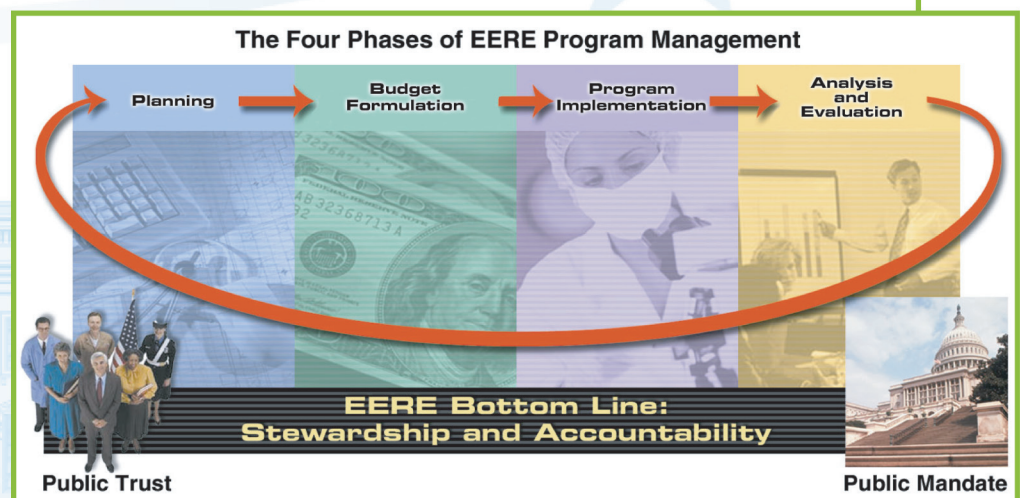


# EERE PROJECT MANAGEMENT GUIDE

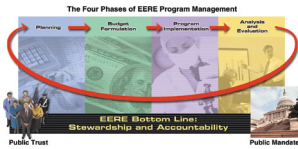
A REFERENCE MANUAL FOR  
PROJECT MANAGEMENT  
AND THE EERE PROJECT  
MANAGEMENT CENTER

April 2005



U.S. Department of Energy  
Energy Efficiency and Renewable Energy

DISCLAIMER: This is the initial issue of the EERE Project Management Guide. In your review you will undoubtedly come across definitions that need to be refined, or portions of the Appendices that need further development. And, it is expected that suggestions will be made to further strengthen the overall structure of the document. Rather than continue to enhance the document, it was decided that the Guide needed to be distributed to a wider audience in order to gain input from those who will actually use the guide. As time permits, critique the guide and funnel your suggestions to your management, or to Barbara Manley, DOE HQ EERE or Lisa Jorgensen, Golden Field Office. Early in FY06, efforts will be initiated to further refine the document. In reality, as the PMC evolves and the document is refined, its interactive role on the PMC website will be used to maintain a living document with routine and continual improvement. Hard copy versions will not be routinely maintained.



## i. Executive Preface

In September 2003, the Office of Energy Efficiency and Renewable Energy (EERE) established the EERE Project Management Center (PMC), a dedicated field implementation capability with the sole purpose of providing common comprehensive management services (i.e., project, financial, legal, procurement) for all EERE Programs. The PMC is a virtual organization that consists of the Golden Field Office (GO), six Regional Offices (ROs), the National Energy Technology Laboratory (NETL), and the State Technologies Advancement Collaborative (STAC). The PMC became fully functional in October 2004.

The PMC takes advantage of the resources and capabilities at GO, ROs, NETL, and STAC to manage a specific set of projects using common business practices. This framework also affords EERE the flexibility to deal with uneven workflow. Each PMC component is assigned projects in defined elements of the 11 EERE Programs as well as functional responsibilities for support to other PMC components.

With the advent of the PMC, EERE employees need to be kept apprised of the EERE basic project management approach and the specific operations of the PMC. In this regard, they need job aids and/or training to use the services of the PMC properly. This document is intended to meet those needs. It is a handy yet comprehensive PMC user and service guide or “owner’s manual.” It lays out the PMC’s purpose and the EERE one way of doing business in terms of pertinent functions, processes, operating cycles, business roles and responsibilities, and rules of engagement. It provides general guidance with links and/or references within the PMC Web site ([www.eere-pmc.energy.gov](http://www.eere-pmc.energy.gov)) to more detailed and specific processes and procedures as well as governing regulations and guidelines for procurement, financial management, and project management.

This Guide is organized around the four program and project management cycle phases of planning, budget formulation, implementation, and evaluation. To the extent practicable, it parallels and links to the EERE Program Management Guide and the EERE Program Management Guide “Quick Reference.” Additionally, these guidelines will become the baseline for the continuous improvement of all EERE RDD&D project management activities.

As the PMC evolves, it is expected that standard processes and procedures will be mutually developed by the PMC partners. Thus, these guidelines will be revisited as needed to ensure that the PMC is performing in the best interest of EERE.

Users should find this guide helpful in understanding the EERE “one way of doing business,” their role in project management, and how to perform their project management duties. Wide-spread acceptance and use of this guide should smooth the transition to the PMC, minimize disruptions, and yield early favorable returns from the time and energy invested in the creation and establishment of the PMC.





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## 1.0 Background and Introduction

### 1.1 Background

Click the following to access the EERE Web site: <http://www.eere.energy.gov/> and the EERE PMC Web site: <https://www.eere-pmc.energy.gov/>.

In September 2003, the **Office of Energy Efficiency and Renewable Energy (EERE)** established the **EERE Project Management Center (PMC)**, a dedicated field implementation capability with the sole purpose of providing common comprehensive management services (project, financial, legal, procurement) for all EERE Programs. Prior to that, individual EERE Program Offices had long-standing working relationships with various DOE field offices and laboratories. Although these arrangements were generally effective, this vast network of providers was problematic in EERE's overall approach to create a Federal implementation capability, and would continue to be an overall challenge for EERE's new "one way of doing business." For instance, the old project management framework resulted in the following issues:

- Fragmented project implementation with little opportunity for EERE Program integration;
- High service and transaction costs;
- Inefficient and inappropriate use of DOE's National Laboratories for subcontract project management;
- Difficulty in making corporate-level EERE decisions using data coming from multiple sources and systems; and
- Difficulties for EERE and its customers caused by multiple procurement and project management approaches.

The PMC is a streamlined approach and a virtual organization that consists of the **Golden Field Office (GO)**, six **Regional Offices (ROs)**, the **National Energy Technology Laboratory (NETL)**, and the **State Technologies Advancement Collaborative (STAC)**. The PMC became fully functional in October 2004.

### 1.2 What Is Project Management?

Project Management is an integrated, multi-disciplinary function and structured approach that ensures activities are defined, initiated, and carried out successfully in pursuit of EERE program goals and objectives. Project Management within the PMC includes more than just technical oversight and monitoring; Project Management as used in this context includes the technical, procurement, legal, financial, NEPA, and other various disciplines needed to ensure the activity is successful.

### 1.3 What Does the PMC Do?

As Figure 1.1 shows, each program receives dedicated service from one or, in some cases, two PMC components. However, there are single points of contact between Program Managers and PMC entities; i.e., where multiple organizations support a program there is a lead en-

tity. The PMC works directly with the Program Offices to identify and define all project requirements in terms of the work required, cost, and schedule. The PMC then implements the projects. It solicits and evaluates proposals or applications from the private sector, academia, National Laboratories, and/or other government organizations. The PMC then awards grants, cooperative agreements, contracts, memoranda of understanding, etc. The PMC also administers the awards, taking corrective action as appropriate, and regularly reports status and milestone achievements until the project is completed.

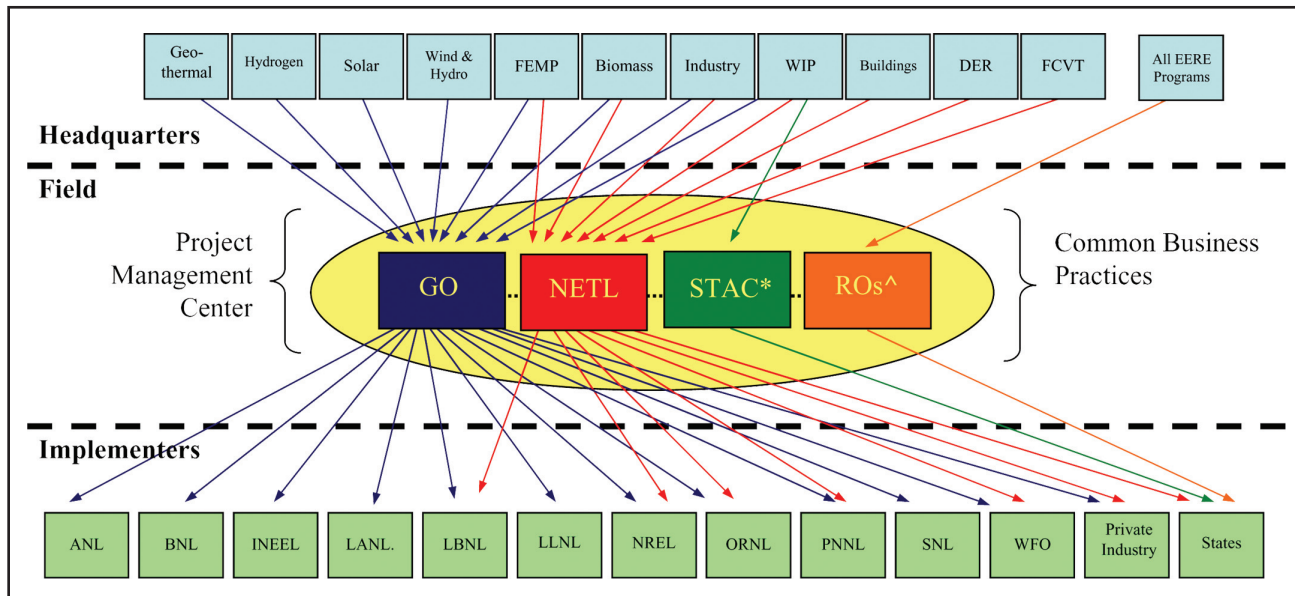


Figure 1.1 EERE Project Management Center

#### 1.4 Why a Dedicated EERE PMC?

The PMC takes advantage of the resources and capabilities at GO, ROs, NETL, and STAC to manage a specific set of projects using common business practices. The PMC provides a number of corporate advantages for both EERE, in particular, and DOE, in general. The advantages are as follows:

- EERE now has a full service project management implementation capability with the essential disciplines; e.g., technical, procurement, finance, legal;
- Common project management practices are being employed across all of EERE;
- **Contracting Officer (CO)** and **Contracting Officer Representative (COR)** and/or Project Officer (PO) functions for RDD&D clearly reside in the PMC; and
- Combined resources of GO and NETL give EERE the administrative resources necessary to deal with surges in fluctuating workflow.

## 1.5 PMC Vision

The PMC vision is that EERE HQ, Field and external parties will use standardized practices to conduct business through a single PMC Web site which serves as a universal tool for generating essential project management products and for capturing, storing and making available project management information.

A Virtual Center Employing Common Project Management Practices Across EERE's Field Organizations				
Project Management Center Membership	Golden Field Office RD&D	National Energy Technology Laboratory RD&D	EERE's Six Regional Offices Deployment	STAC* Deployment
Program Assignments	<ul style="list-style-type: none"> <li>• Solar Energy</li> <li>• Wind &amp; Hydropower</li> <li>• Geothermal Energy</li> <li>• Biomass</li> <li>• Industrial Technologies</li> <li>• Hydrogen, Fuel Cells</li> <li>• FEMP</li> <li>• OWIP – Native American</li> <li>• OWIP – Inventions</li> </ul>	<ul style="list-style-type: none"> <li>• Buildings Technology</li> <li>• FreedomCAR/Vehicles</li> <li>• Distributed Energy</li> <li>• OWIP</li> <li>• Indust. Tech. – Mining</li> <li>• Biomass – Black Liq. Gasif.</li> <li>• FEMP - BAMF</li> </ul>	<ul style="list-style-type: none"> <li>• Weatherization</li> <li>• State Energy Program</li> <li>• Clean Cities</li> <li>• Energy Star</li> <li>• Bldgs. Codes, Training</li> <li>• Wind Powering America</li> <li>• Geopowering the West</li> <li>• Distributed Energy</li> <li>• Biomass</li> <li>• FEMP</li> <li>• Industrial Technologies</li> <li>• Solar</li> </ul>	State and Sciences Initiatives and Rebuild America Activities
Administrative Assignments	STAC* Cooperative Agreement	Regional Office Contracting Officers		

\*State Technologies Advancement Collaborative

Figure 1.2 PMC Assignments

## 1.6 PMC Assignments

PMC components have distinct assignments for implementing elements of the 11 EERE Programs in support of EERE Headquarters (HQ). These assignments are shown in Figure 1.2, above:

## 1.7 Partnering to Develop and Manage the PMC

As a virtual organization, the PMC elements partner across organizational boundaries to achieve the PMC mission and pursue continuous improvement. The PMC has no director of operations. Individual managers or focal points work collaboratively and come together as needed to develop and/or refine PMC policies, practices, processes, and procedures. Issues are resolved through mandated or self-initiated ad-hoc teams. Accomplishments to date in developing PMC capabilities include:

- Developing the PMC Web site;
- Defining standard financial assistance terms and conditions;
- Developing various procedures; e.g., cost accrual, reporting, merit reviews, congressional notification, COR responsibilities;
- Instituting procurement planning; and
- Providing training in project management and project officer responsibilities.

## 2.0 Purpose of the Guide

### 2.1 Why a PMC Guide?

*The EERE Program Management Guide ([http://www.eere.energy.gov/office\\_eere/ba/pmi/guide.html](http://www.eere.energy.gov/office_eere/ba/pmi/guide.html)) and the EERE Program Management Guide “Quick Reference” ([http://www.eere.energy.gov/office\\_eere/ba/pmi/pdfs/pm\\_quick\\_reference\\_guide.pdf](http://www.eere.energy.gov/office_eere/ba/pmi/pdfs/pm_quick_reference_guide.pdf)) are helpful resources.*

This document is intended as a handy yet comprehensive PMC Guide for both users and providers. It lays out the PMC’s purpose and the EERE one way of doing business in terms of pertinent functions, processes, operating cycles, business roles and responsibilities, and rules of engagement. It provides general guidance with links and/or references to very detailed and specific processes and procedures as well as governing regulations and guidelines for **procurement** (which includes **acquisition** and **financial assistance**), **financial management**, and **project management**. This Guide is organized around the four program and project management cycle phases of planning, budget formulation and defense, implementation, and evaluation. To the extent practicable, it parallels and links to the **EERE Program Management Guide** and the **EERE Program Management Guide “Quick Reference.”** These guidelines will become the baseline for the continuous improvement of all EERE RDD&D project management activities.

If you are a user or a customer of the PMC or if you provide one or more PMC services, this guide should help you perform your job correctly, effectively, and efficiently.

### 2.2 How to Use this Guide

Start by familiarizing yourself with the organization and contents of the Guide. Read Section 3 to gain an understanding of the general purpose and functions of the PMC. Next, read Section 4 to gain a greater understanding of each of the project management functions. Even though you are knowledgeable and experienced, you may pick up new hints and insights that will give you an improved perspective on the EERE “one way of doing business,” including the basic EERE approach to project management, and the PMC. Use the table of contents to locate topics of interest and the glossary to interpret specific terms. See Appendix 1 to view a detailed flowchart of the entire project management



cycle from Planning through Budget Formulation, Implementation, and Evaluation. From this flowchart you will be able to link from the specific action and decision steps to more detailed information describing required inputs, outputs, and identifying applicable forms and information tools in Appendix 2. We have placed links to more detailed information throughout the Guide. To avail yourself of the full functionality of the Guide, access and use it through the EERE intranet at <http://ee-intranet.ee.doe.gov/pmi> or the PMC Web site at <https://www.eere-pmc.energy.gov/>. This will allow you to click on the references in real time as you use the Guide.

## **2.3 Understanding Your Role and Interfaces**

As you read through the Guide, pay special attention to your role in the overall project management process. Identify those activities in which you take part and what you and those with whom you interface need to do to make those activities successful. Take note of who, functionally as well as the specific individuals, rely upon you for input and conversely, who you rely upon. Think of the roles of others and the information and support they need from you. Consider their time needs, particularly those involved in the later stages of the process whose work tends to stack up against ultimate deadlines. Above all, develop a working relationship with them based on communication and mutual trust. If you follow these guidelines, your working life may become more pleasant, free from unnecessary surprises, and generally more successful.

