

NNSA POLICY

NAP 413.5

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PROGRAMMATIC COST ESTIMATING



NATIONAL NUCLEAR SECURITY ADMINISTRATION
Management and Budget

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OFFICE OF PRIMARY INTEREST (OPI):
Management and Budget

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PROGRAMMATIC COST ESTIMATING

1. **PURPOSE.** To establish the roles and responsibilities for programmatic cost estimating activities within the National Nuclear Security Administration (NNSA).
2. **AUTHORITY.** 50 United States Code (U.S.C.) 2402(d) provides the Administrator authority to establish NNSA-specific policies, unless disapproved by the Secretary.
3. **CANCELLATION.** NNSA Advance Change Directive (ACD) 413.1, *Centralizing Cost Estimating Activities in the National Nuclear Security Administration*, dated December 09, 2019.
4. **APPLICABILITY.**
 - a. **Federal.** Applies to federal employees.
 - b. **Contractors.** Does not apply to contractors.
 - c. **Equivalency:** In accordance with the responsibilities and authorities assigned by Executive Order 12344, codified at 50 U.S.C. Sections 2406 and 2511, and to ensure consistency throughout the joint Navy/DOE Naval Nuclear Propulsion Program, the Deputy Administrator for Naval Reactors (Director) will implement and oversee requirements and practices pertaining to this Directive for activities under the Director's cognizance, as deemed appropriate.
5. **BACKGROUND.** As part of the planning, programming, budgeting, and evaluation (PPBE) process realignment, the NNSA Administrator centralized NNSA's cost estimating responsibilities within Management and Budget (NA-MB) and the Office of Cost Estimating and Program Evaluation (NA-1.3). NA-MB was empowered to lead programmatic cost estimating and NA-1.3 to continue to lead independent cost estimating. This NAP focuses on programmatic cost estimating, including roles and responsibilities, across NNSA in three major areas: the PPBE process, stockpile modernization programs, and capital acquisition projects governed by DOE O 413.3B, *Program and Project Management for the Acquisition of Capital Assets* or successor directives. The centralizing of NNSA programmatic cost estimating responsibilities established:
 - NA-MB's role in maintaining cost estimating and related functional expertise and providing high quality analytical products, modeling tools, data, and training in support of programmatic decisions. NA-MB works in close coordination with Program and Project Leads in developing cost estimates that are accurate, defensible, and consistent. Program offices maintain sole ownership over programmatic decision making, and Account Integrators over budgeting decisions.
 - The Account Integrator role to manage portfolio risk within NNSA's major mission areas. The Account Integrator for each major appropriation (Weapons Activities, Defense Nuclear Nonproliferation, and Federal Salaries and Expenses) is responsible

for integrating and prioritizing their portfolio, and other duties as outlined in NAP 130.1B, *Planning, Programming, Budgeting, and Evaluation (PPBE) Process* or successor directive.

6. **REQUIREMENTS.** Programmatic cost estimating products and expertise must be provided to support Account Integrators, program elements, and field offices in the PPBE and NNSA's two acquisition processes:
 - a. Capital acquisitions governed by DOE O 413.3B or successor directives.
 - b. Stockpile modernization programs managed under the Phase 6.X acquisition process, as well as the traditional weapon's acquisition life cycle, hereafter referred to as the Phase X process.
7. **RESPONSIBILITIES.**
 - a. **Associate Administrator for Management and Budget.**
 - (1) Provides a Federal Cost Estimating Lead (FCL) to support the Federal Program Office (FPO) for Stockpile modernization programs and the Federal Project Director's (FPD) Integrated Project Team (IPT) for projects governed by DOE O 413.3B or successor directives.
 - (2) Upon request, provides subject matter experts (SMEs) either directly or through the Cost Estimating Analysis Group (CEAG) support in areas such as cost estimating guidance and reviews.
 - (3) Upon request, provides other cost estimates to support Federal Program Manager (FPMs), FPDs, or NNSA strategic planning such as the Stockpile Stewardship and Management Plan (SSMP).
 - (4) Upon request, provides cost estimating products and expertise throughout the PPBE process in areas such as planning studies, business case analyses, executability analyses, and capital asset projects not falling under the category of line-item construction, major items of equipment, and operating expense projects.
 - (5) Upon request, provides programmatic cost estimating and related analytical training to stakeholders, analysts, and program management teams.
 - b. **Federal Cost Estimating Lead (FCL).**
 - (1) Develops program cost estimates (PCEs) for stockpile modernization programs and DOE O 413.3B projects in close coordination with the FPM or FPD.

