

STATE State Energy Office

State of STATE

Project Management Plan

U.S. Department of Energy
National Energy Technology Laboratory

Recovery Act – Enhancing State Government
Energy Assurance Capabilities and Planning for
Smart Grid Resiliency Funding

Opportunity No. DE-FOA-0000091CFDA Number 81.122

October xx, 2009

PLEASE READ

Disclaimer: NASEO provides this sample template as an aid for states. Use of this sample template is entirely optional. The requirements for the Project Management Plan that need to be met are only those specified by NETL in the FOA and SPO. Beyond these requirements, it is solely at the state's discretion as to whether they want to use any or part of this sample template. The provided Project Management and Milestone Log Table is for illustrative purposes only - substitute the state's tasks, start dates, duration times, end dates, and key personnel (optional). A portion of the material in this document comes from the attached Tables and Gantt Chart. Please see accompanying Instructions.

PROJECT MANAGEMENT PLAN

Recovery Act – Energy Assurance Planning – State of STATE

October xx, 2009

WORK PERFORMED UNDER AGREEMENT

DE-OE0000xxx

SUBMITTED BY

STATE¹—SEO full name

(address)

(city, state)

PRINCIPAL INVESTIGATOR

(SEO director or designee)

Phone:

Fax:

E-Mail:

SUBMITTED TO

U. S. Department of Energy

National Energy Technology Laboratory

Joseph Hanna

joseph.hanna@netl.doe.gov

1. Executive Summary

This Project Management Plan will guide the State of STATE's Energy Assurance planning and training effort as specified in Funding Opportunity Number DOE-FOA-000091, Recovery Act – Enhancing State Government Energy Assurance Capabilities and Planning for Smart Grid Resiliency. The Plan is formatted to include an overview of the tasks required by DOE-FOA-000091 followed by a discussion of how these tasks will be addressed. The Plan is understood by the U.S. Department of Energy (DOE) to be a “living” document, subject to updates and revisions as the work progresses. STATE anticipates that there indeed will be changes in the Project Management Plan as lessons-learned are applied to subsequent tasks.

Overview

The Project Management Plan covers five major tasks required by DOE. The first of these tasks is to create this Project Management Plan (PMP). The second task (Workforce Development Plan - WDP) relates to a major goal of DOE-FOA-000091, for each participating state to enhance its energy assurance capabilities by training existing staff and augmenting the energy staff with additional personnel to accommodate the goals of the Energy Assurance Plan and related activities. The third task is to develop (or revise as appropriate) the state's Energy Assurance Plan. This task is at the center of the remaining tasks that include a data tracking system for use before, during and after emergencies (Task 4) and training stakeholders from within the state and from neighboring jurisdictions (Task 5). For purposes of managing the state's energy assurance planning process, STATE has chosen to divide the third task into two sections – plan preparation and internal plan revision and completion.

Energy Assurance Planning in STATE and Project Goals

STATE's current (or existing) energy emergency plan was created in XXXX and, while including major energy sources (e.g., petroleum, natural gas, electricity), xxx (to be revised, or re-written, or is just fine..xx). While this was adequate in its time, DOE-FOA-000091 has asked states to broaden the scope of their updated plans to include data and major and alternative energy sources as a foundation for energy assurance planning. DOE has also asked states to consider the potential impact of the Internet, computer-dependent energy controls (e.g., SCADA controls) and related cyber protection protocols that can affect the continuity of energy delivery. Further, STATE recognizes the potential role of energy alternatives (such as Smart Grid technology, biofuels, combined heat and power, wind and solar power) for reducing the state's vulnerability during energy shortages for enhancing the state's energy use resiliency.

In order to maximize the impact of a new Energy Assurance Plan on improving the state's energy resiliency in emergencies, STATE recognizes the centrality of sound data collection and management. Hence it is also a goal of this PMP to improve the ability of state officials to understand and use energy data including how it is gathered and used as a part of protecting its citizens during an energy shortage.