## **2.4 Continuously Improving EERE Project Management**

This Guide is intended to be a “living document.” As the EERE “one way of doing business” is further defined and evolves, changes to the PMC structure, roles, relationship, processes, and practices will be incorporated herein. Notice of these changes will be issued as addenda to the document and periodic block updates will be issued. Any suggestions or recommendations you have on ways to improve EERE project management will be forwarded to the leadership in the Office of Technology Development (OTD), the Office of Business Administration (OBA) and the PMC as appropriate for consideration. Send them to [Barbara.Mandley@ee.doe.gov](mailto:Barbara.Mandley@ee.doe.gov). Decisions regarding use of your ideas will be returned to you in a timely manner.

### 3.0 EERE Project Management—“One way of doing business”

EERE project management and the operations of the PMC are intended to evolve to a level of standardization in which users of PMC products and services will be able to conduct their business, using the same forms, formats, inputs and outputs regardless of which PMC element they are dealing with. The remainder of this section defines that “one way.”

#### 3.1 Relationship of Programs and Projects

To accomplish its mission, EERE divides its work into manageable segments that can be represented by a work breakdown structure as shown in the Figure 3.1 below:

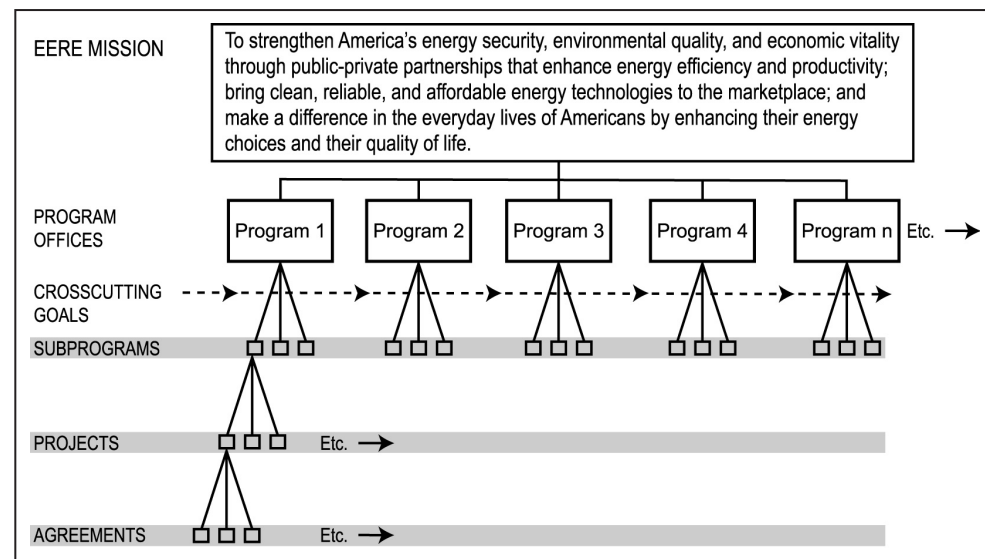


Figure 3.1 EERE Work Breakdown Structure

##### 3.1.1 Distinction Between EERE Programs and EERE Projects

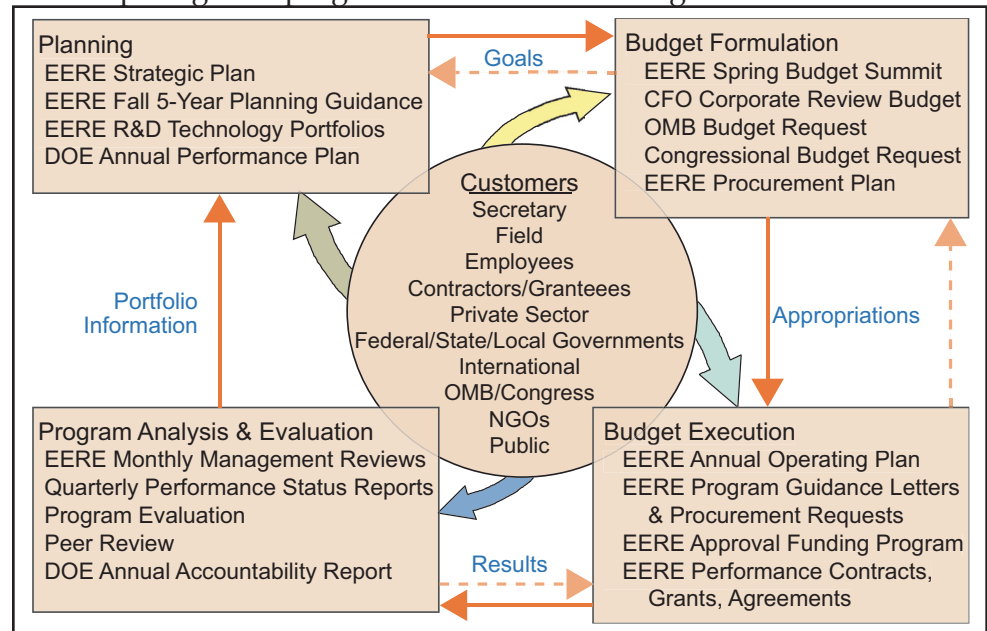
**Definition of a Program:** An organized set of ongoing activities directed toward a common purpose, or goal undertaken in support of an assigned mission area. EERE has 11 major programs it implements. And, it plans, tracks, and reports its program direction funds like a 12th program.

A program is generally the highest level of work breakdown structure within a specific mission area. It is characterized by a strategy for accomplishing a set of definitive goals and objectives aligned to and in support of mission goals. A program is generally subdivided into subprograms which, in turn, are typically subdivided into projects that are managed closely by using project management tools and techniques.

**Definition of a Project:** An executable element of a program normally with its own discrete beginning, end, and specified outputs. A project is an executable increment or stepping stone of program activity (e.g., FY 2005 heavy vehicle fuel system research and technology advancement) aimed at achieving specific objectives in a specified period. An EERE project consists of a single or a group of agreements or activities that are being implemented. As defined in the EERE Annual Operating Plan, the PMC will be responsible to fully implement these activities.

### 3.1.2 PMC in the EERE Strategic Management System

The **Strategic Management System (SMS)** is EERE's executive program management operating system. It is an integrated set of management activities that defines EERE's planning, budget formulation and defense, program implementation, and analysis and evaluation processes. It maps out a scheduled series of activities and their interdependencies. This helps align the program and business management activities and

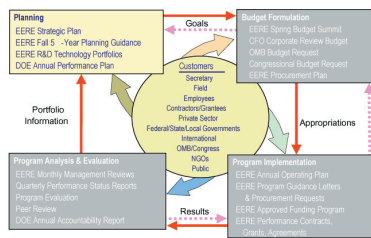


**Figure 3.2 EERE Strategic Management System**

provides critical information at the right time for key decision making. Figure 3.2 illustrates the inner workings of the SMS.

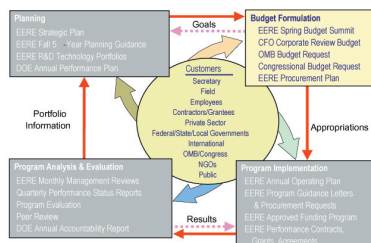
Project management is an integral part of the EERE SMS. The PMC is accountable for performing various roles and functions to support the EERE SMS. The full project management cycle entails important work activities in each of the four SMS phases. These activities are listed in Figure 3.3.

## Key PMC Involvement (Ref EERE Program Management Guide)

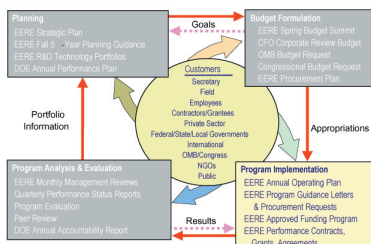


1. Provide the Program/Technology Management team recommendations on technical performance, cost, and schedule requirements.
2. Define the project objectives and how the project will be organized.
3. Define the project management approach and optimize the procurement strategy.
4. Develop the **Project Execution Plan**.

5. Maintain awareness and understanding of EERE program goals, objectives, and strategies.

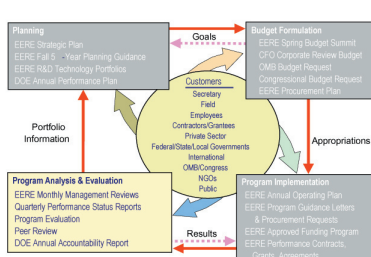


1. Prepare resource requirements for the project.
2. Estimate and validate contractor and federal FTE requirements.
3. Identify and validate necessary facilities and equipment.
4. Justify the Program's submission to the **EERE Corporate Review Budget (CRB)**.



1. Determine project and contract scope and recommend new project modifications.
2. Execute the project in coordination with the field procurement function.
3. Select the project performers (awardees) in coordination with the procurement function.

4. Evaluate and determine the acceptability of awardee performance.
5. Monitor project level milestones and evaluate progress.
6. Provide technical direction to awardees.
7. Timely distribute project funds.
8. Coordinate project with HQ management and staff elements.
9. Support project accountability via baseline tracking and reporting.



1. Track project execution against cost, schedule, and technical performance.
2. Independently assess regular project status reports.
3. Identify significant variances in project progress and recommend corrective action.
4. Regularly assess and report project status to the Program/Technology Manager with recommendations to continue, modify, or discontinue the project.

Figure 3.3 EERE SMS Phases Descriptions

### 3.2 EERE Project Management Roles and Responsibilities

EERE HQ Program Offices plan, direct, and oversee their respective programs. The PMC assists them in identifying and defining a set of projects that will achieve program goals, objectives, and milestones. This involves providing inputs to and participating in the development and maintenance of program-level **Multi-year Program Plans (MYPP)**, **Annual Operating Plans (AOP)**, and **Acquisition Plans**. The PMC then implements the AOP and Acquisition Plan as shown in the yellow “Field” segment of the triangle in Figure 3.4.

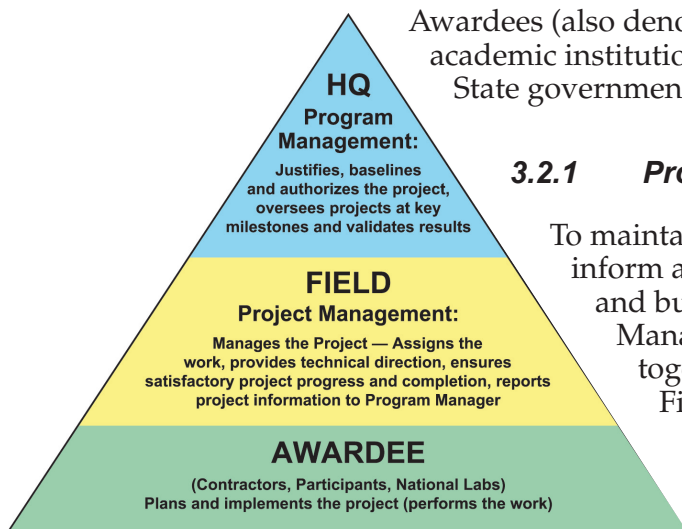


Figure 3.4 HQ and Field Roles and Responsibilities

Awardees (also denoted as “Recipients”) include contractors, academic institutions, non-profit organizations, interagency and State government partners, and National Laboratories.

#### 3.2.1 Program and Project Management Teaming

To maintain effective communications and adequately inform all key processes with appropriate technical and business inputs, EERE Program/Technology Managers and PMC Project Managers work closely together. Their relative involvement is depicted in Figure 3.5 below. In general, as the focus shifts from programmatic considerations to the detailed activities of Project Management and Procurement, the involvement shifts from HQ to the PMC accordingly.

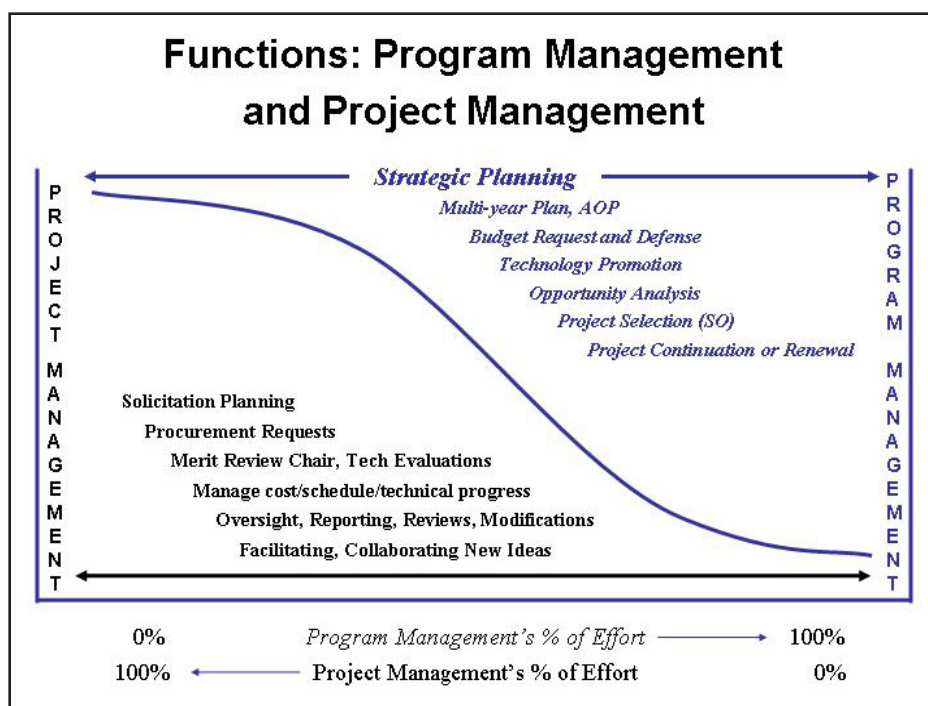


Figure 3.5 Program/Project Management Teaming



### 3.3 EERE Project Management Model

Dynamically, the EERE project management process is as shown in Figure 3.6 below. Note the crosshatched arrows which represent major communication streams between HQ and the field. Also note that three of the primary project management functions, Legal Counsel Review, Procurement, and Project (Implementation and) Management are shown explicitly. The fourth function, financial management, occurs both prior to and after procurement in terms of identification, allocation, movement, and appropriate use of funding provided and subsequent tracking and reporting of funding expended (costed).

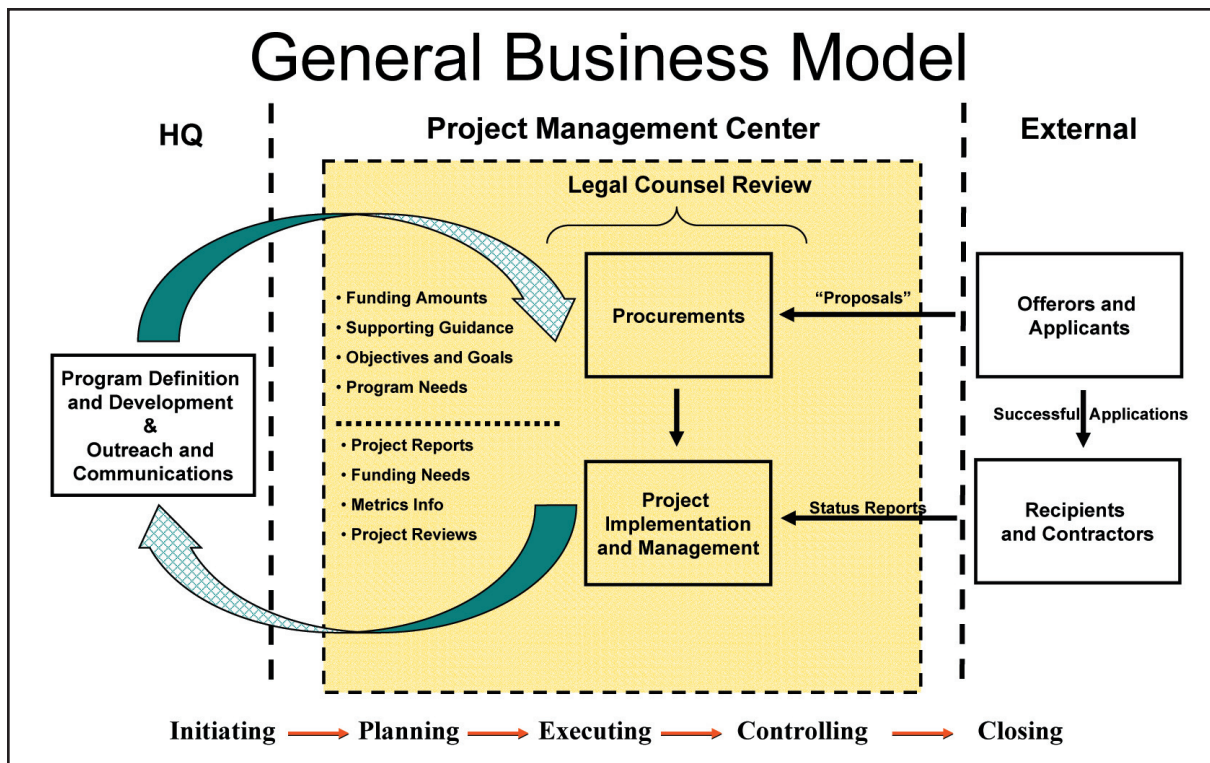


Figure 3.6 Project Management Model

### 3.4 Project Life Cycle

A project is conceived during Multi-year Program Planning and further defined during Annual Operations Planning. It is initiated by being scoped, that is, defined in terms of required technical activities, outputs, and outcomes. Then it is funded and assigned to the PMC. After requirements are defined by the Program/Technology Manager, the PMC implements the project by conducting requirements definition, procurement planning, announcement, selection, award, post-award administration, and project monitoring and closeout. As previously mentioned, each of these phases involves teaming between HQ and the PMC and within the PMC between the four major functions. As the PMC manages the project through to conclusion, it reports progress back to the Program Office regularly and as significant issues arise.



