Attachment 2
Project Management Plan Template

PROJECT MANAGEMENT PLAN

{Agreement Title} [1]

Revision {Revision Letter}
{Date Prepared}

WORK PERFORMED UNDER AGREEMENT

DE-FE000{xxxx}

SUBMITTED BY

{Organization Name}
{Organization Address}
{City, State, Zip Code}

PRINCIPAL INVESTIGATOR

{Name}
{Phone Number}
{Fax Number}
{E-Mail}

SUBMITTED TO

U. S. Department of Energy
National Energy Technology Laboratory

{FPM Name}
{FMP Email}

[1]NOTE: { } denotes required information.

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TABLES AND FIGURES

1. EXECUTIVE SUMMARY

Provide a description of the project that includes the objective, project goals and expected results. The summary should also include a succinct project background and project rationale. In reference to an application in response to a Funding Opportunity Announcement, this information should be a summary of the pertinent information that is included in the Project Narrative (Field 8).

2. RISK MANAGEMENT

The Applicant (Recipient) shall provide a summary description of the proposed approach to identify, analyze, and respond to perceived risks associated with the proposed project. Project risk events are uncertain future events that, if realized, impact the success of the project. Since risk is inherent to all projects, regardless of the level of complexity, cost or visibility, project risk must be addressed to the appropriate level for every project. It is recognized that the depth of analysis and the complexity and cost of the resulting risk management approach (and plan) will differ from project to project and among organizations. Commonly accepted approaches, such as those supported by The Project Management Institute's A Guide to the Project Management Book of Knowledge, should be considered.

As a minimum, the Applicant (Recipient) should provide sufficient information with the application to demonstrate an appropriate approach to managing risks during project execution. This must include the initial identification of significant technical, resource and management issues that have the potential to impede project progress and strategies to minimize impacts from those issues. For fundamental research and modeling studies it is anticipated that risks would focus on technical uncertainties that are the result of this type of work.

3. MILESTONE LOG

The Applicant (Recipient) shall provide a minimum of two milestones for each budget period of the project. Each milestone is to include a title, planned completion date and a description of the method/process/measure used to verify completion. The milestones developed should be quantitative and show progression towards budget period and/or project goals. At the time of award negotiations, a suite of milestones sufficient to adequately assess progress shall be developed cooperatively by the Recipient and the DOE Federal Project Manager.

Milestones are different than success criteria (Section 7) in that milestones typically show progress through the execution of the budget period and project, whereas success criteria are used by the DOE to determine if specific goals were met at the completion of a budget period or other appropriate point in project execution.

A suggested format for the milestone log is shown in Table 1. The Recipient shall report progress against the Milestone Log in the Progress Reports submitted quarterly, throughout the duration of the award, in accordance with the requirements of the Federal Assistance Reporting Checklist.

4. FUNDING PROFILE AND SPENDING PLAN

The Applicant (Recipient) shall provide a table that shows, by budget period, the amount of government funding going to each team member/subcontractor along with the associated cost share. All subcontracts with a total value (DOE + Cost Share) of ≥ $100,000 shall be identified. The table shall also calculate totals and cost sharing percentages. Table 2 - "Project Funding Profile" below is an example.

In addition, the Applicant shall provide a second table that shows, by fiscal quarter within the current budget period, the amount of government funding going to each team member/subcontractor along with associated cost share. The table shall also calculate totals and cost sharing percentages. Table 3 - "Current Budget Period Spending Plan" below is an example.

It is recognized that detailed out-year costing profiles are less certain, as the appropriate allocation of available resources among the specific Statement of Project Objectives tasks is dependent on the results of the current RD&D approach; consequently, a new "Current Budget Period Spending Plan" table shall be provided at the beginning of each budget period. Note that BP 1 in the "Project Funding Profile" example table is 12 months in duration; budget periods can be more or less than 12 months in duration, as specified in the Funding Opportunity Announcement or by the DOE during award negotiations.

Anytime the planned total cost (DOE + Cost Share) of a project exceeds ≥$1,000,000, the Applicant (Recipient) shall provide the Table 2 - "Project Funding Profile" and Table 3 - "Current Budget Period Spending Plan" information for each Task within the Statement of Project Objectives. This guidance is not applicable to projects in which the Recipient is a university.

The PMP shall be revised to update the information in these tables ONLY at the time of award or in the event of amendments or modifications to the award that affect the project budget. **Table 2 – "Project Funding Profile" and Table 3 – "Current Budget Period Spending Plan" shall be consistent with the DOE-approved budget for the project at all times.**

The Recipient shall report against the Project Funding Profile and Current Budget Period Spending Plan in the Progress Reports submitted quarterly, throughout the duration of the award, in accordance with the requirements of the Federal Assistance Reporting Checklist.