STATE also joins the DOE in understanding the value of on-going exercises and training. This PMP will address the first two exercises the state will join as a part of the Energy Assurance Plan's development. After that, the state will continue its energy assurance training efforts

through the work of designated energy assurance personnel, responsible for energy assurance planning and implementation, and in coordination with other state agencies that have significant assurance training responsibilities. These exercises and training will also help guide future energy assurance planning because they will reflect the energy situation at the time of the exercises.

2. Project Risk Management

STATE acknowledges that any project has some risk of failure to complete the agreed upon tasks. (basic STATE (or cognizant agency) project/financial control's description) In addition to technical and management oversight, the (Cognizant Agency) regularly enlists the support (any other relevant agencies or oversight groups). Further, the project will report on a (probably quarterly) basis to (oversight agency) that will also provide feedback on project activity.

The STATE State Energy Office (SEO) will exercise its normal project oversight in accordance with STATE's extensive procurement and project management protocols and rules. The cost of this oversight is an on-going responsibility of the oversight agencies and is built-in, but not separated out from, anticipated administrative costs for this project.

This project has been approved within the State of STATE's procurement system and all parties are looking forward to project's outcome. As the project progresses, the SEO, its contractors and the State Energy Office will include a wide variety of potential stakeholders at various levels to insure that the deliverables of this project are widely accepted and willingly utilized by STATE energy and homeland security managers as well as private sector stakeholders.

3. Milestone Log

Table 1 summarizes the elements of the PMP and provides an overview, with time frames and milestones as specified, for the state's energy assurance planning effort. Within this Table, specific projects are aligned in the order they will be undertaken. Following this Table are detailed descriptions of each Task. A Gantt Chart for this section is contained under Part 5, Project Time Line, in Figure 1. This figure also contains additional timing detail and required milestone dates.

Table 1 – Project Management and Milestone Log Table

Tasks by number - FILL INDICATES CRITICAL REVIEW and MILESTONES	Year Range	Start Date	Approximate Duration of Task in Days	DOE Completed Task End Date and Subtask End Dates	Key Personnel Principal/1st Coordinating/2nd Coordinating
TASK 1 PMP	2009				
MILESTONE: Submit PMP to DOE		9/1/2009	8	10/11/2009	SEO
Continuing updates for duration of project		10/30/2009	875		
TASK 2 WDP	2009				
Discusses SEO hiring needs		9/23/2009	7	9/30/2009	Contractor
Prepare outline followed by review		9/30/2009	7	10/7/2009	Contractor
Draft WDP		10/7/2009	14	10/21/2009	Contractor
Review		10/21/2009	21	11/11/2009	SEO
MILESTONE: Submit to DOE		11/11/2009	1	11/10/2009	SEO
Publish job description and begin hiring process		10/28/2009	42	12/9/2009	SEO
TASK 3a EA Plan Development	2009-2010				
Begin data acquisition		10/21/2009	140	3/10/2010	Contractor
Develop Plan outline		11/8/2009	14	11/22/2009	Contractor
Review outline		12/2/2009	14	12/16/2009	SEO
Set Up on-site interviews		12/2/2009	14	12/16/2009	SEO
Meeting preparation		12/16/2009	14	12/30/2009	Contractor
In state interviews		12/30/2009	7	1/6/2010	Contractor/SEO
Review data and interviews		1/6/2009	21	1/27/2009	Contractor
Identify vulnerability & risk factors		1/27/2009	28	2/24/2009	Contractor/SEO
Identify & review alternatives (e.g. smart grid)		2/24/2010	28	3/24/2010	Contractor/SEO
Draft Plan		3/24/2010	112	7/14/2010	Contractor
Edit & review format		7/14/2010	42	8/25/2010	SEO
Edit, make changes, final draft		8/25/2010	28	9/22/2010	Contractor/SEO
Submit draft for SEO review		9/22/2010	7	9/29/2010	SEO
TASK 3b EA Plan Internal Review	2009-2011				
Energy Committee briefed		9/29/2010	7	10/6/2010	SEO/Contractor