## 4.0 General Discussion

### 4.1 Procurement

EERE projects are funded and directed to the awardees identified in Section 3.2 above through two basic procurement methods. These are financial assistance and acquisition.

Financial assistance is the procurement method used most frequently to implement EERE projects. Financial assistance agreements are used when the purpose is to transfer funds to outside performers to conduct activities for a public purpose of support or stimulation. The two types of financial assistance award instruments are grants and cooperative agreements. Recipients of R&D financial assistance awards are required to contribute a specified share of the costs depending on the maturity of the technology. Additionally, cooperative agreements require substantial involvement between the Government and the financial assistance recipient in carrying out the activities.

Acquisition is used to award contracts to outside entities to acquire goods and services for the benefit and use of the Government. Cost sharing is not required. Management and Operating (M&O) Contracts are used to fund and direct operations at Federally Funded Research and Development Centers (FFRDCs) (DOE National Laboratories). Specific laboratory tasks are funded and directed through modifications to the basic M&O contract.

The procurement processes are well defined and regulated. Financial assistance is governed by 10 CFR Part 600 and contracting is governed by the Federal Acquisition Regulations (FAR). Each establishes authorities and strictly regulates practices to ensure fairness and high business and ethical standards. Financial assistance and acquisition can be either competitive or non-competitive. Non-competitive awards require special justifications and approval.

The procurement process, from initiation to award, is complex and time consuming, and, depending on the size and complexity of the individual procurement, is typically 6–8 months in duration but may take up to 18 months for very large and complex contracts such as M&O Contracts. Because of this, program/technology managers and project managers must factor the anticipated procurement lead time into their planning. The notional procurement timeline is shown in Figure 4.1 on the following page.

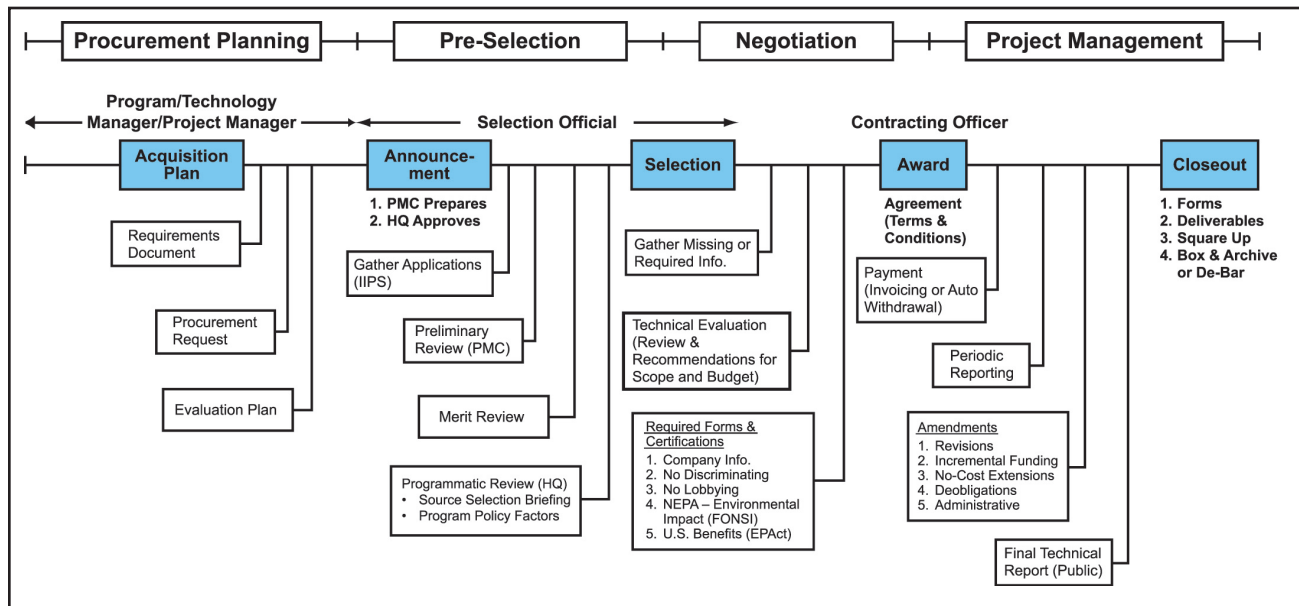


Figure 4.1 Procurement Process

The PMC Procurement Offices and Project Management Offices work closely to carry out all PMC procurements. The Procurement Office, however, has the primary focus, responsibility, accountability and authority for the conduct and content of the grant, cooperative agreement, or contract. For each award, the CO has the sole authority. He/she is assisted by one or more Contract Specialists who perform many of the day-to-day activities associated with announcement, award, and post-award administration. Specifically, the PMC Procurement Office is responsible for the following:

- With input from the Program Office, determines the appropriate procurement vehicles (contract, grant, cooperative agreement)
- Assists in procurement planning to determine the optimum approach for announcements
- Participates in procurement strategy meetings to formulate individual announcement strategies
- Develops the announcements in conjunction with the Project Office
- Posts the announcements and all associated answers to questions received
- Reviews the Selection Statements prior to the Selecting Official making selections
- Prepares the appropriate selection notifications (e.g., Congressional, press releases)
- Negotiates awards and conducts cost/price analyses
- Signs the awards
- Provides all required post-award approvals

- Performs administrative follow-up on delinquent reports, as necessary
- Performs closeout functions

## **4.2 Project Management**

Working closely with the Procurement Offices, the Project Management Offices in GO, NETL, and the ROs serve as the primary agents for planning, initiating, and overseeing the project. Their focus is on ensuring that the project meets its technical, cost and schedule requirements. Prior to award, the Project Manager acts as intermediary between the Program/Technology Management team and procurement. After award, the Project Manager interacts with the awardee, serving as both the technical representative to the CO and the eyes and ears of the Program/Technology Management team. He/she supports the procurement process and the CO during each procurement phase.

### **4.2.1 Announcement Phase**

In terms of procurement support to procurement during the announcement phase, the Project Manager performs the following tasks:

- Evaluates the DOE Program requirement
- Develops the announcement with HQ and Procurement
- Develops the Evaluation Plan
- Receives and processes applications
- Organizes the merit review process

### **4.2.2 Selection Phase**

During the selection phase, the Project Manager performs the following tasks:

- Seeks and secures merit review committee members
- Chairs the merit review committee or participates as a merit review committee member
- Helps the selecting official apply program policy factors
- Prepares the chairperson's report
- Drafts the Selection Statement
- Assists in de-briefing of applicants

### **4.2.3 Merit Review Process**

Specific to organizing and managing the Merit Review Process, the Project Manager maintains the integrity of the process, ensuring that it is timely, fair, objective, and effective and yields the most rational and justifiable recommendations for selections. The following characteristics of the process are integral to success:

- Committee members reflect stakeholder diversity
- No consultation occurs among reviewers prior to committee meeting
- Written evaluations for each application from every reviewer are received and recorded prior to the committee meeting
- Facilitated process, non-voting chairperson
- “Rounds” of discussion (to develop and apply internal scoring standards, and verify consistent use)
- Application of appropriate policy factors
- Consensus findings
- Recorded score of each application
- Cut-off score determination
- Recommended applications — usually with unanimous consent
- Safe environment for committee members
- Results kept confidential, reported by Chair to the Selecting Official (SO).

### **4.2.4 Award Phase**

During the award phase, an individual (typically the Project Manager) will be designated a Project Officer (PO) or Contracting Officer Representative (COR) depending upon whether the activity is Financial Assistance or Acquisition. The PO/COR assists in preparing the award package for both competitive awards and for non-competitive awards, which include unsolicited proposals and earmark procurements. For competitive awards, the PO/COR performs the following tasks:

- Evaluates the Statement of Project Objectives
- Develops the milestones/metrics/schedule
- Evaluates the proposed budget
- Prepares the technical/cost review
- Prepares the Procurement Request (PR) form
- Develops the reporting requirements
- Helps resolve and negotiate final award issues
- Enters project information into EERE Corporate Planning System (CPS)

In addition to the above activities, for unsolicited applications and earmarks the PO/COR also prepares the Determination of Non-Competitive Financial Assistance (DNFA), which must be submitted to and approved by ASEE.

#### **4.2.5 Post-Award Phase**

During the post-award phase, the PO/COR handles the following duties:

- Manages project progress against Statement of Work (SOW)/milestones
- Conducts site visits and project reviews
- Reviews invoices/reimbursements
- Maintains ongoing relationship/communications with the Principal Investigator and team members
- Reviews interim reports
- Keeps HQ Program/Technology Manager apprised of progress and issues for concern
- Reviews and comments on final report
- Assists in closing out the project
- Ensures projects are conducted within the requirements and limitations of **10 CFR Part 600, Energy Policy Act (EPA), National Environment Policy Act (NEPA), Environment Safety and Health (ES&H) rules, DOE Orders and Directives**, and EERE policy and guidance statements (note these differ for contracts vs. cooperative agreements)

#### **4.3 Unique Projects with States**

In general, PMC policies, practices, roles, and responsibilities apply to RO deployment activities. However, because of several special factors, which include the application of legislated formula grants and synergistic working relationships with the States and their energy offices, there are several types of projects that require different procedures. Descriptions of these projects follow.

ROs conduct most deployment projects through three types of financial assistance: the State Formula Grants; State Energy Special Projects; and State Omnibus Awards. When a RO conducts a solicitation or a sole source award, it follows the same process as described under 4.2 Project Management. The PO also performs the tasks described in 4.2.4 Award Phase and 4.2.5 Post-Award Phase for the State Formula Grants, State Energy Special Projects, and State Omnibus Awards.

### **4.3.1 State Formula Grants**

Formula grant programs are established by Congress and are noncompetitive awards to States based on a predetermined formula. The programs are sometimes referred to as State-administered programs. EERE has two formula grant programs that were established by law in 1975 (10CFR, Part 420), the State Energy Program (SEP) and the Weatherization Assistance Program (WAP). Both programs have federal regulations which define the formula for the distribution of funds to States and the program requirements.

The Regional Offices are responsible for reviewing and approving each State's SEP and WAP plans. They also monitor the grants through site visits, an online reporting system (WinSAGA), and quarterly or semi annual progress reports. States input their plans and reports into WinSAGA. The ROs also use WinSAGA to generate NFAs, PRs and other procurement documents.

#### **4.3.1.1 State Energy Program**

The State Energy Program provides States with funding for energy efficiency and renewable energy projects to increase the capability of State governments or U.S. Territories to react to energy emergencies, coordinate national energy efficiency goals, and address state-specific energy needs. The SEP State Plans describe the activities the State will undertake during the year of the grant, and includes federal mandated activities and optional program activities that meet the goals of the Program. The optional activities are determined by each State according to its individual energy priorities. The State Energy Offices manage all the work deploying emerging renewable energy and energy efficiency technologies funded by SEP.

#### **4.3.1.2 State Energy Program Awards**

- HQ prepares formula allocations and guidance: December
- The PO shares the guidance with States: January
- States Prepare SEP Grant Application: 45 days after Guidance issued
- PO evaluates the State plan
- PO evaluates the proposed budget
- RO makes grant award: by June 30

#### **4.3.1.3 WAP**

The WAP provides funds to States, the District of Columbia, and Native American tribes to increase the efficiency of dwellings occupied by low-income persons to reduce their energy consumption and lower their



energy bills. States, in turn, fund non-profit organizations and local governments to purchase and install insulation and other energy conservation materials. The WAP is the nation's largest residential energy efficiency program, weatherizing over 90,000 single-family, multi-family, and mobile homes annually.

Advanced energy audits are used to determine cost-effective measures for the buildings including blower door testing and heating and cooling system testing for retrofit and replacement, lighting, and refrigerator replacement. The Weatherization Program includes funding for training and technical assistance for the 970 local agencies nationwide.

#### 4.3.1.4 WAP

- Share Guidance with States: December
- States Prepare WAP Grant Application: January-February
- Date Submitted: Usually by February 15
- RO Review and Approval: February 15 through March 31
- Grant Award: No later than March 31
- Monitoring: Each state, every two years, minimum.

#### 4.3.1.5 SEP Special Projects (SEP-SP)

SEP Special Projects accelerate the deployment of energy efficiency and renewable energy technologies by leveraging the expertise of State Energy Offices (SEO) and providing a funding mechanism for collaboration between States and EERE Program Offices on individual projects. DOE releases an annual solicitation detailing Special Project opportunities and States compete for funding by submitting proposals. Each EERE program establishes a Merit Review Committee to review the proposals and select those eligible for an award. Most proposals require some level of cost share from recipients.

#### 4.3.1.6 Special Project Awards

- Funding Opportunity Notice: January
- Solicitation Issued: February
- SEP-SP Grant Application Due: March
- Merit Review Committee: May
- Selection: June

- RO Review and Approval: July
- Grant Award: By September 30
- Reporting requirements: Semi-annually, final
- Monitoring: Once per project

#### **4.3.2 Omnibus Awards**

State Omnibus Awards are designed to provide a streamlined and flexible mechanism for DOE, SEOs and WAP State agencies to partner in a cooperative fashion on state-level energy efficiency, renewable energy, and weatherization activities within a State. The cooperative agreement enables SEOs and WAP State agencies to fund activities using direct State resources and other partners or customers under sub-agreements to formulate and implement activities that are state-specific in nature.

DOE awards, through a restricted eligibility solicitation, cooperative agreements to SEOs and WAP State agencies. An initial master agreement award is established describing the general nature of the cooperative activities. As discretionary funds become available through DOE Program Offices, the ROs identify opportunities for States to submit applications for subsequent awards under the master agreement. Each subsequent award includes a scope of work, separate budget, deliverables, and timeline for the completion of activities. Individual awards cannot exceed \$100,000.

#### **4.4 Financial Management**

During the planning phase, finance provides current financial information on projects, staff, and facilities as well as information on projected needs of individual projects, programs, and EERE.

Finance also serves as the PMC budget staff for reviewing, coordinating, and responding to CFO budget calls and other Program Office requests. Finance ensures that PMC responses conform to the call and are accurate, reasonable, integrated, and aligned to EERE policy and goals. Finance also briefs PMC management, submits responses to the appropriate HQ officials, and coordinates actions and HQ questions and requests for additional information.

During implementation, finance receives reviews and records the monthly Approved Funding Program (AFP) identifying and resolving problems with EERE, the CFO, or the Allottee. Finance also ensures EERE Program Guidance letters comply with EERE and CFO policy guidance and records funding reservations and obligations for each Financial Assistance Award. They coordinate information entries to establish payment processes for each awardee and provide real time financial information to Project Management and Procurement staff and PMC management.

During the evaluation phase, finance establishes policy for and tracks cost accruals and compiles and provides monthly obligation, cost, uncosted balances and payment data to projects, programs, and PMC management. Finance also tracks and reports limited-term appropriations to Project and Program Managers to assure funds are used most effectively.

The NETL role as the PMC allotment holder includes establishing and maintaining an effective system for administrative control of funds allotted to the PMC, certifying fund availability, ensuring sufficient funds are available to cover estimated obligations, ensuring accounting reports are supported by source documents, and designating in writing authorized officials to sign program release documents.

All funding for the PMC flows through the NETL AFP. The funds are allocated into the DOE financial management system by NETL personnel in coordination with PMC members. NETL has the responsibility for funds control to ensure obligations do not exceed the funding provided and serves as the certifying office for all PMC requests for adjustments to the AFP. All financial information for the PMC is available from the NETL allotment which provides consistent reporting to PMC customers.

#### **4.5 Legal Services**

Legal support of the PMC is provided by the respective Offices of Chief Counsel for GO and NETL. This support consists of the legal review of procurement actions and award administration of those PMC matters that arise under the respective Office's Head Contracting Authority (HCA). These reviews involve legal issues concerning acquisition/financial assistance planning, source selection, cost-sharing, negotiation of awards, and project administration. Intellectual property issues, dispute resolution, bankruptcy matters, litigation, and application of environmental laws are also addressed by counsel.

