

February 16, 2006

# AGAR ADVISORY

**UNITED STATES DEPARTMENT OF AGRICULTURE  
OFFICE OF PROCUREMENT AND PROPERTY MANAGEMENT  
AGAR ADVISORY NO. 80**

## **Requirement for Use of an Earned Value Management System (EVMS)**

**INTRODUCTION:** The purpose of this Agriculture Acquisition Regulation (AGAR) Advisory is to establish policy and procedures for incorporating requirements for Earned Value Management (EVM) Systems in Department of Agriculture (USDA) contracts and orders for major information technology (IT) investments.

**SUMMARY:** Use of an EVMS for USDA IT investments enables investment/program managers and senior management to better track the progress of IT investments and enhances USDA's ability to make informed decisions concerning these investments. EVM is a project management technique that measures the actual progress of a project, taking into account the work completed, the time taken and the costs incurred. This information can then be compared to the original project estimates to enable the investment/program manager to assess the actual versus planned progress of the project. The USDA Office of the Chief Information Officer (OCIO) has established requirements for use of EVM on major IT investments. This AGAR Advisory recaps these OCIO requirements and establishes policy and procedures for including requirements for EVM systems in USDA contracts.

### **SPECIFIC ISSUES:**

#### □ BACKGROUND

- Title V of the Federal Acquisition Streamlining Act of 1994 (FASA) required agency heads to approve or define the cost, performance and schedule goals for major acquisitions and achieve, on average, 90% of the cost, performance and schedule goals established.
- The Clinger-Cohen Act of 1996 directed the Office of Management and Budget (OMB) to develop, as part of the budget process, a process for analyzing, tracking and evaluating the risks and results of all major capital investments for information systems for the life of the system.
- OMB Circular A-11, Part 7, Planning, Budgeting, Acquisition and Management of Capital Assets, and the supplement to Part 7, the Capital Programming Guide, were written to meet the statutory requirements of FASA and the Clinger-Cohen Act.

- OMB Circular A-11, Part 7, Section 300, instructs Federal executive agencies on the budget justification and reporting requirements for major investments. Section 300.7 requires that these executive agencies submit an Exhibit 300, Capital Asset Plan and Business Case, for all major investments as part of the annual budget submission. As part of the funding decision process, each Exhibit 300 is scored by OMB.
  - OMB Circular A-11, Part 7, further requires use of an EVMS that meets the American National Standards Institute (ANSI)/Electronics Industries Alliance (EIA) Standard 748 “for both Government and contractors costs, for those parts of the total investment requiring development efforts (e.g., prototypes and testing in the planning phase and development efforts in the acquisition phase)” and requires that agencies “show how close the investment is to meeting the approved cost, schedule and performance goals.”
  - The USDA Information Technology Capital Planning and Investment Control (CPIC) Guide establishes the process and strategies for USDA’s management of its IT investment portfolio and establishes the thresholds and criteria for determining which USDA IT projects are deemed to be major IT investments. The USDA CPIC includes implementing information on the preparation and submission of Exhibit 300s to OMB via the USDA OCIO.
  - USDA Departmental Regulation (DR) 3130-006, “Information Technology Earned Value Management,” defines the policies and responsibilities, for using and reporting EVM for major USDA IT investments.  
(<http://www.ocio.usda.gov/directives/#3000link>)
  - USDA Chief Information Officer (CIO) and USDA Senior Procurement Executive (SPE) memoranda of November 22, 2005 and September 29, 2004 provide additional USDA policy and guidance for incorporating EVM requirements in major IT investments.
  - There is currently a Federal Acquisition Regulation (FAR) case in process to establish requirements for inclusion of EVMS provisions and clauses in solicitations and contracts. This AGAR Advisory will be modified, as necessary to comply with the FAR upon issuance of the formal change.
- REQUIREMENTS FOR EVM IN USDA MAJOR IT INVESTMENTS
- DR 3130-006 establishes thresholds for application of USDA EVM policy for major IT investments. These thresholds apply only to the development, modernization or enhancement (D/M/E) expenditures of a major IT investment.

