your package within one year, you will be required to adhere to all new requirements.

Questions or Comments?

Please email general questions and comments to PMCDP.Administration@hq.doe.gov, or visit our website: http://energy.gov/management/office-management/operational-management/project-management-careerdevelopment-program

For specific information, please contact one of the following individuals:

- Linda Ott, PMP, MA Adult Ed PMCDP Team Lead, Linda.Ott@hq.doe.gov
- Victoria C. Barth, MA ISD Course Schedule, Certification Review Board information, Certification and Equivalency Guidelines: Victoria.Barth@hq.doe.gov
- Peter J. O'Konski, P.E., CEM, PMP, LEED AP, CCE, CFM, Director, Office of Facilities Management and Professional Development: Peter.OKonski@hq.doe.gov