In addition, as the only group of DOE lawyers under direct purview of EE, the Office of Chief Counsel at GO provides federal ethics counsel and personnel law support to all EE field personnel as well as providing fiscal law, earmark, [Energy Policy Act](#), and [Federal Advisory Committee Act](#) guidance to EE program elements.

#### **4.6 HQ Project Management Responsibilities**

As mentioned in Section 3.4, Project Life Cycle, HQ Program Managers, Technology Development Managers and their teams play a critical role and have explicit responsibilities for the successful identification, initiation, oversight, and support of EERE projects. As Figure 3.6 shows, many of the activities of project and program management are collaborative. The following lists specific HQ Program Management activities in both lead and supporting roles:

- Develop and update the Program Multi-year Plan which identifies key elements and activities and organize the work to be performed to achieve program goals, objectives and milestones.
- Develop and update the Annual Operating Plan which lays out the projects for the ensuing fiscal year.
- Justify, baseline, in terms of the technical work, cost and schedule, and authorize the projects.
- Enter project baseline descriptions in CPS.
- Working with the PMC, develop the annual spend plan.
- Working with the PMC, develop the procurement (acquisition and financial assistance) plan.
- Ensure that funding amounts from the spend plan are entered into the Approved Funding Program (AFP).
- Develop and transmit supporting guidance for each project.
- Support development of, and approve, the Requirements Documents.
- Support development of solicitations/announcements and evaluation plans.
- Support the merit review process.
- (Program Managers) frequently serve as the selecting official and, using the report from the merit review committee and program policy factors, select the projects for award.
- Receive and review periodic reports from the PMC.
- Decide whether to continue, redirect, or discontinue projects.
- Work with the PO to address project performance issues.

## 5.0 EERE Project Management Information Resources and Tools

### 5.1 PMC Web Site

As mentioned previously, the vision of the PMC is that all essential EERE Project Management products will be generated and information managed through the PMC Web site, <https://www.eere-pmc.energy.gov/>.

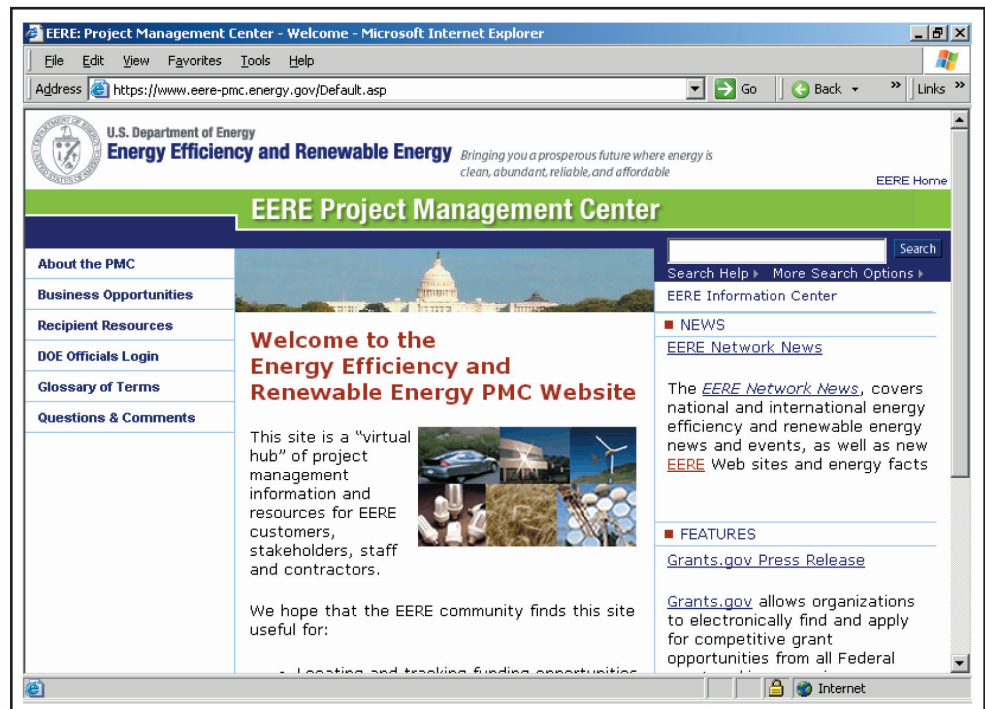


Figure 5.1 PMC Web site

The external section is open to the public and describes the PMC, provides information on business opportunities including funding opportunities, instructions on preparing and submitting unsolicited proposals, informational links for small businesses and inventors, and a set of related links to the informative Web sites. The external section also contains links for financial assistance recipients for submitting reporting requirements; submitting state master file documents; reviewing [NEPA compliance information](#); and linking to DOE, Standard Federal, and other miscellaneous forms.

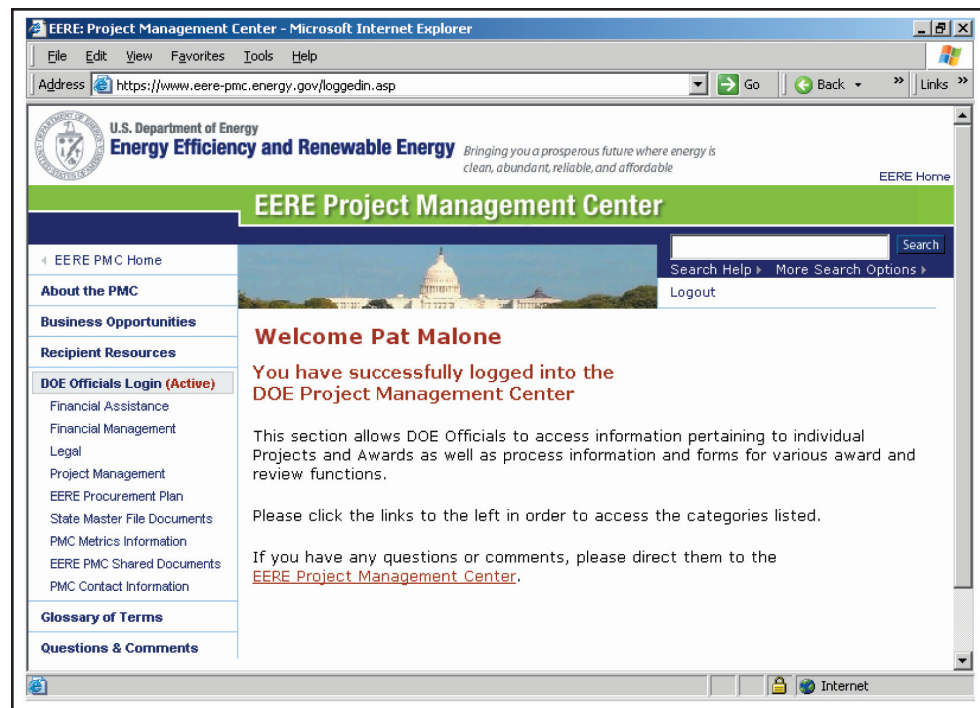


Figure 5.2 PMC Web site

The internal section allows DOE/EERE officials to access information pertaining to individual projects and awards as well as process information and forms for various award and review functions. In addition, this Guide has been placed on the PMC Web site and the EERE Intranet site with active links to other pertinent information referenced herein that has been posted in EERE intranet files or other internet addresses. To receive the full benefit from this Guide, please use the interactive version.

The internal version requires a user ID and password. EERE employees may obtain login information by clicking on the “DOE Officials Login” link or going directly to <https://www.eere-pmc.energy.gov/loggedin.asp>. Once on the login site, follow the instructions for new users.

Appendix 3 lists current standardized processes, forms and reports that are posted on the internal section of the PMC Web site.



## 5.2 EERE and Departmental Information Systems

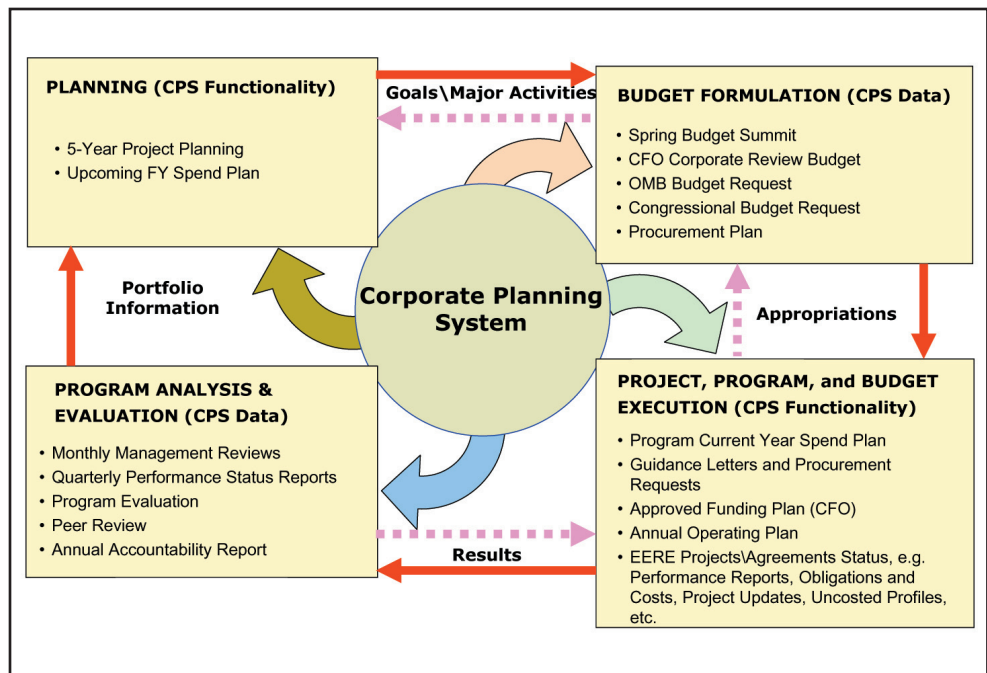


Figure 5.3 EERE CPS

### 5.2.1 The CPS

CPS is EERE's corporate system for managing program and project performance, through the creation of multi-year project plans, annual operating plans, and annual spend plans; the development and execution of program guidance, projects and agreements; and standard reporting of schedule, cost, and deliverables.

CPS supports program and project planning by providing program and project managers the ability to:

- Create Annual Operating Plans
- Create Multi-Year Project Plans
- Create Annual Spend Plans
- Create Procurement Plans
  - Initiate Requirements Documents in Support of Procurement Plans
- Access Multi-Year Data
- Develop Program-to-Project Milestones

CPS supports budget formulation by providing the capability to:

- Develop Multi-Year Funding Projections for Projects and Agreements
  - Provide Program Mortgages
- Identify Funding Needs through Multi-Year Procurement Planning
- Develop Multi-Year Spend Plans
- Tie Budget to Performance by Linking Program to Project Milestones

Program Implementation and Project Management are supported by CPS, which allows program and project managers to do the following:

- Create, Edit, and Manage Projects and Agreements
- Create, Edit, and Manage Program and Project Milestones
- Report on Projects; Spend Plan, Milestones, Exception, etc.
- Manage Allocation and Execution of Funds
  - Create, Edit, and Manage Guidance Letters
  - PMC-Initiated Fund Transfers
  - Flow of Funds
- Identify the Key Points of Contact are for Corporate, Field, and National Laboratories

In the Analysis and Evaluation phase, CPS provides the following features:

- Links Corporate-to-Program-to-Project Milestones
  - Joule and Program Assessment Rating Tool (PART)
- Provides Corporate Milestone Reporting
  - Joule, PART, and President's Management Agenda (PMA)
- Allows Tracking and Reporting: Program, Project, Agreement, and Acquisition Milestones
- Allows Technical Reporting: Projects and Agreements
- Allows Cost Reporting: Commitments, Obligations, Costeds, and Uncosteds

The roles and responsibilities of CPS vis-à-vis the PMC are shown in the following table:

Area	CPS Action
Headquarters (HQ)	Create and fund high level projects in CPS and align those projects with each Technology Program's goals.
PMC (GO and NETL)	Update project information at the award level through agreements.
PMC (RO)	Update project information on deployment activities through agreements.

### **5.2.2 EERE Information System**

The EERE Information System (EIS) is a uniform corporate information repository that simplifies and integrates access to and use of information related to EERE resources, milestones, and results. EIS eliminates the need for multiple reporting tools and the resulting costs due to duplicated training, maintenance, administration, servers, support, and lack of consistency in the information users need to make decisions. EIS lets users create, modify and distribute any report their office requires – IDW, PADS, DISCAS, CPS, Winsaga, ProMis, CSC, Applix, Travel, Training, Personnel and inventory reports.

EIS standardizes existing internal processes for managing spending, measures and project data. It links the Spend Plan, Measures and Project Descriptions and Milestones for execution baselining (the EERE Annual Operating Plan), business / performance management and reporting, and budget formulation. EIS provides access to Departmental and Field data for obligations, costs, procurement status, which relates the data to CPS. It facilitates the tracking of program progress against goals, objectives, milestones, and planned and appropriated funding. Users can access the System in a single, easy-to-use “front end” all on the existing EE-Reportnet server framework. The data is routinely updated to help manage the overlapping program management cycles for several fiscal years simultaneously. It provides much of the information required for supporting the SMS planning, formulation, execution, and evaluation cycle at all levels within EERE including the program level.

Key benefits of EIS include:

- Comprehensive reporting coverage
- Dynamic, multi-object reports
- Multi-lingual out-of-the-box inquiries
- Completely web-based
- Proven scalability
- Flexible report presentation
- Improves EERE program and project management

### **5.2.3 WinSAGA**

The system used by the ROs to manage the financial assistance projects assigned to them for oversight is the Windows version of the Systems Approach to Grants Administration (WinSAGA). This comprehensive database program was created in the mid-1980s to perform the following functions: 1) store basic financial assistance information including obligations, costs, payments, and program milestones for SEP and WAP, 2) generate the forms required to the application and awards of grants and cooperative agreements (such as the procurement request, NFAA, IPAR and budget pages that are part of the award package), and 3) to

interface with other Departmental systems such as PADS and STARS to avoid multiple points of entry for the same data elements. Project Managers and PMC Contracting Officers use this system to manage the financial assistance awards and projects for the WAP, SEP, and Special Project programs. Another key feature of this system is that the majority of State Energy Offices and State Weatherization Offices also use this system to input their annual application, modifications, project milestones, and quarterly costs, which are transferred to the ROs for review and acceptance. Each Regional Office database is then consolidated into one master database maintained in DOE/HQ.

#### **5.2.4 Procurement Assistance Data System (PADS)**

The monthly PADS download includes the location, contract value, start date, end date, and a wide range of other data regarding each EERE procurement. This download should be used monthly throughout EERE in the execution part of the cycle as a means to 1) ascertain the status of all current procurements; 2) plan procurement actions required to replace expiring procurements; and 3) answer questions regarding the location (state or congressional district) or type (small business set aside) of EERE contracts, cooperative agreements, and grants.

#### **5.2.5 The Standard Accounting and Reporting System (STARS)**

STARS is an online, fully-interactive, agency-level accounting system, designed for and oriented to accounting personnel. STARS provides DOE with a standard automated system that performs the accounting and financial reporting functions at all of the DOE Federal offices. Information/data provided by STARS to support EERE project management includes the following:

- Cumulative Obligations and Costs
- Current Year Obligations and Costs
- Amount Reserved for the Current Year
- Object Class
- Contract Identification ( ) and CID Type

# Glossary of Terms

## General

**Corporate Planning System (CPS)** – Comprehensive EERE-wide program and project management information system and tool for producing and managing Congressional budget Requests, spend plans, portfolio information, Multi-year Program Plans, Annual Operating Plans, and automated program guidance letters. The intent of CPS is to provide a seamless operational and managerial link between all EERE program and project activities.

**Federally Funded Research and Development Centers (FFRDCs)** – A unique class of research and development (R&D) facilities that share aspects of private and public ownership. They are also known as National Laboratories.

**Program** – An organized set of ongoing activities directed toward a common purpose or goal undertaken in support of an assigned mission area. There are 11 programs in EERE.

**Program Manager** – Responsible for managing the assigned program, includes activities to plan, lead, implement, and control the subprogram, projects and activities that make up the program. Program Managers report to the Deputy Assistant Secretary.

**Strategic Management System (SMS)** – An organizational management framework that integrates planning, budget formulation, budget execution, and analysis and evaluation.

**Technology Development Manager** – Responsible for managing technology development sub-Programs. Technology Development Managers report to the respective Program Managers in HQ.