- (2) In close coordination with program offices, provides cost estimating support throughout the reconciliation process between the PCE and the ICE. This includes presenting the PCE cost methodology, investigating areas of significant PCE/ICE differences, and presenting findings to decision makers.

c. Federal Program Manager (FPM).

- (1) Leads requirements, scope, schedule, risk, and budget for all projects and programs as outlined in SD 452.3-2, *Phase 6.X Process*, SD 413.3, *Program and Project Management for the Acquisition of Capital Assets*, and NAP 413.2, *Program Management Policy* or successor directives.

Exception: Between conceptual design and Critical Decision (CD)-4 of projects governed by DOE O 413.3B or successor directives, leads the project's requirements and scope as outlined in SD 413.3 or successor directives.

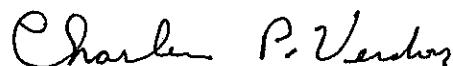
- (2) Provides or coordinates requirements and supporting documentation for cost estimate development.
- (3) Leads, reviews, and approves the PCE for all projects and programs except for capital acquisition projects between conceptual design and CD-4.
- (4) Leads, with support from NA-MB, the PCE reconciliation efforts with the ICE team.
- (5) Recommends a risk-informed budget consistent with NAP 130.1B or successor directive.

d. Federal Project Director (FPD).

- (1) Leads the project's schedule, risk, and budget for capital acquisition projects governed by DOE O 413.3B or successor directives in accordance with SD 413.3 or successor directives.
- (2) Provides or coordinates supporting documentation for cost estimate development.
- (3) Provides draft programmatic cost estimates and supporting documentation to the members of the IPT.
- (4) In coordination with the FPM, leads, reviews, and approves the PCE for capital acquisition projects between conceptual design and CD-4.
- (5) Leads reconciliation efforts with the ICE team for capital acquisition projects between conceptual design and CD-4.

- (6) Recommends a risk-informed budget for capital acquisition projects between conceptual design and CD-4, consistent with NAP 130.1B or successor directive
 - e. NNSA Elements. Conduct or request NA-MB to conduct independent government cost estimates (IGCEs) for contracts. The program office must provide the IGCE to the Office of Acquisition and Project Management (NA-APM) for contract actions.
8. DEFINITIONS. See Appendix A.
9. ACRONYMS. See Appendix B.
10. REFERENCES.
 - a. DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, dated April 12, 2018.
 - b. NNSA NAP 413.3A, *Responsibilities for Independent Cost Estimates*, dated April 30, 2021.
 - c. NNSA NAP 413.2, *Program Management Policy*, dated February 4, 2019.
 - d. NNSA SD 413.3, *Program and Project Management for the Acquisition of Capital Assets*, dated May 18, 2021.
 - e. NNSA SD 452.3-2, *Phase 6.X Process*, dated January 19, 2017.
 - f. NAP 130.1B, *Planning, Programming, Budgeting, and Evaluation (PPBE) Process*, dated May 25, 2021.
11. CONTACT. Associate Administrator for Management and Budget, 202-586-0101.

BY ORDER OF THE ADMINISTRATOR:



Charles P. Verdon
Acting Administrator

1. Appendix A: Definitions
2. Appendix B: Acronyms

APPENDIX A: DEFINITIONS

1. Analysis of Alternatives (AoA). A required study prior to Critical Decision (CD)-1 for projects governed by DOE O 413.3B, *Program and Project Management for the Acquisition of Capital Assets* or successor directives, prior to CD-1. NNSA AoAs are performed by Management and Budget (NA-MB) in close coordination with program offices for the purpose of identifying viable alternatives to address a mission capability gap and providing trade-offs to decision makers in areas such as cost, schedule, risk, and effectiveness to support a down-select acquisition decision.
2. Capital Asset Acquisition Project. A project with defined start and end points required in the acquisition of capital assets and governed by DOE O 413.3B or successor directives. The project acquisition cost of a capital asset includes both its purchase price and all other costs incurred to bring it to a form and location suitable for its intended use. It is independent of funding type. It excludes operating expense funded activities such as repair, maintenance, or alterations that are part of routine operations and maintenance functions.
3. Cost Estimating Analysis Group (CEAG). NNSA's organization aimed at improving programmatic cost estimating capabilities across the nuclear security enterprise. It is chaired by NA-MB and includes representation of cost estimating professionals from all the Management and Operating (M&O) contractors within NNSA.
4. Conceptual Design. The conceptual design process requires a mission need as an input. It is the exploration of concepts, specifications, and designs for meeting the mission needs, and the development of alternatives that are technically viable, affordable, and sustainable. The conceptual design provides sufficient detail to produce a more refined cost estimate range and to evaluate the merits of projects governed by DOE O 413.3B or successor directives.
5. Federal Cost Estimating Lead (FCL). NA-MB's primary point of contact to the Federal Program Manager (FPM) / Federal Program Director (FPD) on all cost estimating issues, including the program cost estimate (PCE) and reconciliation efforts with the independent cost estimate.
6. Independent Cost Estimate (ICE). A cost estimate prepared by an organization independent from the government line manager's authority and the contractor organization responsible for the project or program, using the same detailed technical and procurement information to develop the program or project technical and procurement information to develop the program or project estimate in accordance with Government Accountability Office (GAO) best practices. NNSA's ICEs are performed by the Office of Cost Estimating and Program Evaluation (NA-1.3) or the DOE Office of Project Management Oversight and Assessments (DOE-PM).
7. Independent Cost Review (ICR). An evaluation of a program's or project's cost estimate that examines the reasonableness of the estimate quality, assumptions, and risks. The

ICR is prepared by an organization independent from the government line manager's authority and the contractor organization responsible for the project or program. NNSA ICRs are performed by NA-1.3 or DOE-PM.

8. Independent Government Cost Estimate (IGCE). An estimate performed to support contract negotiation. The estimate must be prepared in such detail as though the government were competing for award.
9. Phase X Process. Provides the framework for nuclear weapons activities such as nuclear weapon design, development, production, sustainment, and dismantlement.
10. Phase 6.X Process. A subset of the Phase X process which provides a framework to conduct and manage refurbishment activities for existing weapons. It makes the maximum use of the established structure, flow, and practices from the traditional phase process.
11. Planning, Programming, Budgeting, and Evaluation (PPBE) Process. Established procedures to ensure that the PPBE activities of the NNSA comply with sound financial management principles.
12. Program Cost Estimate (PCE). A cost estimate led by a programmatic organization within the government line manager's authority. PCEs are generated by NA-MB in close coordination with the program office. The PCE includes a cumulative distribution function (known as an *S-curve*) reflective of known or anticipated uncertainties and risks. PCEs are approved by the respective Program or Project Leads, and then Account Integrators or Project Management Executives (PMEs) select budget positions that balance risk across their portfolios.

APPENDIX B: ACRONYMS

a.	<u>ACD</u>	Advance Change Directive
b.	<u>AoA</u>	Analysis of Alternatives
c.	<u>APM</u>	Acquisition and Project Management
d.	<u>CEAG</u>	Cost Estimating Analysis Group
e.	<u>CD</u>	Critical Decision
f.	<u>DA</u>	Deputy Administrator
g.	<u>FCL</u>	Federal Cost Estimating Lead
h.	<u>FPD</u>	Federal Project Director
i.	<u>FPM</u>	Federal Program Manager
j.	<u>FPO</u>	Federal Program Office
k.	<u>FYNSP</u>	Future-Years Nuclear Security Program
l.	<u>ICE</u>	Independent cost estimate
m.	<u>ICR</u>	Independent cost review
n.	<u>IGCE</u>	Independent government cost estimate
o.	<u>IPT</u>	Integrated Project Team
p.	<u>PCE</u>	Program cost estimate
q.	<u>PM</u>	Office of Project Management Oversight and Assessments
r.	<u>PME</u>	Project Management Executive
s.	<u>PPBE</u>	Planning, Programming, Budgeting, and Evaluation
t.	<u>SME</u>	Subject matter expert
u.	<u>WA</u>	Weapons Activities