

# BPA Policy 212-7

## Software Capitalization & Expense

### Finance

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## 1. Purpose & Background

To document Bonneville Power Administration's (BPA's) computer software capitalization and expense policy, requirements and responsibilities for implementation. This policy is in accordance with the accounting guidance listed in section 10, Authorities and References.

## 2. Policy Owner

BPA's Chief Financial Officer

## 3. Applicability

This policy is applicable to all computer software including application maintenance, upgrades and enhancements. This policy also applies to BPA's power system control operations and grid operations software.

## 4. Terms & Definitions

- A. **Application Development Stage:** Begins after the preliminary stage and continues throughout the life of the project. In this stage, management has committed to funding the computer software project, and it is probable that the project will be completed and the software will be used as intended.
- B. **Application Maintenance:** A modification to an existing software application which results in tests, adjustments, repairs, or replacements that keep the software in proper working order.
- C. **BPA's Power System Control Operations and Grid Operations Hardware/Software Components:**
  - 1. Computer hardware/software includes the cost of hardware and software to provide scheduling, system control and dispatching, system planning, standards development, market monitoring and market administration for BPA. Items include, but are not limited to:
    - a) Servers
    - b) Workstations
    - c) Energy Management System (EMS) hardware/software
    - d) Supervisory Control and Data Acquisition (SCADA) system hardware/ software
    - e) Peripheral equipment
    - f) Networking components
    - g) Software licenses
    - h) User interface software

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- i) Modeling and Database software
  - j) Reliability applications
- 2. Tracking and monitoring software
- 3. Operating, planning and transaction scheduling software
- D. **Computer Software:** Software developed and used to support BPA’s internal business functions. Per Financial Accounting Standards Board (FASB) guidance, such software should not be developed or purchased for purposes of further sale to external parties. Software can be acquired, internally developed, or modified to run on general purpose hardware. Software types include application and operating system programs, databases or data warehouses, procedures, rules, and associated documentation pertaining to the operation of a computer system.
- E. **Fees Paid in a Cloud Computing arrangement:** (Also known as hosting arrangement.) In connection with the licensing of software products, an arrangement in which an end user of the software does not take possession of the software; rather, the software application resides on a vendor’s or a third party’s hardware, and the customer accesses and uses the software on an as-needed basis over the Internet or via a dedicated line.
- F. **Post Implementation (Operating) Stage:** Occurs once the project has been placed in service and is operating as intended.
- G. **Preliminary Stage:** Includes determination of performance requirements, formulation and evaluation of alternatives, determination of the existence of needed technology, final selection of alternatives, and possible invitation to different vendors to exhibit their products.
- H. **Upgrades and Enhancements:** Modifications to existing software that will result in additional functionality. These modifications enable the software to perform tasks it was previously incapable of performing. Upgrades and enhancements normally require new software specifications and may also require a change to all or part of the existing software specifications.

## 5. Policy

- A. Generally Accepted Accounting Principles (GAAP) are the primary guidance used by BPA for identifying capital expenditures.
- B. Capitalization is met when there is a documented measurable future benefit and expected life of the software/hardware product or project is greater than one year. Computer software costs incurred during the Application Development Stage must exceed \$100,000 and hardware must comply with the personal property threshold at \$10,000 per functioning unit.

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- C. All Computer Software projects must be approved and authorized through BPA’s capital project approval process, which includes an approval by the Chief Information Officer (CIO). Management approval is required per Accounting Standard Codification (ASC) 350-40 Intangibles Internal-Use Software.
- D. Combined costs on vouchers billed to BPA should be separated and either capitalized or expensed, depending on the individual nature of each cost item. Where it is not possible to separate costs, all costs are expensed.
- E. Projects are expensed in the period identified if they do not meet the capitalization criteria specified in this policy.
- F. **Requirements for capitalization of Computer Software (cost components):**
  - 1. A. **Capital components**
    - a) Only the costs of the Application Development Stage are taken into consideration when determining capitalization eligibility at \$100,000. No other project stage expenditures are considered when determining capitalization eligibility.
    - b) Costs for Computer Software purchased separately from hardware, BPA-developed software, or software that is modified after purchase, are recorded separately, and capital investment is depreciated on a straight-line basis over a period not to exceed five years.
    - c) Costs for Computer Software purchased with computer hardware as an integral part of the equipment are capitalized and the capital investment is depreciated over the useful life of the computer hardware. Costs for general application software (e.g. Microsoft Access, Excel, and Word) not integral to the equipment are expensed. The cost of software is not additive to the cost of hardware to meet the personal property policy capitalization threshold (See BPA Policy 212-4 Personal Property Capitalization).
    - d) Allowance for Funds Used During Construction (AFUDC) is capitalized only during the application development stage (See BPA AFUDC Policy).
    - e) Capitalization should cease no later than the point at which a Computer Software project is substantially complete, requires no further testing and is ready for its intended use. For each module or component of a Computer Software project that is not dependent on another component or module to be functional, depreciation should begin when the module or component is ready for its intended use. For modules or components that are dependent on future completion of another module or component, depreciation should begin when the related modules or components are completed and in service.
    - f) System requirement and design specifications that contribute to the Application Development Stage undertaken after the buy/build management approval can

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be capitalized; however, costs for these activities must be monitored and expensed in the period if the project is cancelled.