## Project Management

**Annual Operating Plan (AOP)** – An organizational one-year plan that identifies what is to be accomplished, when, and what types of resources during the planned execution year (also Operations Plan, Program Execution Plan).

**Multi-year Program Plan (MYPP)** – A plan that identifies the program's quantitative technical goals, objectives, strategies, milestones and resources required each year for the next five years.

**Project** – EERE HQ defines a project as a single or group of agreements as defined in the Annual Operating Plan; the PMC will fully implement these program elements that will have their own discrete beginning, end, and specific outcome.

**Project Management** – The application of knowledge, skills, tools, and techniques to project activities to meet the project requirements.

**Project Manager** – The individual responsible for managing a project with the overall responsibility for project schedule, cost, and technical performance. EERE Project Managers reside in the EERE PMC.

## Procurement Management

**Acquisition Contract** – Vehicle used when the principal purpose is to acquire goods and services for the direct benefit or use of the Federal Government. This is the classic buyer/seller relationship. Within DOE, contracts usually result from the issuance of a Request for Proposal (RFP).

**Acquisition Plan** - A plan that identifies what is to be acquired and how including the source, contract method and contract type.

**Application** – An offer by an entity to perform work requested by the Government via a financial assistance procurement.

**Award** – The written document executed by a DOE Contracting Officer, after an application is approved, which contains the terms and conditions for providing financial assistance to the recipient.

**Awardee** – The organization, individual, or other entity that receives an award from DOE and is financially accountable for the use of any DOE funds or property provided for the performance of the project, and is legally responsible for carrying out the terms and conditions of the award. (Same as Recipient)

**Contracting Officer (CO)** – The CO has the primary authority for entering into, administering, and/or terminating contracts and financial assistance.

**Contracting Officer's (Technical) Representative (COR)** – A person designated by an acquisition procurement vehicle to represent the Contracting Officer regarding technical project matters.

**Contractor** – An entity that agrees to or is performing work under an acquisition award.

**Cooperative Agreement** – A form of financial assistance in which the Government determines that there is a need for substantial involvement between the recipient and the agency during performance. Substantial involvement exists if (1) responsibility for the management, control, or direction of the project is shared by DOE and the recipient; or (2) responsibility for the performance of the project is shared by DOE and the recipient.

**Cooperative Research and Development Agreement (CRADA)** – An agreement to collaborate on a specific research project usually among several parties. No money exchanges hands with this type of agreement.

**Corporate Review Budget** – The process that converts the Department's planning and programming decisions into the budget for Departmental-level review.

**Financial Assistance** – Vehicle takes two forms: a Grant or a Cooperative Agreement. Assistance is used when the principal purpose of the relationship is to effect a public purpose of support or stimulation.



**Grant** – The Grant is the form of assistance used unless there is need for substantial involvement between the recipient and the agency during performance of the Grant.

**Memorandum of Understanding/Agreement (MOU/MOA)** – A written agreement between the Department and other signatory authorities which broadly state the basic understanding between the parties of tasks to be accomplished and describe the methods for accomplishing these tasks. Parties to these agreements may include other Federal agencies, local, State, international, tribal, or other government entities; the private sector; and educational institutions. An MOU/MOA is not considered a binding contract. It cannot be used to obligate or commit funds or be used as the basis for the transfer of funds between or among the parties.

**Notice of Program Interest (NOPI)/Unsolicited Proposal** – Broad areas needing investigation are published to stimulate the flow of unsolicited proposals. See DEAR 915.5-Unsolicited Proposals.

**Procurement Vehicle** – A generic term used to refer to a contract or financial assistance award.

**Program Opportunity Announcement (PON)** – This announcement is used to accelerate the demonstration of the technical feasibility and commercial application of beneficial technologies. See DEAR 917.72. Financial Assistance and contracts may be employed.

**Program Research and Development Announcement (PRDA)** – Financial Assistance and contracts are awarded to research specified areas of interest. See DEAR 917.73.

**Project Officer (PO)** – A person designated by a financial assistance procurement vehicle to represent the Contracting Officer regarding technical project matters.

**Proposal** – An offer by an entity to perform work requested by the Government via an acquisition procurement. Proposals can either be competitive or non-competitive and may be solicited or unsolicited.

**Recipient** – The organization, individual, or other entity that receives an award from DOE and is financially accountable for the use of any DOE funds or property provided for the performance of the project, and is legally responsible for carrying out the terms and conditions of the award. (Same as Awardee)

**Research Opportunity Announcement (ROA)** – DEAR 935.016 Defines the ROA as a method of contracting for research through a broad agency announcement. Competitive proposals are submitted in response to broad mission and program-level objectives.

## **Financial Management**

**Accrued Cost** – Refers to the value (purchase price) of goods and services used, or consumed, within a given period, regardless of when paid.

**Allotment** – An authorization by either the agency head, or another authorized employee, to subordinate agency employees to incur obligations within a specified amount pursuant to an

OMB apportionment or reapportionment action, in accordance with OMB Circular No. A-34 or other statutory authority making funds available for obligation. Allotments convey legal limitations and are made on HQ F 2260.2, Advice of Allotment.

**Approved Funding Program (AFP)** – Refers to a document issued to DOE Elements setting forth the funds available for obligation and expenditure (not to exceed the amount allotted) in each appropriation account. It specifies the obligation control levels applicable to each program, subprogram, or activity. The approved funding program represents the detailed breakdown of the allotment for program management purposes. AFPs for operating expenses, plant and capital equipment, and reimbursable work are issued monthly, as necessary, by the Chief Financial Officer (CFO).

**Authorization** – The basic substantive legislation enacted by Congress that sets up or continues the legal operation of a Federal program or agency either indefinitely or for a specific period of time or sanctions a particular type of obligation or expenditure within a program.

**Budget and Reporting (B&R) Classifications** – Defines the coding structure that parallels Department activities and programs. This structure is used for executing the budget; reporting actual obligations, costs, and revenues; and controlling and measuring actual versus budgeted performance.

**Budget Authority** – The authority provided by law to enter into obligations that will result in immediate or future outlays of government funds. The basic forms of budget authority are appropriations, contract authority, borrowing authority, and authority to obligate and expend offsetting receipts and collections. Budget authority may be classified by the period of availability (one-year, multiple-year, no-year); by the timing of Congressional action (current or permanent); by the manner of determining the amount (definite or indefinite); or by its availability for new obligations.

**Continuing Resolution** – Refers to legislation enacted by Congress to provide budget authority for specific ongoing activities and for a specific period of time in cases where the regular yearly appropriation for such activities has not been enacted by the beginning of the fiscal year. A continuing resolution usually specifies a maximum rate at which the Department may incur obligations based on levels specified in the resolution. The levels specified may be current rate, the lower of the amounts provided in appropriation bills passed in the House or Senate, or any other basis set forth in the continuing resolution.

**Cost** – The cash value of the resources (used or consumed) allocated to a particular program. This value is often different from obligations for a program because of undelivered orders.

**Cost Share** – The amount of resources; e.g., cash, labor hours, equipment, expressed as a financial value, that the contractor or recipient is offering as part of the project.

**Obligation** – The amounts of orders placed, contracts awarded, services received, and similar transactions during a given period that will require payments during the same or a future period. For example, once a Procurement Request (PR) has been certified and reserved, it goes to Procurement (AAD), and a contract is awarded. Upon award, an official obligation is then entered into the accounting system to reflect the award. At this point, the reservation no longer

appears in the accounting system.

**Program Execution Plan (PEP)** – A report generated from the Business Information System (BMIS) that provides budget formulation and execution data.

**Reservation** – May also be referred to as a “commitment.” The terms may be used interchangeably and represent an accounting transaction which reserves or earmarks funding in anticipation of their being obligated. For example, a PR coming through the system will be certified for funds availability and entered into the accounting system as a reservation. This action ensures the funds will not/can not be “re-used” for another purpose.

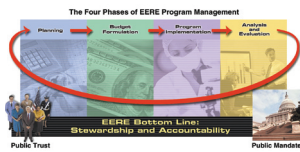
**STARS** – The Official DOE accounting system.

**Total Obligational Authority** – available to the Department consists of all new budget authority plus the unexpired, unobligated balances brought forward from previous years for obligation, and reimbursements authorized to be credited to a specific account or fund during the fiscal year.

**Uncosted** – (unexpended balance) designates the portion of budget authority that is allocated and obligated, but for which not all goods or services have been received. For example, when a contract has been awarded (obligated), costs are incurred as the contractor performs work. So at the end of the fiscal year, if work remains to be performed on that contract, it is an indication that the contractor has not used all the funds provided (obligated) and consequently has an Uncosted balance.

**Unobligated** – Designates the portion of budget authority that is allocated during the fiscal year, but has not yet been obligated (awarded). In one-year or annual accounts, the unobligated balance expires (i.e., ceases to be available for obligation) at the end of the fiscal year, except for valid obligation adjustments associated with that fiscal year. In multiple-year accounts, the unobligated balance may be carried forward and remain available for obligation for the period specified. In no-year accounts, the unobligated balance is carried forward and available for obligation indefinitely until specifically rescinded by law or until the purposes for which it was appropriated have been accomplished.





In the following appendices, the project management cycle is represented by flow charts and descriptive information for each phase of the EERE Strategic Management System. Appendix 1 is a flow diagram covering the project management process steps as they progress from Planning, through Budget Formulation, Program Implementation, and Analysis and Evaluation.

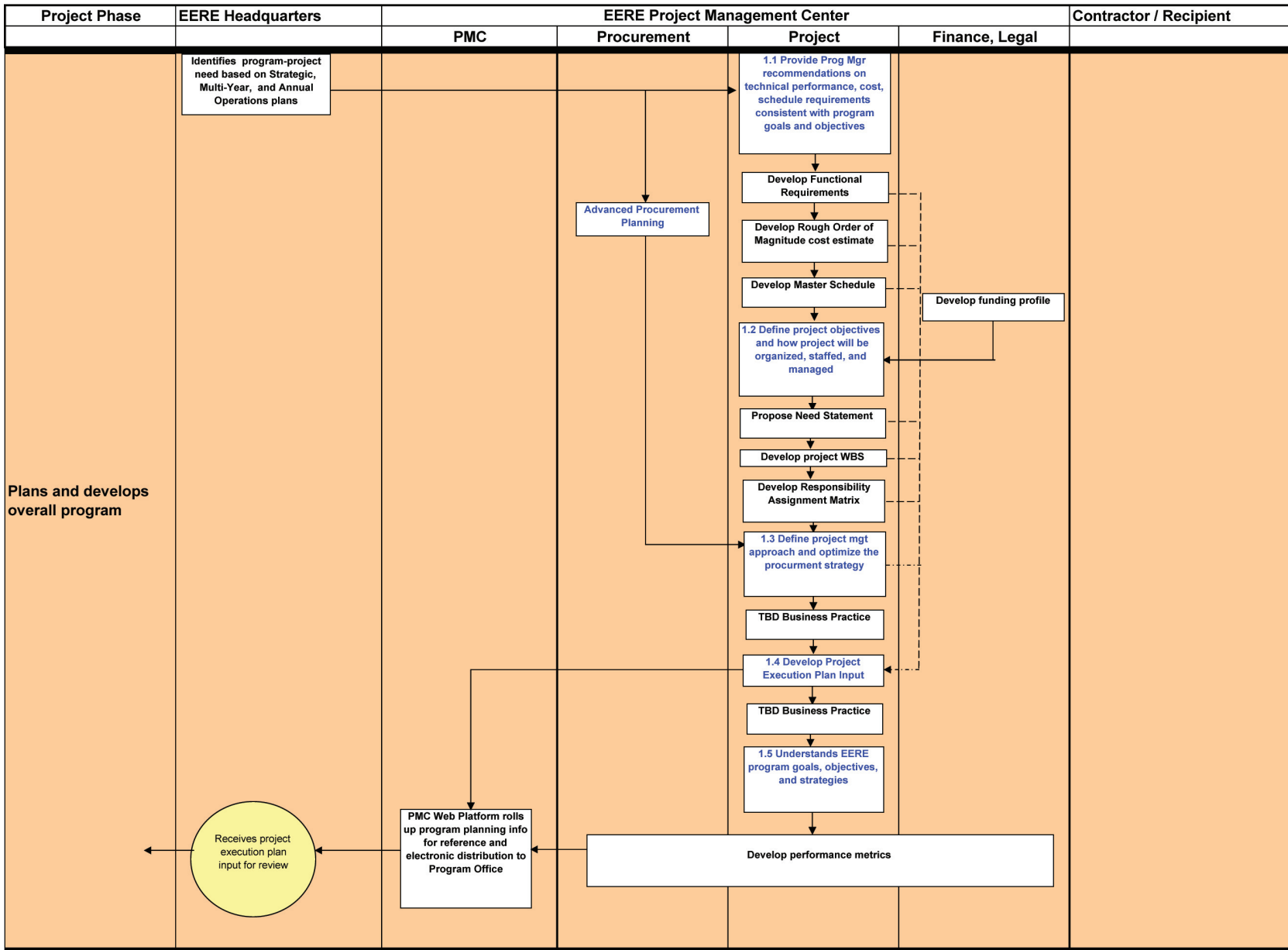
Appendix 2 contains detailed descriptive information on the major essential steps. Each of the flow blocks in Appendix 1 with titles highlighted in blue is linked to a detailed descriptive template in Appendix 2. These templates include information describing the process steps in terms of the background, purpose and scope, procedures, tool/templates, and repositories where additional descriptive information may be found. Where these repositories are accessible online, the links are also shown in blue text.

Appendix 3 lists standardized PMC processes and reports and provides links to related documents.