DRAFT Project Management Plan – STATE Energy Assurance Planning - Project Management Plan –October xx, 2009

SEO review	10/6/2010	42	11/17/2010	SEO
Review edits incorporated into Plan	12/1/2010	28	12/29/2010	Contractor
Final editing and format review	12/15/2010	21	1/5/2011	SEO/Contractor
MILSESTONE: EA Plan submitted to DOE	1/5/2011	1	2/5/2011	SEO
TASK 4 - Develop Energy Supply Disruption Tracking Process	2009-2010			
Tracking Process Plan outline created	2/17/2010	21	3/10/2010	Contractor
Discuss Data Acquisition Issue with Stakeholders	3/10/2010	42	4/21/2010	Contractor
Develop Tracking Plan	4/21/2010	28	5/19/2010	Contractor
Internal SEO review and edit	5/19/2010	28	6/16/2010	SEO
SEO review	6/16/2010	#REF!	#REF!	SEO
MILESTONE: Final edits and submission to DOE	7/14/2010	1	8/12/2010	Contractor/SEO
TASK 5a - Develop and Hold Intra-State Exercise	2010-2011			
Identify stakeholders to attend	9/15/2010	28	10/13/2010	SEO
Draft training materials	10/20/2010	28	11/17/2010	Contractor
Set-up training venue and logistics	10/20/2010	14	11/3/2010	SEO
Review training materials & scope of training	11/3/2010	21	11/24/2010	SEO
Hold Exercise	2/2/2011	7	2/9/2011	SEO/Contractor
MILESTONE: Review results and Report to DOE	2/9/2011	7	8/11/2011	Contractor/SEO
TASK 5b - Participate in Developing and Holding Interstate Training	2009-2012			
Contacts to identify & work with interstate participants	4/1/2011	100	7/10/2011	SEO
Coordinate with interstate partners for approach and duties & logistics	11/24/2011	56	1/19/2012	SEO
Draft and review training materials	2/2/2012	28	3/1/2012	Contractor
Participate in interstate exercise	5/18/2012	14	6/1/2012	SEO/Contractor
MILESTONE: Review results and Report to DOE	5/25/2012	7	2/11/2012	Contractor/SEO

Task 1- Project Management Plan

This PMP began with discussions held by the State Energy Office, and its prime contractor, the (name, if using a contractor or name of other entity). The State designee's, (perhaps a contractor or a state official or other as each state determines) effort will be headed by (name(s) of persons). (Consultants or other entity) will also work closely with the SEO as each task is undertaken. Task 1 addresses this initial planning in order to provide overall management with adherence to reasonable time frames for project task completion. All Tasks will be completed within the times required by the DOE with sufficient time to allow for thorough and timely internal review.

Part of this project will include a (outside review group if using one) comprised of representatives from state agencies associated with energy assurance planning, as well as energy suppliers and end users, who will be briefed regularly and will review drafts of program documents. Some members of this Group will be participants in the Task 5 exercises...xxx will be created to review project work and develop suggestions and recommendations for consideration.

Task 2 – Workforce Development Plan

This task will inform DOE how STATE plans to train its personnel and augment its staff to manage energy assurance responsibilities within SEO. The components of the Workforce Development Plan (WDP) task are:

- SEO and Contractor or other entity discuss hiring needs and parameters. Purpose of this sub-task is to define the job requirements within the parameters provided by the State of STATE so that the job(s) can be posted.
- SEO, Contractor or other entity prepares Outline of WDP for SEO review. The time line for hiring is suggested and reviewed. Steps pertaining to training for the exiting staff and new staff, and particularly the Energy Assurance manager are defined.
- SEO, Contractor or other entity writes WDP. The thoughts and needs expressed by SEO are written for DOE review. These will include training for existing staff, hiring of additional staff and post-hire training and related materials as needed. It will also inform DOE about project responsibilities and duties for existing and anticipated staff.
- Review of written plan completed by SEO.
- The WDP is submitted to DOE.
- SEO begins hiring process.