5. ORGANIZATIONAL STRUCTURE AND MANAGEMENT

Provide a chart showing the entities (Recipient organization divisions, subcontractors, consultants, etc.), relationships, roles (referenced to Statement of Project Objectives Tasks) and lead personnel for the project team. Specifically identify key personnel, defined as those personnel deemed critical to project success.

Describe how staffing and resource assignments will be managed during ramp-up at project start, as well as be managed throughout the project life, to support accomplishment of project objectives on schedule and within the planned expenditure of funds. A “Direct Labor Plan” (see Table 4 for an example) shall present direct labor effort (man hours) by labor classification (e.g., management, engineering/scientist, technician, etc.) for each task and budget period. A table shall be provided for the prime Recipient and each subcontract with a total value in excess of $100,000.

6. PROJECT TIMELINE

The Applicant (Recipient) shall provide a timeline of the project broken down by each task and subtask, as described in the Statement of Project Objectives. The timeline shall include for each task: start date, end date, approximate cost and team members participating on the task and their role. The timeline shall also show any interdependencies with other tasks and note the milestones identified in the Milestone Log (Section 3). It is highly recommended that the Applicant (Recipient) consider using a commercial software package to generate the timeline as a Gantt chart (see Figure 1 as an example) or other applicable format.

7. SUCCESS CRITERIA AND DECISION POINTS

The success criteria should be objective and stated in terms of specific, measurable and repeatable data. Usually, the success criteria pertain to desirable outcomes, results and observations from the experimental efforts. The success criteria should not be based on interpretations. Typically, the expected performance parameters should be established with a technical and economic comparison made to the competing technologies or methods. A discussion should be included on the probable advantages and possible disadvantages. Advantages could include, but are not limited to:

a. Validation/confirmation/identification of scientific/engineering knowledge.
b. Cost savings expected over existing technologies.
c. Performance enhancements to existing technologies.
d. Reduction in health and safety risks to the public and workers, and reduction in environmental risks.
e. Ease of installation, operation, and maintenance.
f. Decrease in capital, operating, and maintenance cost.

Success Criteria are different than milestones (Section 3) in that milestones typically show progress through the execution of the budget period and project, whereas success criteria are used by the DOE to determine if specific goals and objectives were met at budget period ends. Typically, these goals and objectives represent requirements established by the R&D program as evidence of progress in advancing a technology area or scientific/engineering knowledge. The success criteria may be used to assist DOE in deciding whether to proceed into subsequent budget period(s), if required.

8. REVISION HISTORY

This section shall provide the revision history of the Project Management Plan. Each revision shall be accompanied by a detailed explanation and the date of the change. Each revision shall be identified by a new revision letter - the revision letter on the title page shall be incremented accordingly. Examples of reasons for revision include amendments or modifications to the cooperative agreement/grant/FWP that change the approved budget, project schedule and/or SOPO, changes to the organizational structure, etc. All revisions require the concurrence of the DOE Federal Project Manager.

APPENDICES

Include the following documents (where applicable) as appendices to the Project Management Plan:

- Statement of Project Objectives (SOPO)
- Field Work Proposals (where applicable)
- Major subcontract documents (>$100K)
- Field test plans (as completed during the course of the project)

Table 1 – Milestone Log

MILESTONE LOG						
Budget Period	ID	Task Number	Title	Description	Planned Completion Date	Verification Method

Table 2 – Project Funding Profile

This table should replicate the budget information in the award document.

	BP1										BP2		Total	
	Q1		Q2		Q3		Q4		Total					
	DOE	Cost Share	DOE	Cost Share	DOE	Cost Share	DOE	Cost Share	DOE	Cost Share	DOE	Cost Share	DOE	Cost Share
Prime Applicant (Recipient)	$800,000	$200,000	$1,000,000	$250,000	$1,000,000	$250,000	$500,000	$125,000	$3,300,000	$825,000	$3,000,000	$3,000,000	$6,300,000	$3,825,000
Subcontractor 1	$100,000	$25,000	$100,000	$25,000	$0	$0	$0	$0	$200,000	$50,000	$200,000	$200,000	$400,000	$250,000
Subcontractor 2	$50,000	$15,000	$100,000	$25,000	$10,000	$2,500	$10,000	$2,500	$170,000	$45,000	$0	$0	$170,000	$45,000
Subcontractor 3														
Total	$950,000	$240,000	$1,200,000	$300,000	$1,010,000	$252,500	$510,000	$127,500	$3,670,000	$920,000	$3,200,000	$3,200,000	$6,870,000	$4,120,000
Cost Share %	79.8%	20.2%	80.0%	20.0%	80.0%	20.0%	80.0%	20.0%	80.0%	20.0%	50.0%	50.0%	62.5%	37.5%