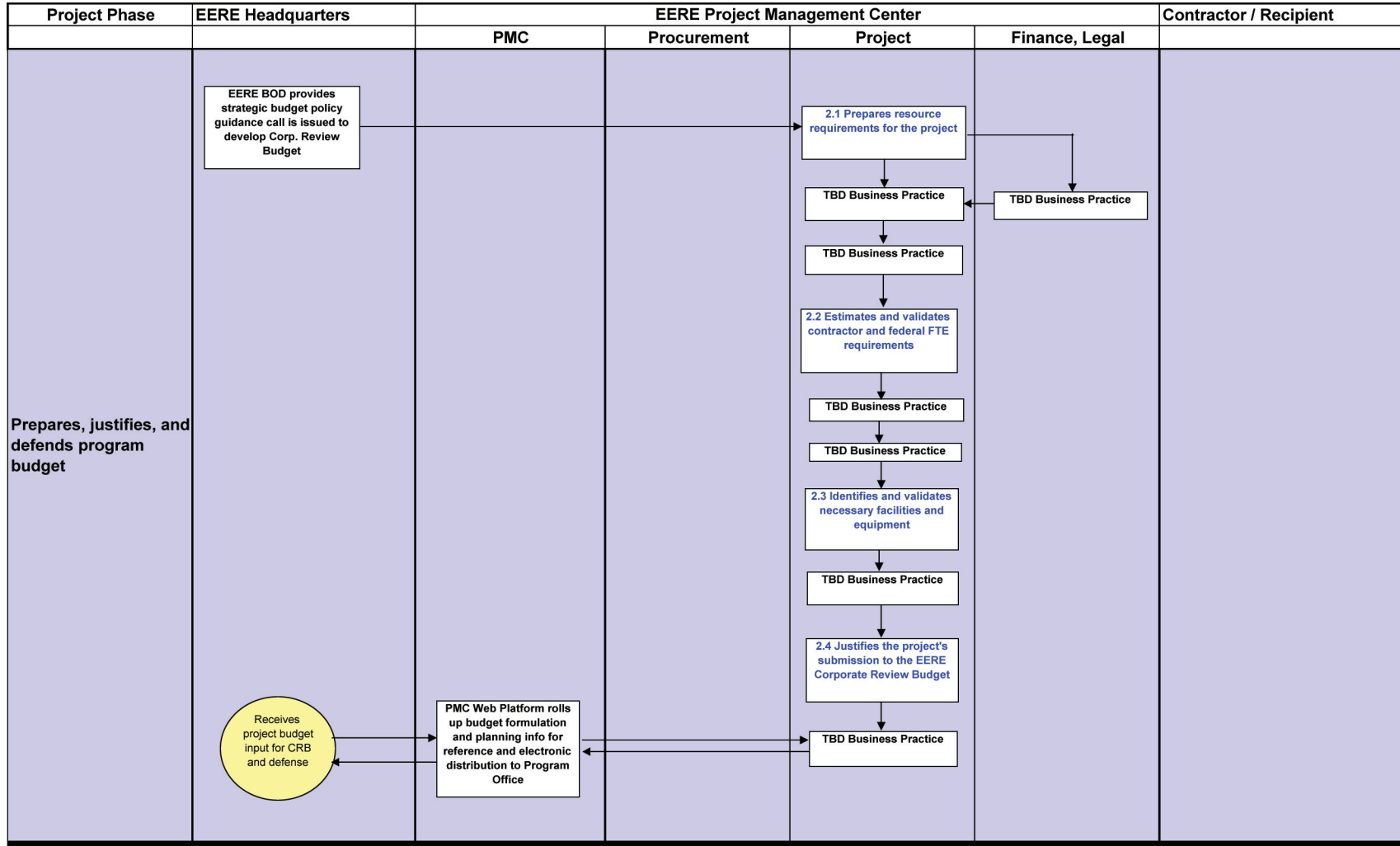




## Appendix 1 — EERE Project Management Workflow

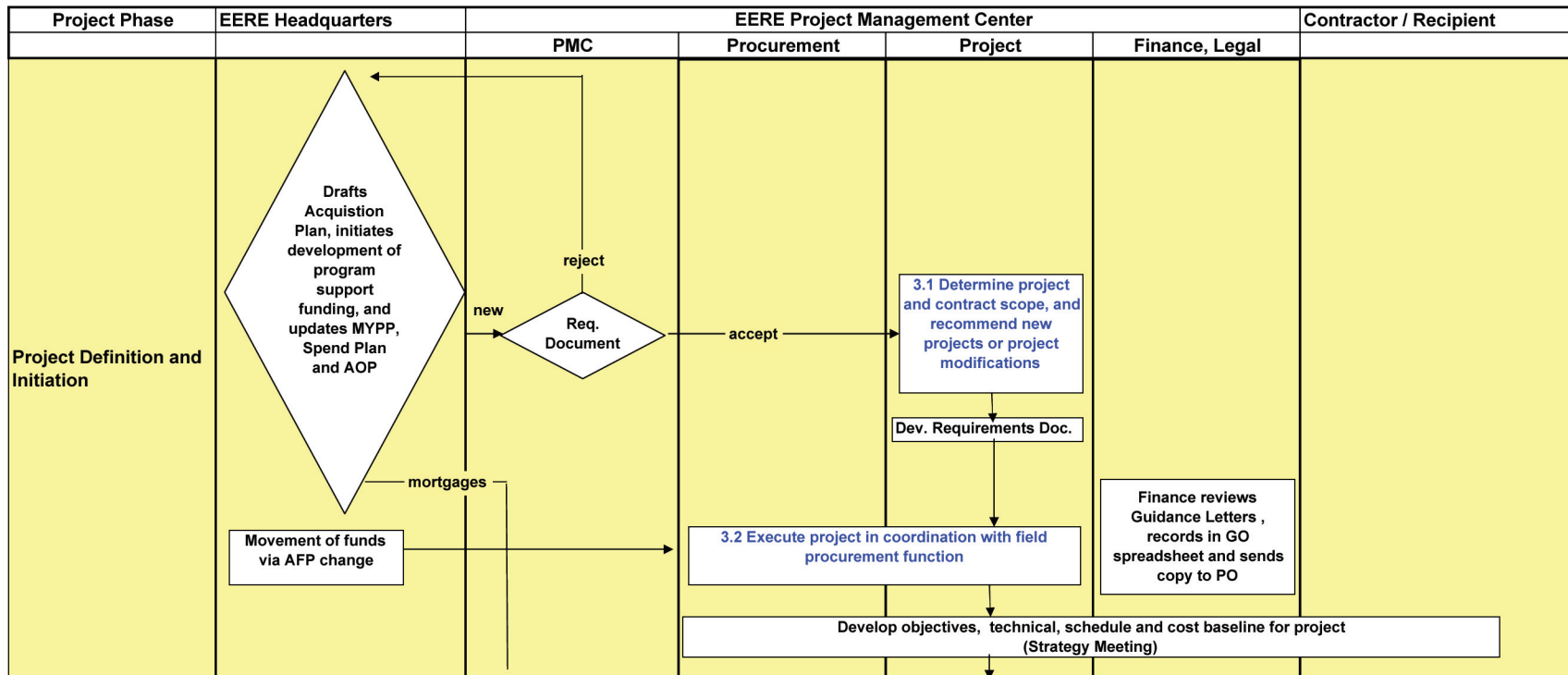


## EERE Project Management Workflow



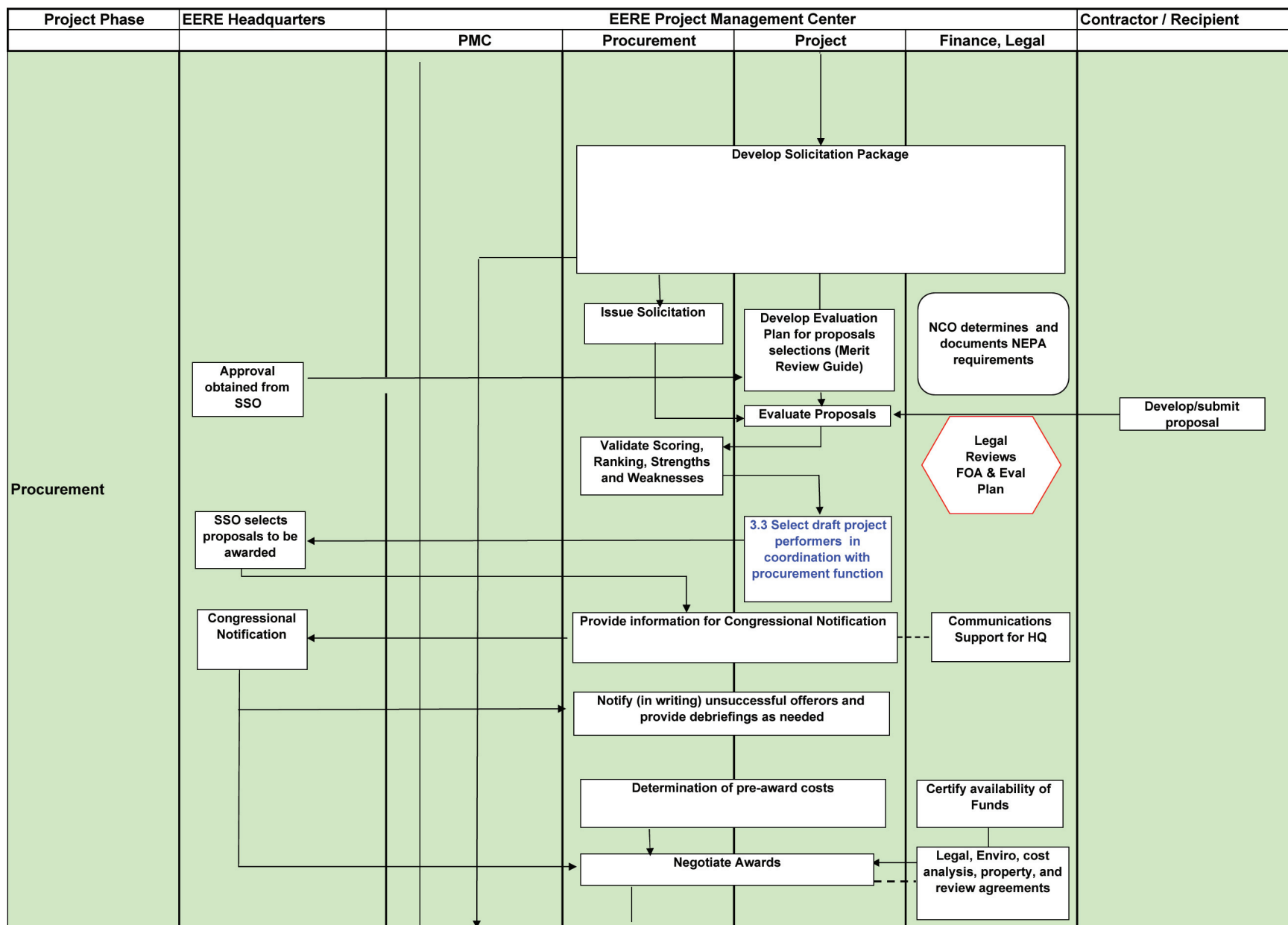
## SMS Phase 2.0 — Budget Formulation

## EERE Project Management Workflow



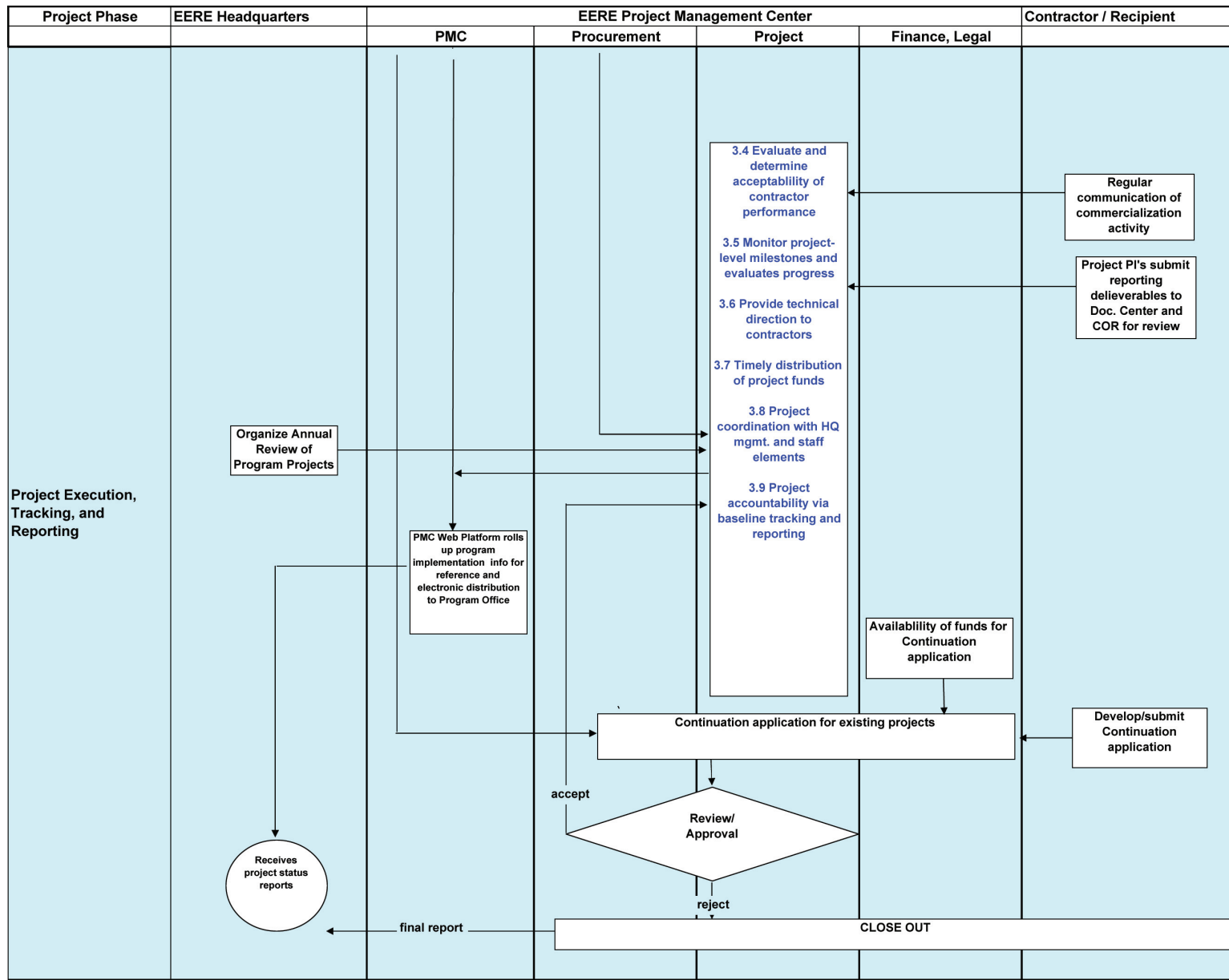
## SMS Phase 3.0 — Program Implementation

# EERE Project Management Workflow



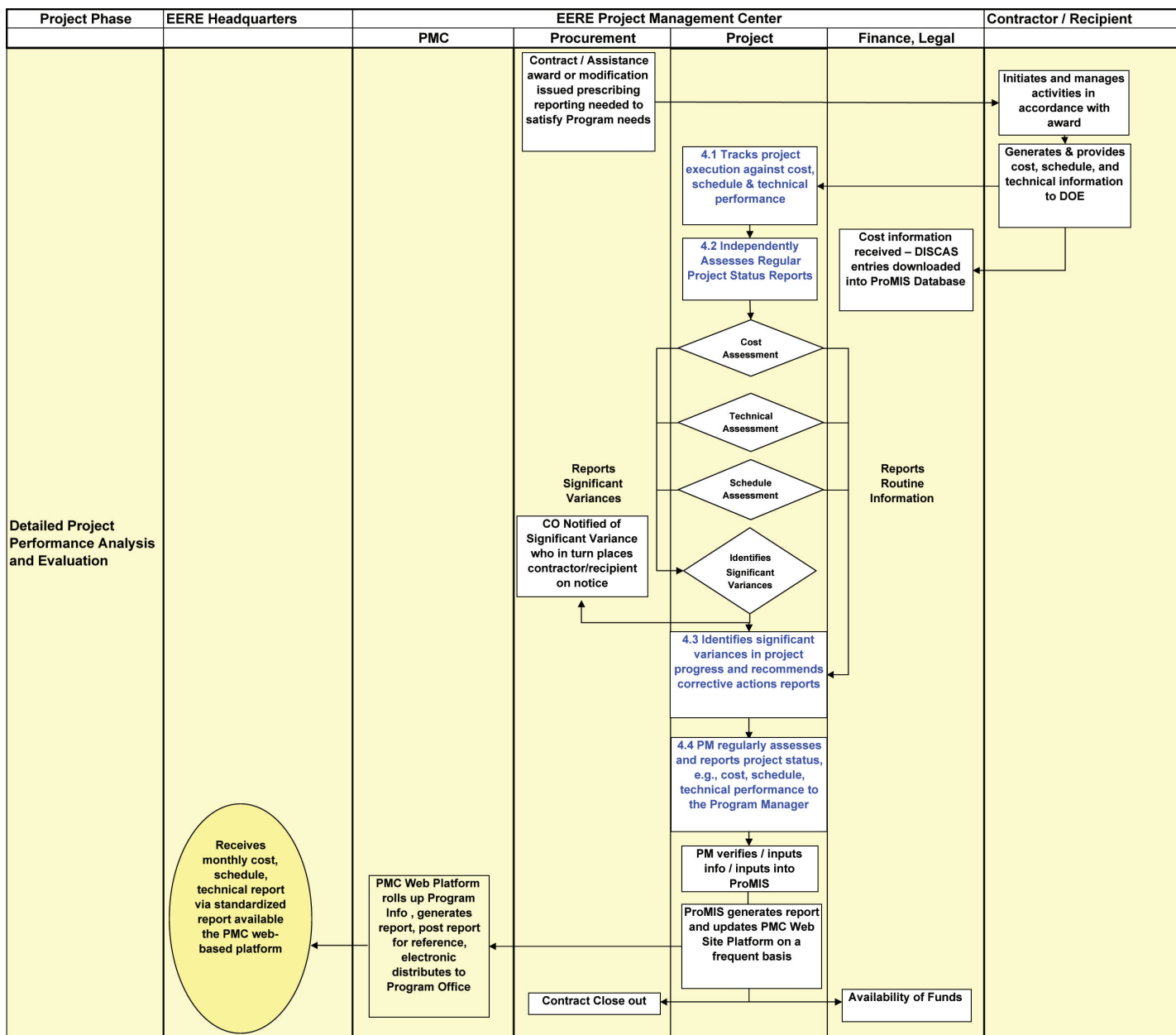
SMS Phase 3.0 — Program Implementation (cont.)

## EERE Project Management Workflow



## SMS Phase 3.0 — Program Implementation (cont.)

# EERE Project Management Workflow



## SMS Phase 4.0 — Program Analysis and Evaluation



## Appendix 2 — Process Descriptions for Four SMS Phases

### PMG Phase 1.0: Program Planning — “Plans and Develops Overall Program”

Element Topics included:

- 1.1 Provide Program Manager recommendations on technical performance, cost, schedule requirements consistent with program goals and objectives
- 1.2 Define project objectives and how project will be organized, staffed, and managed
- 1.3 Define project management approach and optimize the procurement strategy
- 1.4 Develop Project Execution Plan
- 1.5 Understand EERE program goals, objectives, and strategies

**Background:** Program planning is a cyclical process that begins with the Program Manager providing the goals and objectives for the program along with the budget mark from the Multi-year Program Plan to the Project Manager. The Project Manager then develops a Functional Requirements Statement and associated budget and master schedule. From that the project objectives, management approach, procurement strategy, and the Project Execution Plan are developed. New project work to be initiated is identified after a review of existing mortgages. Performance metrics are developed for all work. These efforts are subsequently used to develop the Project Implementation Plan and the Advanced Procurement Plan. All planning products are then returned to the Program Manager via the PMC for review and approval. The Program Manager then makes any revisions needed to the MYPP.