Task 3a – Energy Assurance Plan

This Task is central to the entire Energy Assurance (EA) project. This Task will ultimately form the basis for energy data management, on-going stakeholder training, and emergency resource allocation. The development of this Task will also encompass making contacts with state government and private stakeholders and solidifying coordination and cooperation. Developing or updating the Plan will also be a part of the training for existing SEO staff and new personnel hired in conjunction with the WDP. Major components are:

- SEO, Contractor or other entity begins to acquire data on-site and via the Internet. This includes energy supply and consumption data, infrastructure and alternatives. This step will encompass the primary state energy profile information necessary for subsequent analysis. Data will be obtained for all forms of energy used in STATE including petroleum products (e.g., motor gasoline, distillate and propane), natural gas, electricity and alternatives.
- SEO, Contractor or other entity develops EA Plan outline for SEO. This outline will inform SEO, (any outside review group) and will also take note of the requirement to develop a plan in coordination with the National Association of State Energy Officials-DOE State Energy Assurance Guidelines.
- SEO Reviews Outline.
- SEO, Contractor or other entity sets-up in-state interviews based on SEO identification of organizations and individuals within state agencies and other organizations and companies.
- SEO, Contractor and/or other entity provide meeting preparation.
- Perform on-site stakeholder interviews and visits. This entails approximately a week of interviews and meetings with identified individuals that will be conducted by the SEO, Contractor or other entity and will include SEO's EA designee or manager. These interviews will therefore become a part of training as will be noted in the WDP. Interview follow-up will also be undertaken as needed.
- SEO, Contractor and/or other entity data review.
- Contractor analyzes data and evaluates vulnerability & risk factors. Included within this analysis will be issues related to energy use patterns, geographical distinctions, external energy market factors and the impact of electronic factors such as system controls, cyber security, and independent service operator (ISO) connectivity.
- SEO, Contractor and/or other entity review impact of energy alternatives including Smart Grid technology.
- SEO, Contractor or other entity drafts EA Plan. The draft will include the primary state energy use description, information pertaining to vulnerability and risk, suggestions for data acquisition and identification of impending energy problems. As a part of this Task, the process for acquiring, updating and using data will be discussed.

The role of various stakeholders will be examined including public and private sector participants. Emphasis will be given to how other state agencies relate to issues under their jurisdiction including utility regulation and energy assurance management. The role of local jurisdictions and various industry councils will also

be included. Alternatives such as wind, solar, efficiency and especially, the potential use of Smart Grid technology will be discussed.

Finally, the Plan will contain a review of, and suggestions for, various mitigations measures the State may wish to take from public communications to highly regulated activities. Public communications will receive special focus because SEO is already responsible for this on energy matters. In addition to planning for severe energy emergencies, the Plan will emphasize STATE's policy to avert severe energy emergency event mitigation measures by instituting preemptive efforts at the first sign of a potential shortage or disruption.

- Review and edits.
- Review edited draft and send changes to SEO.
- SEO provides edited draft to SEO.

Task 3b – Energy Assurance Plan – Internal Stakeholder Review

- SEO, Contractor and/or other entity briefs (external review group, if any) on Plan and these groups provide feedback.
- SEO begins review of draft Plan.
- Suggestions from reviews are evaluated and incorporated, as appropriate, into the EA Plan.
- SEO reviews the final edited Plan draft.
- SEO, Contractor or other entity undertake any final edits and formatting.
- SEO submits completed STATE Energy Assurance Plan to DOE.

Task 4 – Develop Energy Supply Disruption Tracking Process

This Task will accomplish two central goals to be developed in parallel with Task 3a. The first will provide guidance for gathering real-time energy data during a shortage. The second is to collect, evaluate and utilize lessons learned from emergency events that, in fact, affect the State's energy consumption. In one sense this Task may be deceptively simple; in reality it may be necessary to create a tracking process that works with what is possible in the energy market. While the types and sources of real-time – assurance-related – data are fairly well known, it may be challenging to obtain cooperation and access to such data from certain stakeholders. It is anticipated that some private sector stakeholders might plead that such data is 1) proprietary and 2) difficult to furnish while personnel are carrying out their emergency responsibilities.