Table 3 – Current Budget Period Spending Plan

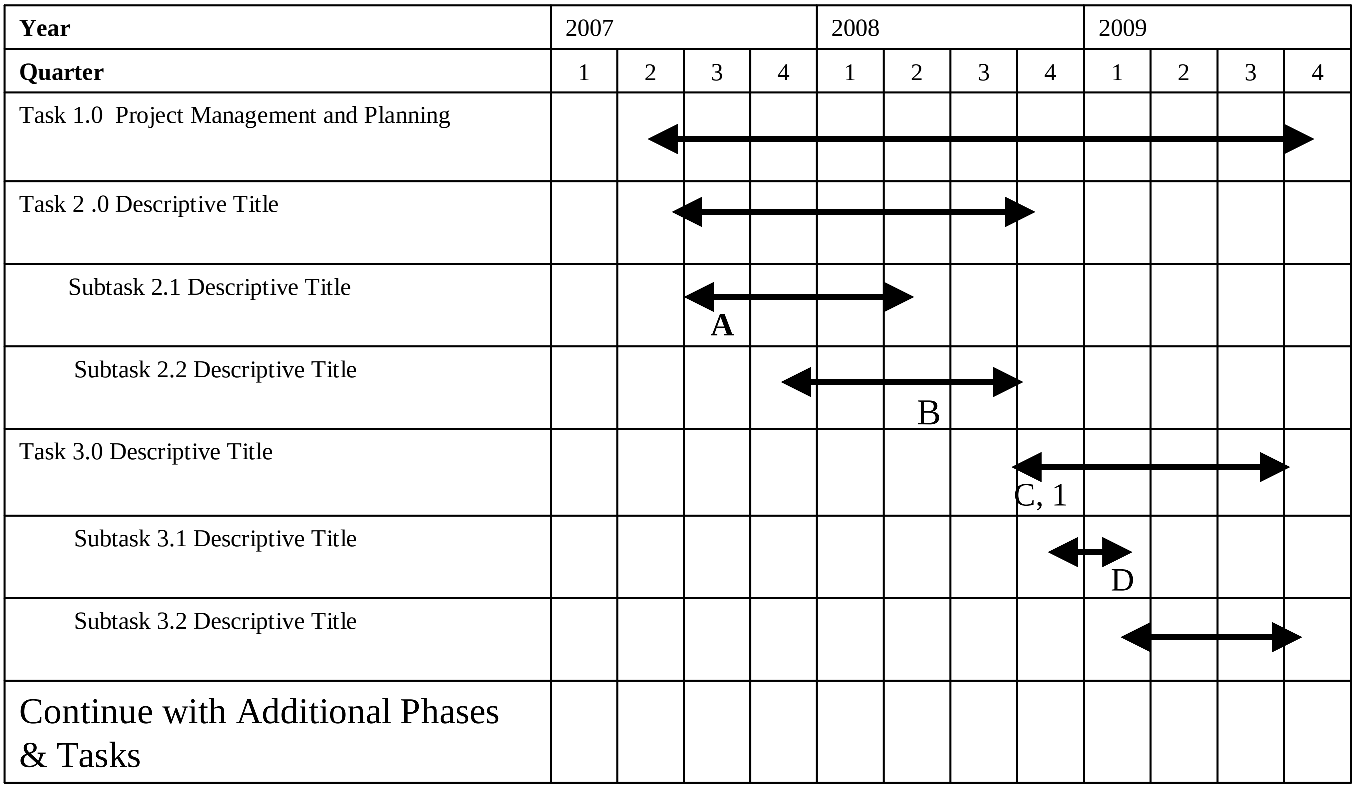
This table is the Cost Baseline for BP1 and actuals and variances against this baseline should be reported in the Quarterly Reports.

	BP1									
	Q1		Q2		Q3		Q4		Total	
	DOE	Cost Share	DOE	Cost Share	DOE	Cost Share	DOE	Cost Share	DOE	Cost Share
Prime Applicant (Recipient)	$800,000	$200,000	$1,000,000	$250,000	$1,000,000	$250,000	$500,000	$125,000	$3,300,000	$825,000
Subcontractor 1	$100,000	$25,000	$100,000	$25,000	$0	$0	$0	$0	$200,000	$50,000
Subcontractor 2	$50,000	$15,000	$100,000	$25,000	$10,000	$2,500	$10,000	$2,500	$170,000	$45,000
Subcontractor 3										
Total	$950,000	$240,000	$1,200,000	$300,000	$1,010,000	$252,500	$510,000	$127,500	$3,670,000	$920,000
Cost Share %	79.8%	20.2%	80.0%	20.0%	80.0%	20.0%	80.0%	20.0%	80.0%	20.0%

Table 4 – Direct Labor Plan

	BP1			BP2			Total		
	Management	**Engineering/Scientist**	**Technician**	**Management**	**Engineering/Scientist**	**Technician**	**Management**	**Engineering/Scientist**	**Technician**
Task 1									
Task 2									
Task 3									
Total									

Figure 1 – Sample Project Timeline (Gantt Chart)



A, B, C etc. – Milestones from Milestone Log

1,2,3 etc – Decision Points

Note: Timelines for each task and subtask has an associated level of effort, typically budgeted cost