- DR 3130-006 requires:
  - Compliance with the ANSI/EIA-748-A EVM Standard for:
    - (1) All new major IT investments (major applications) for which agencies are planning to spend more than \$20 million in D/M/E for application development over the agency-defined life cycle.
    - (2) All major IT investments that are currently in process and are budgeted for more than \$20 million in D/M/E during the remainder of the life cycle.
  - All major IT investments that have planned budgets in excess of \$50 million in D/M/E over the defined life cycle must be compliant with the ANSI/EIA-748 EVM Standard and must have a written certification, provided to OCIO, that the EVM system being used is in full compliance with the ANSI/EIA-748 EVM Standard.
- Pursuant to DR 3130-006 and USDA CIO and SPE memorandum of November 22, 2005:
  - The D/M/E dollars thresholds apply to the total D/M/E cost for the investment including all contracted and in-house work. Data collected from each contracted and in-house element of the project will be combined to measure and report an investment's performance.
  - For IT investments requiring an EVMS, for which IT investment integration will be performed under a contract, the solicitations and contracts may require inclusion of an EVMS provision and clause.
  - Contracts that support IT investments requiring EVM systems, but which are not the IT investment integration contracts, must include requirements for the contractor to provide reports of EVM data for all D/M/E costs to the investment integrator (either the Government or Contractor integrator).
- The thresholds and criteria for determining whether an EVMS is required for specific IT investments are established by the USDA OCIO and are based on estimated costs of the IT investments. The agency investment/program manager has primary responsibility for determining whether an EVMS is required for a specific in-house IT investment. The agency investment/program manager and the contracting officer are jointly responsible for determining if, and to what extent, the EVMS requirement will be applied to contracts.
- **POLICY AND PROCEDURES FOR INCLUSION OF REQUIREMENTS FOR EVMS IN SOLICITATIONS AND CONTRACTS**
  - The determination of whether a solicitation/contract should include a requirement

for a contractor to have an EVMS must be coordinated between the IT investment/program manager and the contracting officer. The determination of whether an EVMS is required for an investment is based on the estimated D/M/E costs for the IT investment. The determination of whether a particular solicitation/contract must include a provision and clause requiring the contractor to have an EVMS is based on the purpose of the contract, the contract type and the estimated contract value. For IT investments for which the Government is the integrator, the types of reports and information required from contractors providing support must be developed by the investment/program manager and the contracting officer based on the contract type and value.

- Solicitations and contracts shall include a requirement for an EVMS that is compliant with ANSI/EIA Standard 748, in accordance with the following.
  - Cost-reimbursement or incentive contracts (as defined in FAR part 2 and subparts 16.3 and 16.4) with estimated values (including options) over \$20 million up to and including \$50 million shall include a requirement for an EVMS compliant with ANSI/EIA Standard 748.
  - Cost-reimbursement or incentive contracts (as defined in FAR part 2 and subparts 16.3 and 16.4) with estimated values (including options) over \$50 million shall include a requirement for an EVMS that:
    - (1) is compliant with ANSI/EIA Standard 748; and
    - (2) in accordance with DR 3130-006 has been certified as being in full compliance with the ANSI/EIA 748 EVM Standard.
  - Firm-fixed price, time and materials and labor hour contracts should not normally include a requirement for an EVMS, regardless of dollar value. However, a requirement for an EVMS compliant with ANSI/EIA Standard 748 may be included in such contracts valued at over \$20 million when the contract requirements are solely for development, and the necessary cost and schedule information cannot be obtained absent such a requirement. In these instances the acquisition plan for the contract shall set forth the rationale for the determination to include a requirement for an EVMS compliant with ANSI/EIA Standard 748.
  - Contracts of any type valued at \$20 million or less if the contracting officer and IT investment/program manager determine that an ANSI/EIA Standard 748 compliant EVMS is needed. When such a determination is made, the Acquisition Plan shall set forth the rationale for the inclusion of the requirement for an ANSI/EIA Standard 748 compliant EVMS was made.
- An integrated baseline review (IBR) is a joint assessment by the contractor and the Government, intended to provide a mutual understanding of the inherent risks in the contractor's performance plans and the underlying management control