Hence, this Task will not only need to identify available sources of real time data, it will also involve educating stakeholders about the value of such data and devising ways that protect the data sources while mitigating the effort and cost needed to collect and share it. STATE SEO is fortunate to have hands-on experience in purchasing power and fuel for state buildings. Thus this deliverable may combine several tracking methods that will help all types of emergency reactors meet their responsibilities. This might include a melding of data obtained through recent energy purchases for the State with publicly available trend data obtained from industry and the Energy Information Administration, as well as anecdotal data gleaned from various energy industry sources.

SEO will also work with Departments of Homeland Security and Public Utility Commission to share post-energy shortage event information in a systematic way. This task will provide guidance for obtaining, evaluating and utilizing such information. The steps for meeting both goals of this Task include:

- SEO, Contractor or other entity prepares a Tracking Process outline for SEO. SEO, Contractor or other entity discusses data acquisition issues with various stakeholders.
- SEO, Contractor or other entity discusses post-event information retention and evaluation strategies with key stakeholders.
- SEO, Contractor or other entity develops a workable plan while seeking support from key stakeholders.
- Following an internal edit by SEO, the SEO, Contractor or other entity will make changes.
- SEO, Contractor or other entity (and review group if any) review the proposed Tracking Process.
- Final edits by SEO and the SEO, Contractor or other entity will be followed by SEO submission to DOE.

Task 5a – Intra-State Energy Assurance Exercise

This Task sets out the steps for developing and holding the first of what is meant to be regular exercises that will serve as training sessions for STATE energy assurance stakeholders. The training will follow the completion of the STATE State Energy Assurance Plan and will be designed to do three things:

- Familiarize STATE EA stakeholders with the updated Energy Assurance Plan.
- Allow participants to interact and develop informal networking among stakeholders.
- Provide for discussion and an evaluation of potential energy shortage scenarios, and an examination of how state emergency planning in conjunction with the State Energy Assurance Plan will assist emergency responders in meeting their emergency management obligations.

STATE anticipates that participants in the exercise will provide feedback and information that will guide future developments in policy, planning and subsequent exercises.

It is anticipated that this Task will be held in coordination with the Department of Homeland Security and Public Utility Commission among other stakeholders. These stakeholders may include, but are not limited to, key state and local government agencies, representative energy consumers, energy industry organizational and company representatives (expected to include some members of (review group, if any), various interested observers and out-of-state organizations and government officials.

The SEO, Contractor or other entity will develop materials for this Task in coordination with the SEO. Upon approval of the training materials, training will be held followed by a review of the exercise. The review may determine the course of further training and provide pointers for STATE's participation the regional/interstate training exercise specified in Task 5b. Steps to be taken are:

- Identify stakeholders to attend training.

- Draft training materials.
- Set-up training venue and logistics.
- Review training materials a scope of training offered.
- Hold the training exercise.
- Review results and use for planning future training.

Task 5b – Interstate Energy Assurance Exercises

This final Task will take place in coordination with neighboring states. As this Task is planned, it is thought that STATE will work most closely with its immediate (area, neighboring jurisdictions). Lessons-learned from the intra-state training exercise will guide planning for this Task. The goal of this training task is to both familiarize state stakeholders with counterparts in surrounding jurisdictions as well as to identify, and work to resolve, any conflicts and potentially unwanted consequences of actions taken within each jurisdiction. Ideally, subject to agreement among participating jurisdictions, this training may also include updates on managing regional energy infrastructure and activities, such as the Independent Service Operator (local regional /regional states), regional liquids and gas delivery through ports in STATE, electric transmission, and gas and liquids storage and transportation. The training will also attempt to familiarize participants with energy interruption events that could affect all participating states simultaneously and thus require especially close interstate coordination.