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**Element: 1.1 Provide Program Manager recommendations on technical performance, cost, schedule requirements consistent with program goals and objectives**

**Description/Scope:** This element will provide the Program Manager with recommendations on the functional requirements and associated budget and schedule to fulfill the program's goals and objectives. These recommendations will include existing projects that will be continued and new project areas needed to augment existing work.

**Guiding Principles:** The following guiding principles will be followed in order to meet the objectives of this topic:

- Develop a comprehensive Functional Requirements Statement that addresses all aspects of the Program's goals and objectives;
- Develop a high-level budget estimate that accounts for existing mortgages and projected new work; and
- Develop a master schedule that optimizes time and financial resources by taking advantage of parallel scheduling and other controls wherever possible.

**Procedures:** The following is the procedure for Element 1.1:

- The Program Manager provides the current statement of the program's goals and objectives along with the budget mark from the MYPP to the Project Manager, Procurement, and Budget/Finance representatives.
- The PMC Project Manager then develops a Functional Requirements Statement that addresses all goals and objectives of the program.
- The Procurement representative begins preparation of the Advanced Procurement Plan.
- The PMC Project Manager then conducts an analysis of existing mortgages to determine which efforts continue to support the program's goals and objectives and which do not.
- The PMC Project Manager then prepares an ROM estimate for all project work needed delineating work already contracted for from new work.
- The PMC Project Manager develops a Master Schedule for all work. The schedule incorporates existing efforts and new project work. The schedule reflects sequential efforts that are needed while optimizing the schedule with parallel efforts wherever possible.
- The Functional Requirements Statement, ROM budget estimate, and Master Schedule become the inputs to Element 1.2 "Defines Project Objectives and how the project will be organized, staffed, and managed."

**Tools/Templates:** Program Goals and Objectives Statement, MYPP

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**Element: 1.2 Defines project objectives & how project will be organized, staffed, and managed**

**Description/Scope:** Element 1.2 – consists of defining the goal of the effort to be completed by PMC to meet the identified need of the program, identifying the individual tasks to be conducted, establishing the sequencing and scheduling of tasks, and establishing personnel requirements and specific personnel assignments to most effectively accomplish the effort.

**Guiding Principles:** The following guiding principles will be followed in order to meet the objectives of this topic:

- Develop a Need Statement that clearly establishes the programmatic need and requirements for all existing projects and new initiatives;
- Develop a Work Breakdown Structure (WBS) that provides a clear and focused listing and sequencing of tasks necessary to maintain existing and initiate new projects; and
- Develop a Responsibility Assignment Matrix that provides for the most efficient and synergistic utilization of personnel resources necessary to accomplish the WBS.

**Procedures:** The following is the procedure for Element 1.2:

- Based on the Functional Requirements Statement and consistent with the Advanced Procurement Plan and Master Schedule developed in Element 1.1, the PMC Program Coordinator and Project Managers develop a Need Statement that identifies and discusses the technical and funding needs for all ongoing projects and new initiatives necessary to meet the objectives of each program area.
- Project Manager and Contract Specialist assignments are reviewed by their respective Division Directors who revise and assign duties as necessary for the best utilization of available personnel resources to meet the demands for ongoing project and new initiatives.
- For each ongoing project identified in the Need Statement, the assigned Project Manager develops a WBS identifying all technical, contractual, funding, and schedule-related actions necessary for the successful continuation of the work.
- For each new initiative identified in the Need Statement, the PMC Program Coordinator and Project Manager develop a Requirements Document identifying in very broad terms the technical, schedule, and financial requirements for that initiative.
- The Project Manager, with input from the Contract Specialist, develops a preliminary WBS for all new initiatives to identify, sequence, and schedule all required actions necessary to implement the initiative.
- The Project Manager and Contract Specialist develop a Responsibility Assignment Matrix for establishing the person responsible for each action identified in the WBS.
- The Requirements Document, WBS, and Responsibility Assignment Matrix are used to formulate the Procurement Strategy Document as discussed in Element 1.3.

**Tools/Templates:** PMC Guidelines of RD&D Procurement Process, PMC Flowchart for Overall RD&D and Site Support Procurement Process, and PMC Procedure for Planning and Evaluation Processes

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**Element: 1.3 Define project management approach and optimize the procurement strategy**

**Description/Scope:** TBD

**Guiding Principals:** TBD

**Procedure:** TBD

**Tools/Templates:** TBD

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**Element: 1.4 Develop Project Execution Plan**

**Description/Scope:** Element 1.4 – consists of a definitive accounting of how the funding for a specific program area is planned to be obligated throughout the upcoming fiscal year among contractors, solicitations, in-house R&D, and National Laboratories, when the obligation is expected to occur, and the responsible program person.

**Guiding Principles:** The following guiding principles will be followed in order to meet the objectives of this topic:

- Develop a balanced technical program that most effectively utilizes available in-house R&D, National Laboratory, and contractor resources;
- Develop a listing of planned accomplishments that is practical and achievable; and
- Develop a Budget Implementation Plan that adequately supports each planned activity to provide for the full obligation of available funds and the continuity of project activity, and minimize end of fiscal year (FY) uncosted balances.

**Procedures:** The following is the procedure for Element 1.4:

- The Project Manager, in conjunction with the contractor, reviews and re-establishes the funding requirements and the planned major milestones/accomplishments and completion dates for the upcoming fiscal year for each ongoing project.
- The PMC Program Coordinator and Project Managers roll up the funding obligations required for the ongoing projects to determine the mortgage requirement for the upcoming fiscal year.
- The PMC Program Coordinator and Project Managers determine the funding allocations available for each of the new project initiatives based on the expected program appropriations and the existing mortgages.
- Based on the Project Execution Plan for the current fiscal year and the Advanced Procurement Plan developed in Element 1.1 the PMC Program Coordinator compiles a listing of all planned projects/activities, milestones/accomplishments, and expenditures in the program area to create the Project Execution Plan for the upcoming fiscal year.
- The Project Execution Plan is reviewed and approved by Technology Manager.
- The Project Manager determines the timing of the financial obligations for each project.
- The Project Manager ensures that all financial and technical information is up-to-date.

**Tools/Templates:** Prior year Program Execution Plan and Advanced Procurement Plan

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**Element: 1.5 Understands EERE program goals, objectives, and strategies**

**Description/Scope:** This element involves the development of performance metrics to be used by the Program Manager in evaluating projects in achieving the program goals and objectives.

**Guiding Principals:** The following guiding principals will be used in the development of performance metrics:

- Each metric will address a specific program goal and/or objective;
- All program goals and objectives will have at least one associated performance metric; and
- The metrics will be selected and designed to measure tangible benefits to the public.

**Procedure:** The following procedure will be used in the development performance metrics:

1. The Project Manager will use the Program Goals and Objectives Statement as guidance in the development of performance metrics.
2. With the assistance of the Procurement representative the Project Manager will develop at least one performance metric for each program goal and objective. Each metric must be a meaningful and tangible measure of benefit to the public for which data is readily available. Whenever possible the metrics should be expressed as
  - \$ public benefit
  - \$ DOE investment

The Program Performance Metrics are inputted in the PMC.



## PMG Phase 2.0: Budget Formulation — “Prepares, Justifies, and Defends Program Budget”

### Element Topics Include:

- 2.1 – Prepares Resource Requirements for the Project
- 2.2 – Estimates and Validates Contractor and Federal FTE Requirements
- 2.3 – Identifies and Validates Necessary Facilities and Equipment
- 2.4 – Justifies the Programs Submission to the EERE Corporate Review Budget

**Background:** The DOE budget process begins each spring with the preparation of the DOE internal budget called the Corporate Review Budget (CRB). This budget is for the fiscal year that is two years away (e.g., the budget process beginning in the spring of 2002 is for FY2004). The timeline for the budget formulation process is described in Figure 1 – Standard Budget Formulation Timeline.

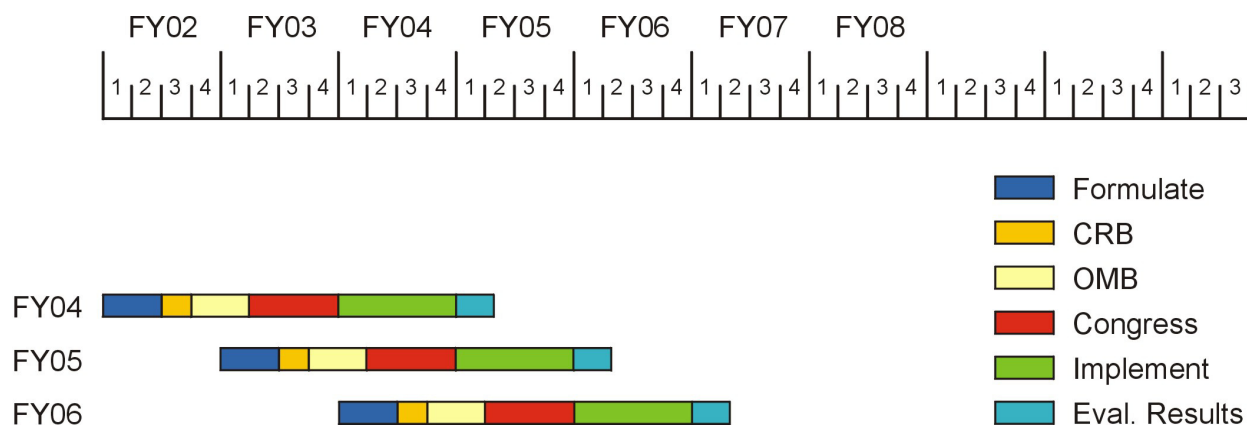


Figure 1 – Standard Budget Formulation Timeline

Prior to developing the first draft of the budget, the HQ Program Manager gathers input from appropriate personnel at DOE HQ, the labs and field offices as well as internal planning, primarily the MYPP. Program Managers should already have much of this information from the multi-year program planning process that occurs prior to the Budget Formulation Process.

The Budget Process begins when the DOE controller issues the call for development of the CRB and guidance for its preparation.

The primary “steps” in the process involve the following:

- EERE Board of Directors provides strategic policy and budget guidance
- The Program Manager refers to internal planning
- The Program Manager gathers input from Labs and Field Offices
- DOE Controller issues call for development of the CRB

\*\*\*\*\*

**Element: 2.1 Prepares resource requirements for the project**

**Description/Scope:** Element 2.1 – consists of development of estimates for the following two project “categories”:

- Mortgages for existing projects that will continue in budget FY
- Mortgages for projects selected in program solicitations and awarded in budget FY-1

The HQ Program Manager will use these estimates to help identify the anticipated funding available for new start projects in the Budget Formulation FY. The HQ Program Manager will reference the MYPP and the anticipated funding available to determine what solicitations will be initiated in Budget Formulation FY-1 for awards in the FY.

**Guiding Principles:** The following guiding principles will be followed in order to meet the objectives of this topic:

- Develop Project Funding Plans that maximize program funding;
- Develop logical Statements of Work (used generically to refer to work for all types of procurement vehicles) that contain decision points and milestones; and
- Initiate project evaluations so only projects progressing toward program goals are continued.

**Procedures:**

- **Project Funding Plan Development:** Prior to project award, PMC Project Managers will develop project funding plans that would only fund projects 2 – 3 months into subsequent FYs. On a quarterly basis, Project Managers will re-evaluate the funding plan, versus current costs, to determine if the plan still meets these objectives. Any changes to a project funding plan will be coordinated with the PMC Program Coordinator and Program Lead. The PMC Project Managers will ensure that project funding plans are up-to-date in ProMIS.
- **Program Solicitation Funding Profile:** The PMC Program Leads will develop a funding profile for program solicitations with expected awards in Budget Formulation FY-1. On a quarterly basis, the Program Leads will re-evaluate the funding profile.
- The PMC Program Leads will consolidate project funding plans and program solicitation funding profiles. The Program Leads and Program Coordinator will review and validate the information.
- PMC Project Managers will develop Statements of Work that encompass project decision points for evaluation of projects. Decision points will typically be inserted no more frequently than 6 months and no less frequent than 18 months. The PMC Project Managers will coordinate project reviews to determine if the projects are still relevant to the programs.
- PMC Project Managers will develop project milestones that support program milestones, are good indicators of project success, and can be evaluated at decision points. Milestones will be a key factor in determining the continuation of projects.
- PMC Project Managers will perform a project evaluation to assess performance versus cost and schedule plans. The results of the evaluation may require modifications to funding plans, milestones, or other baseline factors.

**Tools/Templates:**

- ProMIS will serve as the overall repository for project information
- Standardized reports will be established within the PMC electronic platform

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**Element: 2.2 Estimates and validates contractor and federal FTE requirements**

**Description/Scope:** Element 2.2 – consists of development of estimates of federal and contractor personnel to manage and support management, respectively, of projects and programs. The estimates will be based on the amount of work, e.g., projects and solicitations to be managed, and projections of needed personnel based on past experience.

**Guiding Principles:** The following guiding principles will be followed in order to meet the objectives of this topic:

- Obtain full cost recovery;
- Accurately track personnel time, travel, and training needs; and
- Application of “staffing models” to determine staffing needs.

**Procedures:**

- The PMC Program Coordinators will develop, along with input from PMC Financial Management Division, a logical process and supporting procedures that allows PMC personnel to record time worked on EERE activities.
- All PMC personnel will accurately track time spent working on EERE activities, per the process and supporting procedures developed.
- The PMC Program Coordinators will develop “models” that determine amount of effort for a given type of activity; e.g., management of different award types and management of solicitations. The PMC Program Coordinators will assess and refine these models on a semi-annual basis to provide better estimates of staffing needs. The assessment will be based on the current and past year’s workload and staffing.
- The PMC Program Coordinators, using information from “2.1 - Prepares Resource Requirements for the program,” will determine the projected workload for the Budget Formulation FY.
- The PMC Program Coordinators will use the staffing models and the projected workload to determine staffing requirements for the Budget Formulation FY.
- The PMC Program Coordinators will review the staffing requirements with PMC Senior Managers and with HQ Program Managers.
- The PMC Program Coordinators will discuss other PMC responsibilities with HQ Program Managers to determine if additional staff will be needed to support field implementation of the programs. These other responsibilities may include, but are not limited to: development of annual operating and MYPPs, coordination of or participation in workshops and conferences, Web site development, and development of program documents.

**Tools/Templates:**

- Time and Attendance system will provide method of tracking personnel time and reporting capabilities.
- Standardized reports will be established within the PMC electronic platform

\*\*\*\*\*

**Element: 2.3 Identifies and validates necessary facilities and equipment**

**Reference:** OMB Circular A-11, Part B: Planning, Budgeting, and Acquisition of Capital Assets, EERE Program Management Guide (specifically Section 4.3 and Appendix A), and Topic 2.1 Prepare Resource Requirements for the Program, and DOE Manual 413.1-1 Project Management for the Acquisition of Capital Assets (Chapter 8, Project Budget Development)

**Description/Scope:** The EERE Program Managers are responsible to provide overall policy and direction, and gather input from labs and field offices to support preparation of the CRB. A portion of the CRB includes accounting for expected capital and equipment needs to include construction, purchase or leasing of facilities; and acquisition of major test equipment or information technology systems based on information developed during Topic 2.1 Prepare Resource Requirements for the Program. In support of their responsibility, PMC Project Managers are responsible to identify all capital and equipment needs and perform the necessary resource and up-front acquisition planning consistent with OMB A-11 and EERE program planning and guidance.

**Guiding Principles:** The following guiding principles include:

- Planning consistent with OMB Circular A-11 and EERE strategic objectives and multi-year program planning, will be performed during budget formulation activities to support timely acquisition of capital assets to include facilities and equipment related to:
  - Science and technology base activities (e.g., major piece of in-house research test equipment)
  - Federal program/project management activities (e.g., office building)
  - Ancillary operations and support activities (e.g., tactical operations center)
- Planning will include description of capital asset, purpose/scope, lease/buy/build considerations, schedule/funding profile, estimated cost, and justification (or Construction Project Data Sheets or Exhibits 53/300 when required).