systems. Under contracts that include a requirement for an EVMS, the IT investment/program manager may determine that an IBR is required. If required, the IBR will usually be conducted after contract award. If a pre-award IBR is considered necessary by the Government, the Acquisition Plan must discuss why a pre-award IBR is appropriate, including: (i) how it will be considered in the source selection decision, (ii) how it will be conducted in the source selection process, and (iii) whether offerors will be compensated when participating in a pre-award IBR.

- In general, the contracting officer will require contractors to submit EVM reports on a monthly basis.
- For an acquisition that includes a requirement for an EVMS (whether certified or not), the investment/program officer, with the assistance of the contracting officer, will include in the Acquisition Plan, a description of the methodology the Government will employ to analyze and use the earned value data provided by contractor's EVMS to assess and monitor contract performance. In addition, when a validated EVMS is required, the Acquisition Plan should include a discussion on how the contractor's EVMS will be validated for compliance with the standard; and if IBRs will be conducted, how they will be conducted.
- EVMS requirements will be applied to subcontractors using the same rules as applied to the prime contractor.

□ INTERIM AGAR 434 AND 452 SOLICITATION PROVISION, CONTRACT CLAUSE AND USE PRESCRIPTIONS

434.7001 Contracting officers shall include a provision and a clause that contain language similar to that in 452.234-70 and 452.234-71 in solicitations and contracts that require contractors to use a certified EVMS.

(a) If a pre-award integrated baseline review (IBR) is required, use Alternate I of 452.234-70.

(b) If a post-award integrated baseline review (IBR) is required, use Alternate I of 452.234-71.

434.7002 For solicitations and contracts that require an EVMS compliant with ANSI/EIA Standard 748, for which certification by the Government is not required, include in the statement of work a requirement similar to the following:

The contractor is required to have an Earned Value Management System that complies with ANSI/EIA Standard 748; however, Government review and certification of the contractor's management system is not required.

452.234-70 NOTICE OF EARNED VALUE MANAGEMENT SYSTEM (Dec 2005)

- (a) The offeror shall provide documentation that the Government has recognized that the proposed earned value management system (EVMS) complies with the EVMS guidelines in ANSI/EIA Standard 748 (current version at the time of solicitation).
- (b) If the offeror proposes to use a system that does not meet the requirements of paragraph (a) of this provision, the offeror shall submit a comprehensive plan for compliance with the EVMS guidelines.
  - (1) The plan shall -
    - (A) Describe the EVMS the offeror intends to use in performance of the contracts;
    - (B) Distinguish between the offeror's existing management system and modifications proposed to meet the guidelines;
    - (C) Describe the management system and its application in terms of the EVMS guidelines;
    - (D) Describe the proposed procedures for administration of the guidelines, as applied to subcontractors; and
    - (E) Provide documentation describing the process and results of any third-party or self-evaluation of the system's compliance with the EVMS guidelines.
  - (2) The offeror shall provide information and assistance as required by the Contracting Officer to support review of the plan.
  - (3) The Government will review the offeror's plan for an EVMS before contract award.

(End of provision)

*Alternate I:* (Dec 2005) As prescribed in 434.7001(a), if a pre-award integrated baseline review (IBR) will be required, add the following paragraph (c) to the basic provision 452.234-70.

- (c) The Government will conduct an integrated baseline review (IBR), as designated by the agency, prior to contract award. The objective of the integrated baseline review is for the Government and the contractor to jointly assess technical areas, such as the contractor's planning, to ensure complete coverage of the contract requirements, logical scheduling of the work activities, adequate resources, methodologies for earned value and identification of inherent risks.