To accomplish these goals, this training will require coordination among Energy Assurance Plans of participating states, as well as the establishment of on-going communications and coordination among energy assurance personnel and allied stakeholders. Steps to carry out this Task include:

- Identify potential interstate participants.
Interstate coordination may include inviting participants from the National Association of State Energy Officials, the National Association of Regulatory Utility Commissions, officials of local jurisdictions within each state, private sector energy provider industry and association stakeholders and federal officials. This sub-task will begin relatively early in the overall Energy Assurance project in order to provide ample time for contacting and discussing training options among jurisdictions.
- Coordinate, per the above bullet, with interstate partners and determine approach and division of labor.
This step may very well include selecting a lead jurisdiction, or coordinating body, to locate a suitable training venue and to make the necessary logistical arrangements for the exercise.
- Draft and review potential training materials, in coordination with participating jurisdictions, including developing updated energy data and information and preparing hand-outs.
- Participate in interstate exercise.
- Hold post-event review to evaluate results and plan for next interstate exercise.

Milestone Verification

Describe whatever this is: agency oversight, department oversight, legislative oversight, etc.

A

4. Funding and Costing Profile (Budget)

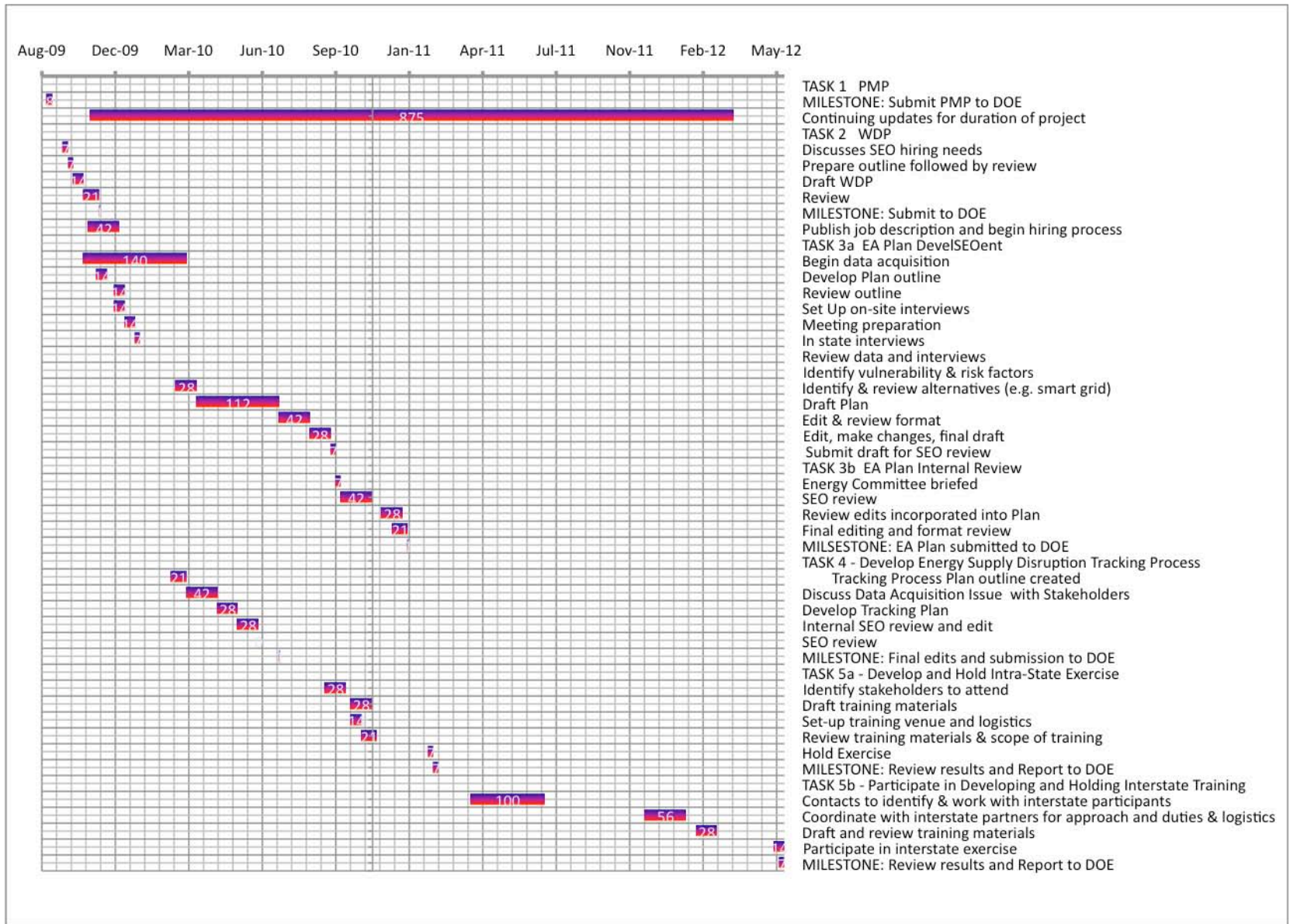
**Table 2a – Budget Tables
Project Cost Element Projection**