**Procedures:** Focus will be on Project Managers being aware of expected capital and equipment needs and being prepared to respond to annual data calls in support of CRB. Specifically, a Project Manager will perform the following tasks:

- Coordinate with PMC management in identifying current and projected capital and equipment needs.
- Recognize types and cost thresholds and complete requisite data sheets/exhibits/forms.
  - CPDS for capital construction projects/facilities
  - Exhibit 53/300 for IT
  - Informal memo to program/project lead for all other capital/equipment requirements.
- Ensure planning includes all information necessary to adequately inform decision maker of:
  - Basic need for capital/equipment acquisition tied to corporate strategy
  - Justification
  - Applicable performance standards
  - Recommended procurement strategy(s)
  - Estimated life-cycle cost to include government furnished property, software licenses, D&D, disposal, etc

**Tools/Templates:**

- PMC electronic platform will serve as the overall repository for budget formulation information
- Standardized reports will be established within the PMC electronic platform

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**Element: 2.4 Justifies the program's submissions to the EERE corporate review budget**

**Reference:** DOE O 130.1, Budget Formulation, EERE Program Management Guide (specifically Section 4.3)

**Description/Scope:** The EERE Program Managers are responsible to provide overall policy and direction, and gather input from labs and field offices to support preparation of the Corporate Review Budget. PMC Program Coordinators in conjunction with Project Managers are responsible for preparing, justifying and defending the budget prior to submittal to HQ. PMC management is responsible to validate budget requests prior to submittal to HQ.

**Guiding Principles:** The following guiding principles include the following:

- Obtain full cost recover;
- Budget planning consistent with OMB Circular A-11, DOE O 130.1, and EERE strategic objectives and multi-year program planning will be performed during budget formulation and justified and defended;
- Budget requests are performance-based (i.e., results oriented) to the extent practicable;
- Justifications and descriptions depict intended program outputs and outcomes rather than inputs and processes;
- Outputs and outcomes shall be measurable and verifiable to the maximum extent practicable; and
- Cost estimates are thoroughly reviewed and deemed reasonable.

**Procedures:**

The PMC Program Coordinator will consolidate program budget requests provided by Program Leads and conduct a preliminary analysis, with support from procurement and budget/finance, to determine appropriateness of submittals and adherence to guidance and reporting requirements issued in the field budget call and other budget formulation instructions.

- The EERE Program Director will schedule panel meetings to review and validate program budget request
- The Program Coordinators revise program budget requests as required and submits to EERE Program Director for approval.

**Tools/Templates:**

- PMC electronic platform will serve as the overall repository for budget formulation information
- Standardized reports will be established within the PMC electronic platform

### **PMG Phase 3.0: Program Implementation — “Executes the Budget & Implementation”**

#### **Element Topics Include**

- 3.1 Determine project and contract scope and recommend new project modifications
- 3.2 Execute project in coordination with field procurement function
- 3.3 Select project performers in coordination with procurement function
- 3.4 Evaluate and determine acceptability of contractor performance
- 3.5 Monitors project-level milestones and evaluates progress
- 3.6 Provide technical direction to contractors
- 3.7 Timely distribution of project funds
- 3.8 Project coordination with HQ management and staff elements
- 3.9 Project accountability via baseline tracking and reporting

**Reference:** DOE project implementation is regulated by DOE Policies, Procedures, and Federal Acquisition Regulations. Relevant policies, procedures, and regulations are noted in each topic description.

**Background:** Program Implementation is the successful outgrowth of Program Planning and Budget Formulation. Program Implementation encompasses the formation of an implementation strategy that ensures that current and future projects satisfy program needs, projects are implemented in accordance with relevant policies and procedures, adequate evaluation and selection procedures are followed to ensure sound program/project decisions, project performance is monitored such that results are effectively communicated to management and program stakeholders.

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**Element: 3.1 Determine project and contract scope, and recommend new project modifications**

**Background:** Project and contract scope is developed in accordance with EERE planning and guidance. EERE guidance is obtained from (1) EERE Strategic Plan; (2) EERE Multi-Year Plans; (3) Annual Operating Plans; and (4) program Spend Plans.

**Purpose and Scope:**

- Develop and evaluate project scopes to ensure they meet the needs of EERE program(s).
- Identify where existing projects fall short or do not meet program needs; recommend modifications or alternative projects to address these needs.

**Procedures:**

- Develop an AOP – program portfolio analysis is performed to determine whether existing projects continue to meet program needs.
- Conduct Bi-Annual Program Peer Review – evaluate the quality of projects and benefits to program
- Advanced Acquisition Planning

**Tools/Templates:**

- Annual program portfolio analysis
- Program Assessment Rating Tool (PART)
- Joule milestone tracking
- Program Analysis and Evaluation procedures

**Repository:** Information is retained in a variety of formats. Specific plans and reference documents include:

- AOPs
- MYPPs
- Program Peer Review documentation
- Program/Technology Roadmaps

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**Element: 3.2 Execute project in coordination with field procurement function**

**Background:** DOE project management is performed in accordance with 10 CFR 600 which establishes the regulations for uniform policies and procedures for the award and administration of DOE grants and cooperative agreements. Contracts are administered in accordance with the Federal Acquisition Regulations (FAR) and Department of Energy Acquisition Regulations (DEAR).

**Purpose and Scope:** Manage projects in conformance with all applicable Federal Acquisition and Assistance regulations.

**Procedures:**

- Develop the Annual Advanced Procurement Plan
- Follow the PMC contract and assistance procedures as defined on the PMC Web site

**Tools/Templates:**

- PMC Web Site Procurement Desktop
- Acquisition Awards & Modifications
- Assistance Awards & Modifications

**Repository:** Information is retained in a variety of formats. Specific plans and reference documents include the following:

- Advanced Acquisition Plan
- Procurement/Project Management Documentation
  - Requirements Document
  - Procurement Strategy Template
  - Solicitation
  - Merit Review Report
  - Selection Statement
  - Award (Contract or Financial Assistance Agreement)

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**Element: 3.3 Select draft project performers in coordination with procurement function**

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**Element: 3.4 Evaluate and determine acceptability of contractor performance**

**Reference:** Office of Advanced Initiatives Operations Plan

**Background:** The President's Management Agenda encompasses five government-wide initiatives to better manage federal funding and resources:

- Strategic Management of Human Capital
- Competitive Sourcing
- Improved Financial Performance
- Expanded Electronic Government
- Budget and Performance Integration

**Purpose and Scope:**

- Monitor project technical performance, cost and schedule to ensure maximum benefit.
- Perform regular assessments of project performance to ensure research is addressing program objectives.

**Procedures:**

- Maintain effective oversight of project performance through
  - Technical reporting (monthly, quarterly, annual, topical)
  - Frequent informal communication (telephone calls, e-mail, conference attendance, etc.)
  - Financial reporting (invoice review / approval, spend plans, quarterly financial statements, etc.)
  - Site Visits
  - Peer Reviews

**Tools/Templates:**

- Annual Program Reviews
- Bi-Annual Peer Reviews
- Technical and Financial Reporting (see Reporting Requirements Checklist)

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**Element: 3.5 Monitors project-level milestones and evaluates progress**

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**Element: 3.6 Provides technical direction to contractors**

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**Element: 3.7 Timely distribution of project funds**

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**Element: 3.8 Project coordination with HQ mgmt. and staff elements**

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**Element: 3.9 Project accountability via baseline tracking and reporting**

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## **PMG Phase 4.0: Program Analysis and Evaluation: “Analyzes and Evaluates Performance”**

Element Topics include

- 4.1 Tracks project execution against cost, schedule, and technical performance
- 4.2 PO analyzes & evaluates detailed performance of the Project
- 4.3 Independently assesses regular project status reports
- 4.4 Regularly assesses and reports project status (e.g., cost schedule, technical performance) to Program Manager

### **Background:**

After award or modification, the Project Manager is responsible for managing resources consistent with the three components of the project — cost, schedule and technical progress. The Program Manager will continually evaluate progress through discussions and reviews with Project Managers, and when required, initiate corrective action to keep programs on target toward achieving the desired strategic goals.

In order to know how the project is progressing, the Project Manager must use proven tools of modern project management to monitor cost, schedule, and technical progress.

Specific procedures, such as earned value analysis for cost control, Gantt charts for schedule (time) control and cause-and-effect diagrams for quality control, when deemed appropriate, will provide the Project and Program Manager with the information they need to evaluate programs and projects within a given program.

The steps in the process include the following:

- Receiving/approving the information necessary to track project performance
- Analyzing periodic reports to determine status (actual vs. planned)
- Assessing the significance of any variances
- Reporting status and problems

\*\*\*\*\*

**Element: 4.1 Tracks project execution against cost, schedule and technical performance**

**Description/Scope:** Element 4.1.2 consists of monitoring the project deliverables to be sure that the proper information to monitor progress is being received from the contractor. Specifically, this includes verifying that the following project status information is received so that it can be assessed and analyzed:

- Schedule baseline and periodic reports of planned vs. actual schedule progress.
- Cost baseline and periodic reports of planned vs. actual cost.
- SOW and periodic narrative description of the technical progress on the project in terms of the SOW breakdown.

This information will allow the Project Manager to assess the progress of the project and prepare reports for the Program Manager.

**Guiding Principles:** The following guiding principles will be followed in order to meet the objectives of this topic:

- There are reporting requirements in each agreement which will provide the Project Manager with the information needed to analyze and evaluate the progress of individual projects in a program.
- The contractor is responsible for using tools of modern project management to track project progress and report that project to the Project Manager.
- The contractor is responsible for accomplishing the work within budget and cost and for reporting status, including variance, to the Project Manager.

**Procedures:**

- In order to determine the status of the project schedule, the Project Manager will receive the baseline schedule from the contractor at the beginning of the project. The Project Manager will then review and approve (or suggest changes to) the baseline schedule. The Project Manager will check to see that the baseline covers only the period of performance of the project, is realistic, and includes all the work in the project. An approved baseline schedule is essential for the Project Manager to monitor progress.
- In order to determine the status of the project cost, the Project Manager will receive the baseline cost plan from the contractor at the beginning of the project. The Project Manager will then review and approve (or suggest changes to) the baseline cost plan. The Project Manager will check to see that the baseline covers only the period of performance of the project, is realistic, and includes all the work in the project. An approved baseline cost plan is essential for the Project Manager to monitor progress.
- In order to determine the status of the work that has been agreed to, the Project Manager will receive a comprehensive SOW from the contractor at the beginning of the project. The Project Manager will then review and approve (or suggest changes to) the baseline SOW. The Project Manager will check to see that the SOW covers only the period of performance of the project, is realistic and includes all the work in the project, and that the work is organized and divided appropriately. An approved SOW is essential for the Project Manager to monitor progress.

- If appropriate, the Project Manager would review the contractor's entire Project Management Plan or components such as the contractor's Procurement Plan, Risk Management Plan, Communications Plan, and Quality Assurance Plan.

**Tools/Templates:**

- Standardized reports will be established within the PMC electronic platform
- Forms to report schedule baseline and schedule progress
- Forms to cost plan and plan vs. actual
- Templates for Statement of Work
- Templates for Work Breakdown Schedule

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**Element: 4.2 Independently assesses regular project status reports**

**Description/Scope:** Element 4.2 consists of analyzing project performance in terms of achieving satisfactory progress toward accomplishing the work within budget and on schedule.

**Guiding Principles:** The following guiding principles will be followed in order to meet the objectives of this topic:

- The Project Manager should periodically evaluate project progress based on the information provided by the contractor; and
- The Project Manager should periodically document project status so that management is aware of project status.

**Procedures:**

- The Project Managers will use the tools and techniques of modern project management to assess project status and progress.
- The Project Manager will use formal and informal status reporting to determine project status in terms of technical progress, cost, and schedule.
- The Project Manager will assess progress not only in terms of accomplishing the goals of the specific project, but also in terms of meeting the goals of the program.

**Tools/Templates:**

- Standardized reports will be established within the PMC electronic platform

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**Element: 4.3 Identifies significant variances in project progress and recommends corrective actions**

**Description/Scope:** Element 4.3 consists of using the assessment of project status to discover any variances from planned performance that need to be addressed by the project team.

**Guiding Principles:**

- There are accepted values for cost, schedule, and progress variances, within which no immediate action is required;
- Variances above accepted values required action by the appropriate members of the project team; and
- The contractor should use all reasonable means to keep projected uncostered carryover to a minimum.

**Procedures:**

- The Project Manager will use the results of earned value analysis to determine variances in cost and schedule performance.
- The Project Manager will look at trends in cost and schedule performance indices to identify potential problems in the project.
- The Project Manager will identify any variance between the work that the contractor is performing and what is required in the SOW.
- The Project Manager will evaluate the relationship between any known external constraints (such as the availability of funds or changes in public policy) and projected variances.

**Tools/Templates:**

- PMC electronic platform will serve as the overall repository for project status information
- Standardized reports will be established within the PMC electronic platform

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**Element: 4.4 Regularly assesses and reports project status, e.g., cost, schedule, technical performance, to the Program Manager**

**Description/Scope:** Element 4.4 consists of documenting project assessments and variances and reporting significant variances or trends to the Program Manager.

**Guiding Principles:** The following guiding principles will be followed to meet the objectives of this topic:

- The Project Manager must keep the Program Manager aware of any actual or pending problems with the project so that the team can take corrective action;
- Significant variances from expected performance will impact funding requests to be submitted by the Program Manager; and
- Significant variances from expected performance will impact strategic planning for the program.

**Procedures:**

- Project Managers will (formally and informally) document and advise the Program Manager of any significant variances or trends in any aspect of the project.
- Project Managers will report project status to the Program Manager on a regular basis through weekly reports, high level metric reporting, formal monthly reports, and Joule milestone reporting.

**Tools/Templates:**

- ProMIS will serve as the overall repository for project information
- Standardized reports will be established within the PMC electronic platform





## Appendix 3 — Standardized PMC Processes, Forms and Reports

The table below contains a current listing of standardized PMC processes and reports organized into the major PMC functions. Users can click on the links highlighted in blue to directly open up a document. All other documents can be viewed by EERE HQ and PMC employees after logging onto the DOE Officials Login section of the EERE PMC web site: <https://www.eere-pmc.energy.gov/> and using the links on the left side of the site.

Function/Step	Process	Forms/Reports
<b>Project Management</b>		
<b>Project Initiation</b>	EERE PMC Project Initiation (“Kick Off”), Review and Site Meetings	
<b>Procurement (Acquisition and Financial Assistance)</b>		
<b>Award Documents</b>		<a href="#">Notice of Financial Assistance Award</a>
		<a href="#">Federal Assistance Budget Information form DOE F 4600.4</a>
		<a href="#">Budget Information Non Construction Programs SF 424A</a>
		<a href="#">Budget Information Construction Programs SF 424C</a>
		<a href="#">Federal Assistance Reporting Checklist form DOE F 4600.2</a>
		<a href="#">Federal Assistance Management Summary Report form DOE F 4600.5</a>
		<a href="#">Federal Assistance Program/Project Status Report form DOE F 4600.6</a>
<b>Determination of Restricted Eligibility (DRE)</b>	<a href="#">DRE Required Approvals</a>	
	DRE Flowchart	
<b>DNFA Requirements, Process, Documents</b>	<a href="#">DNFA process chart</a>	Sample DNFA Format for Earmark awards
		Sample DNFA Format for awards \$1 million or more
		Sample DNFA Format for award less than \$1million
<b>Cost Sharing</b>	Cost-participation/sharing	
<b>Merit Review Process Requirements</b>	<a href="#">DOE Merit Review Guide</a>	
	EERE PMC Merit Review Guidelines	
	EERE PMC Technical Evaluation and Award Packages	
	EERE Federal Register Notice	

Function/Step	Process	Forms/Reports
Writing a Funding Opportunity	FAAFO Flowchart	<a href="#">FAAFO Template</a>
EERE Procurement Plan		Solicitations Calendar
		Strategy Meeting Calendar
		Review Calendar
		Procurement Plan Example
		Solicitations Master Report
		Abr. Report
		Pre-solicitation Tracking Report 05/05
		Pre-solicitation Tracking Report 05/06
<b>Financial Management</b>		
Accounting	Financial Assistance Award Costing Policy	Financial Reporting - Content and Frequency
<b>Legal</b>		
<b>Environmental Management (NEPA)</b>		
NEPA Tracking		NEPA Submission Tracking Information (Queried)
<b>Other</b>		
Earmarks Award Tracking		FY04 Earmarks Actions Summary
		Financial Reports
		Legal / Financial Status Report (Queried)
		Award Tracking Reports (Queried)
		Award Tracking Graph FY 04, FY 05
		Earmark Overview Reports FY03 FY04 FY05 Without Dollar Amounts
		Earmark Overview Reports FY03 FY04 FY05 With Dollar Amounts
		PMC Uncosted Balance Report FY04 FY05
		EWD & Interior Earmark Report by State All FYs FY02 FY03 FY04 FY05
State Master File Documents		MDF State Submission Spreadsheet
		Pending MDF Submission Requests
		Archived MDF Submission Requests
Lobbying	<a href="#">Lobbying Activities</a>	