452.234-71 EARNED VALUE MANAGEMENT SYSTEM (Dec 2005)

- (a) In the performance of this contract the contractor shall use an earned value management system (EVMS) to manage the contract that at the time of contract award has been determined by the Government as compliant with the guidelines in ANSI/EIA Standard 748 (current version at time of award) and the contractor will submit reports in accordance with the requirements of this contract.
- (b) If, at the time of award, the Contractor's EVMS has not been determined by the Government as complying with EVMS guidelines (or the Contractor does not have an existing cost/schedule control system that is compliant with the guidelines in ANSI/EIA Standard 748 (current version at time of award)), the Contractor shall apply the system to the contract and shall be prepared to demonstrate to the Government that the EVMS complies with the EVMS guidelines referenced in paragraph (a) of this clause.
- (c) Unless a waiver is granted by the Contracting Officer, contractor proposed EVMS changes require approval of the Contracting Officer, prior to implementation. The Contracting Officer shall advise the contractor of the acceptability of such changes within 30 calendar days after receipt of the notice of proposed changes from the contractor. If the advance approval requirements are waived by the Contracting Officer, the contractor shall disclose EVMS changes to the Contracting Officer at least 14 calendar days prior to the effective date of implementation.
- (d) The contractor shall provide access to all pertinent records and data requested by the Contracting Officer or a duly authorized representative. Access is to permit Government surveillance to ensure that the EVMS conforms, and continues to conform, to the performance criteria referenced in paragraph (a) of this clause.
- (e) The contractor shall include this clause in subcontracts that are subject to the EVMS requirements of this contract.

(End of Clause)

*Alternate I:* (Dec 2005) As prescribed in 434.7001(b), if a post-award integrated baseline review (IBR) will be required, add the following paragraph (f) to the basic clause 452.234-71.

- (f) An Integrated Baseline Review (IBR) shall be scheduled as early as practicable after contract award, but not later than 180 days after award. An IBR will also be required at (1) exercise of significant options or (2) incorporation of major modifications. Such review will normally be

scheduled before the exercise of the significant option or issuance of the major modification.

A copy of the joint USDA SPE and USDA CIO memoranda of November 22, 2005 and September 29, 2004, and a mini-glossary of terms used in this Advisory are attached.

If you have questions about DR 3130-006, the application of EVM systems to IT investments, or the USDA OCIO thresholds, please contact Dan Stoltz, OCIO, by telephone at (202) 720-9080 or by email to [dan.stoltz@usda.gov](mailto:dan.stoltz@usda.gov).

For other questions about this advisory, please contact Pat Honda by telephone at (202) 720-8924, by fax at (202) 720-8972, or by email to [pat.honda@usda.gov](mailto:pat.honda@usda.gov). This advisory is available on the USDA homepage at <http://www.usda.gov/procurement/policy/advisories.html>.

**EXPIRATION DATE:** Effective until cancelled.

**[END]**



## **Glossary of Terms AGAR Advisory Number 80**

“Capital project” (investment) means the acquisition of a capital asset and the management of that asset through its life-cycle after the initial acquisition. Capital projects (investments) may consist of several useful segments. (OMB Circular A-11)

“Earned value management” (EVM) is a project (investment) management tool that effectively integrates the investment scope of work with schedule and cost elements for optimum investment planning and control. The qualities and operating characteristics of earned value management systems are described in American National Standards Institute (ANSI)/Electronics Industries Alliance (EIA) Standards - 748 - 1998, Earned Value Management Systems, approved May 19, 1998. It was reaffirmed on August 28, 2002. (OMB Circular A-11)

The ANSI/EIA-748 Standard is available from Global Engineering Documents (for a fee) at (1-800-854-7179) or online at <http://global.ihs.com/>. Information on earned value management systems is available at [www.acq.osd.mil/pm](http://www.acq.osd.mil/pm).