	Project Year 1 8/2009 - 7/2010	Project Year 2 8/2010 - 7/2011	Project Year 3 8/2011 - 7/2012	Grand Totals
Personnel				
Fringe				
Travel				
Equipment				
Supplies				
Contractual				
Other				
Total Direct				
Indirect				
Grand Total				

**Table 3a – Budget Tables
Project Monthly Cost Projection**

	Project Year 1 8/2009 - 7/2010	Project Year 2 8/2010 - 7/2011	Project Year 3 8/2011 - 7/2012
August			
September			
October			
November			
December			
January			
February			
March			
April			
May			
June			
July			
Grand Total			

4. Project Timeline - Figure 1 – Gantt Chart



6. Success Criteria

The criteria for this project are directly related to the completion of Tasks and their potential for successful implementation. Hence, for example, the completion of steps such as the Energy Assurance Plan and the Supply Disruption Tracking Systems mark the creation of documents that can be used to inform stakeholders prior to a shortage and guide their response during and after a shortage.

Other Proposed Success Criteria

The actual criteria will, as discussed above, be subject to input from the (review group, if any). Additional Criteria to be suggested include, but are not limited to:

- Number of State personnel within SEO who understand the Energy Assurance Plan and can relate its contents to their everyday, overall, energy planning and management activities.
- Number of non-SEO emergency management-related personnel who will have become familiar with energy shortages as a significant component of broader state emergency planning and mitigation.
- Number of local jurisdiction officials who are familiar with the Emergency Support Function 12 (Energy) that will be highlighted within certain sections of the Energy Assurance Plan.
- Number of private sector energy stakeholders who both understand, and exhibit a willingness to support, State efforts to manage and mitigate energy shortages as part of their Energy Assurance responsibilities.

Reporting

Reporting Dates are provided in Table 4.

Table 4 – Reporting Schedule

1st quarterly report: Progress on developing PMP and WDP	November 11-21, 2009
2nd quarterly report: Progress initiating required tasks	February 11[-21, 2010
3rd quarterly report: Progress on EA Plan and Tracking Plan	May 11-21, 2010
4th quarterly report: Progress on EA Plan and Tracking Plan	August 11- 21, 2010
5 th quarterly report: Progress on EA Plan	November 11-21, 2010
6 th quarterly report: Progress on Intra-state training	February 11[-21, 2011
7 th quarterly report: Results of Intra-state training	May 11-21, 2011
8 th quarterly report: Progress of Interstate training	August 11- 21, 2011
9 th quarterly report: Results of Interstate training	November 11-21, 2011
10 th quarterly report: Post project deliverable progress and further Plan changes	February 11[-21, 2012
11 th quarterly report. Post project deliverable progress and further Plan changes	May 11-21, 2012
12 th quarterly report: Final Report	August 11- 21, 2012

7. Agreement Statement of Project Objectives

Cut and Paste from the Financial Assistance Award.