“Development, modernization, or enhancement (D/M/E) costs.” Costs for new investments, changes or modification to existing systems that improve capability or performance, changes mandated by the Congress or agency leadership, personnel costs for project (investment) management, and direct support. (USDA CPIC Guide for Fiscal year 2007)

“Integrated Baseline Review.” An IBR is a formal review conducted by the government program manager and technical staff, jointly with their contractor counterparts, following contract award to verify the technical content of the performance measurement baseline and the accuracy of the related resource (budgets) and schedules. An IBR will also be performed when work on a production option of a development contract begins or, at the discretion of the program manager, when a major modification to an existing contract significantly changes the existing PMB. When major events occur within the life of a program, e.g. PDR, CDR, etc., and a significant shift in the content and/or time-phasing of the PMB occurs, the PM may conduct a review of those areas affected by the change with the associated resources and schedules. The intent is for the IBR to be a continuous part of the process of program management by both the government and the contractor. (Excerpt from Acquisition Community Connection Website - [www.dau.acq.mil](http://www.dau.acq.mil))

“Major acquisition” means a capital project (investment) that requires special management attention because of its: (1) importance to an agency’s mission; (2) high development, operating or maintenance costs; (3) high risk; (4) high return; or (5) significant role in the administration of an agency’s programs, finances, property or other resources. The agency’s documented capital programming process should include the criteria for determining when an investment is classified as major. (OMB Circular A-11)



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FROM: W. R. Ashworth  
Senior Procurement Executive

David Combs  
Chief Information Officer  
Office of the Chief Information Officer

SUBJECT: Requirements for Use of Earned Value Management in  
Major Information Technology Investments

NOV 22 2005

*for Steve Heggston*

*David M. Combs*

NOV 22 2005

This memorandum provides the Department of Agriculture's (USDA) policy for incorporating Earned Value Management (EVM) in major Information technology (IT) investments. EVM is not a specific system but rather a project management technique for measuring real physical progress of a project, taking into account the work completed, the time taken and the costs incurred to complete that work. EVM compares the work finished with the original project estimates and identifies variances and trends so that the project manager can be proactive and take timely action to address factors adversely impacting the project.

This is in addition to the previous information provided in a memorandum signed by the USDA Chief Information Officer (CIO) and Senior Procurement Executive (SPE) dated September 29, 2004, and is issued in compliance with the Office of Management and Budget's (OMB) memorandum of August 4, 2005.

For major IT investments, OMB Circular A-11, Part 7, Planning, Budgeting, Acquisition and Management of Capital Assets, requires the use of an Earned Value Management System (EVMS) that meets the American National Standards Institute (ANSI)/Electronic Industries Alliance (EIA) Standard 748. The requirement to use an EVMS, at the dollar thresholds listed below, applies to both contractor integrated IT projects and IT projects where in-house Government staff serve as the integrator.

The requirements for use of an EVMS apply to the following USDA IT investments:

- For IT investments where planned development/modernization/enhancement (D/M/E) costs exceed \$20 million in D/M/E during the investment life cycle, then the investment must use an EVMS compliant with ANSI/EIA Standard 748.

- For IT investments where planned D/M/E costs exceed \$50 million during the investment life cycle, then the investment must use a validated EVMS compliant with ANSI/EIA Standard 748.
- For IT investments requiring EVMS (see thresholds over), for which IT investment integration will be performed under a contract, the solicitation and contract may require inclusion of an EVMS provision and clause.
- Contracts that support IT investments requiring EVMS, but which are not the IT investment integration contracts, must include requirements for the contractor to provide reports of EVM data for all D/M/E expenditures to the investment integrator (either the Government or Contractor integrator).

The USDA OCIO is providing further guidance and training for program/investment managers on compliance with the foregoing thresholds. The guidance will address both use of EVMS on in-house projects/investments where the Government is the integrator and those projects/investments where a contractor is the integrator.

The USDA SPE in an Agriculture Acquisition Regulation (AGAR) Advisory will issue specific policy and procedures for incorporating EVMS in USDA contracts. The AGAR Advisory will address the criteria for requiring a formally validated EVMS compliant with ANSI/EIA-748; an EVMS compliant with ANSI/EIA-748 but not formally validated; and criteria for including requirements for integrated baseline reviews (IBRs). The determination to include a requirement for an EVMS in contracts is based both on the overall IT investment estimates and, separately, the contract type and estimated value. Therefore, coordination between the IT investment/program manager and the contracting officer is essential in properly applying the EVMS requirement to contracts.

There is currently a Federal Acquisition Regulation (FAR) Case in process to incorporate requirements for inclusion of EVMS provisions and clauses in solicitations and contracts. Upon issuance of the formal change to the FAR, the AGAR Advisory will be updated as necessary.

USDA's continuing improvement in effective management of its IT investments through actions such as implementation of EVMS, will enable program managers and senior management to track the progress of IT investments and enhance USDA's ability to make informed decisions concerning these investments. We appreciate your support in ensuring that USDA complies with the requirements for use of EVMS in our investments.

cc: Agency Deputy Administrators for Management  
Heads of the Contracting Activity Designees



**United States  
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TO: Agency Heads  
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FROM: Scott Charbo  
Chief Information Officer

SEP 29 2004

W.R. Ashworth  
Senior Procurement Executive

SEP 29 2004

SUBJECT: Earned Value Management Requirements for Major Information  
Technology Investments

The purpose of this memorandum is to highlight the requirement for all Agency Heads to implement Earned Value Management (EVM) on major information technology (IT) investments. EVM is not a specific system or tool set, but rather, a set of guidelines for a management control system. Put in practice, EVM is a management tool used by both contractor and government program managers to have visibility into technical, cost and schedule progress on their investments. EVM has proven to be an accepted management practice for well over 25 years.

Dedicated use of the EVM approach in managing USDA major IT investments will ensure that a common, effective set of measurement standards are in place for assessing project performance, status and progress.

Background

Office of Management and Budget (OMB) Circular A-11 requires that major IT investments categorized as either in Development/Modernization/Enhancement or Mixed Life Cycle will use an EVM approach that conforms to American National Standards Institute (ANSI)/Electronic Industries Alliance (EIA) Standard 748, "Earned Value Management Systems." Investments will, through application of EVM, show how close the project is to meeting the approved cost, schedule and performance goals. In addition, if the investment cost, schedule or performance variances are ten percent or greater, OMB requires the concurrence of the Secretary in the need to continue the investment.

Due to variations in organization, products, and working relationships, it is not feasible to prescribe a universal system for cost and schedule control, relative to the scope of an investment. Earned Value Criteria (<http://www.acq.osd.mil/pm/faqs/criteria.htm>) will help in determining whether earned value management systems in place for each investment are acceptable.

### Specific Requirements

1. All Agency Heads are responsible for implementing an ANSI/EIA Standard 748 compliant process for major IT investments with significant development/modernization costs by October 30, 2004 or providing a definitive plan for when it will be fully implemented.
2. All Agency Chief Information Officers (CIO) will work with the Project Managers of major IT investments to ensure that they identify in their contract requirements and specifications the specific information needed from the contractor to support EVM. Additionally, the Project Managers must also capture similar data for government expenses to enable the use of EVM.
3. The Project Managers for major IT investments will report monthly to the Departmental CIO on planned versus actual cost and schedule information through updates to the project plan included in the Department of Agriculture's (USDA) project and portfolio management system (currently WorkLenz). These updates should be completed by the fifth working day of each month for the previous month. The Office of the Chief Information Officer will review and store the monthly data to monitor progress of the major IT investments and use the data to report to OMB as required.

Assistance in implementing this requirement will be provided by the Departmental CIO staff. USDA is using WorkLenz as its software tool to support EVM and reporting. Additional training for using WorkLenz to support EVM and reporting will be provided in the coming months. Training on EVM is also available as part of the Department's ongoing Project Management classes as well as from a variety of external sources, including the Project Management Institute's College of Performance Management.

### Summary

USDA's ability to effectively manage its IT investments, wisely use its resources, and support its annual budget requests with required project information, will greatly enhance its ability to acquire needed funding and meet its goals and objectives. If you have any questions concerning the subject of EVM and related requirements, please have your staff contact Marilyn Holland, Acting Associate CIO for Information Resources Management at 202-720-5865.

cc: Head of the Contracting Activity Designees