- g) Fees Paid in a Cloud Computing Arrangement are treated as capital if there is a contractual right to take possession of the Computer Software at any time during the hosting period without significant penalty (see ASC 350-40) and it is feasible for the customers to either run the software on their own hardware or contract with a third party unrelated to the vendor to host the software. Arrangements not meeting the above criteria should be accounted for as an expense service contract.

**2. Expense components:**

- a) The cost of business process reengineering activities, whether done internally or by third parties, is expensed as incurred.
- b) External maintenance costs are expensed as incurred. Where it is not possible to separate costs on a cost-benefit basis between maintenance and upgrades and enhancements, all costs are expensed. If external maintenance costs are combined with specific upgrades and enhancements, the costs are allocated between the elements in the contract. The allocation is based on objective evidence of fair value of the elements in the contract, not necessarily on the separate prices stated within the contract.
- c) Change management activities are expensed as incurred.
- d) All costs of training employees are expensed, both for employees trained in how to use the developed Computer Software and for employees involved in the development of the Computer Software. The rationale is that an entity trains employees, and since employees can leave at any time, the future economic benefits of the cost of training are uncertain.
- e) Data conversion costs other than the costs to develop or obtain Computer Software that allows for access or conversion of old data by new systems are expensed as incurred.
- f) If internal maintenance costs cannot be separated on a reasonably cost-effective basis between maintenance and minor upgrades and enhancements, then all such costs are expensed.
- g) All internal and external costs incurred during the Preliminary Stage are expensed.
- h) General and administrative costs and overheads are expensed.
- i) All capital expenditures are expensed if there is not proper approval documented at the start and throughout the project.

Contact Asset Accounting (FRP CONTRACT AND PAR REVIEW mailbox) for guidance.

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## 6. Policy Exceptions

None.

## 7. Responsibilities

- A. **The Executive Vice President and Chief Financial Officer (CFO):** Delegated the authority by the Administrator to set accounting policies deemed necessary to keep complete and accurate accounts of operations, including all funds expended and received in connection with acquisition, transmission, and sale of electric energy and other BPA services.
- B. **Accounting Officer:** Establishes accounting policy and provides technical accounting guidance on capitalization policies.
- C. **Accounting and Reporting Managers:**
1. Provide accounting functional guidance and oversight to BPA's financial management systems.
  2. Establish BPA and FCRPS accounting requirements and reporting mechanisms in compliance with applicable policies, laws and regulations.
- D. **The Chief Information Officer (CIO):**
1. Reviews and approves projects consistent with the criteria outlined in this policy.
  2. Considers Agency Prioritization Steering Committee (APSC) reviews and recommendations for approval or disapproval on all Computer Software projects to be capitalized via BPA's capital project approval process.
  3. Monitors IT budgets to ensure sufficient capital budget is available.
  4. Ensures proper and sufficient documentation for project authorization is completed.
  5. Adheres to this policy, leveraging the IT Project Management Office and Project Managers to ensure that both capital and expense costs are properly charged to appropriate work orders. Costs refer to all project-related costs and include subject matter expert costs for persons outside of the IT organization.
- E. **The IT PMO Manager:**
1. Upon notice that the Computer Software is completed and ready for implementation, ensures the IT project manager has reviewed and confirmed all capital costs.
  2. Ensures timely unitization of all capital projects (closed when substantially complete).
  3. Notifies Asset Accounting (FRP) when Computer Software or hardware is obsolete and no longer in use and ready to be retired.

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- F. **All BPA Managers:** Establish operational procedures, practices and relevant training to ensure the work results conform to established BPA policies.
- G. **BPA Staff and Subject Matter Experts:** Follow this policy.

**8. Standards & Procedures**

**Common capital and expense costs during phases of Computer Software development**

- A. Preliminary Project Stage expense activities include, but are not limited to:
  - 1. Review of alternative projects
  - 2. Determination of performance and system requirements
  - 3. Requests for proposals (RFP)
  - 4. Computer software demonstrations by vendors
  - 5. Cost-benefit analysis
  - 6. Selection of a vendor or consultant to assist in the development or installation of the Computer software
  - 7. Process reengineering: The effort to reengineer the entity’s business process to increase efficiency and effectiveness. This activity is sometimes called analysis, determining best-in-class, profit and performance improvement development, and developing should-be process.
  - 8. Current state assessment: The process of documenting the entity’s current business process, except as it relates to current Computer Software structure. This activity is sometimes called mapping, developing an as-is baseline, flow charting, and determining current business process structure.
  - 9. Restructuring the work force: The effort to determine what employee makeup is necessary to operate the reengineered business processes.
- B. Application development stage capital activities include, but are not limited to:
  - 1. Detailed system requirement specifications
  - 2. General project plan
  - 3. Creation of system design specifications, development plan, security plan
  - 4. Creation of program code or configure commercial off-the-shelf Computer Software
  - 5. Conduct unit, system, integration, and system acceptance testing
  - 6. Subject matter expert (SME) testing/direct participation
- C. Post-implementation (operating) stage is expensed and includes, but is not limited to:
  - 1. End user training

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2. Data conversion
3. Decommissioning of replaced systems
4. Conducting lessons learned
5. Archiving old data and/or project documentation
6. Closing work orders

## 9. Performance & Monitoring

These A-123 controls are used to monitor compliance with this policy:

- A. 3.B.1-3 TS Business Case Creation and Approval
- B. 3.B.4 TS Work Order Creation and Business Case Funding
- C. 3.C.1.a Work Order Review and Project Analysis
- D. 3.C.2.a Month-End Processing
- E. 3.C.3.a Depreciation & Amortization
- F. 3.E IT Assets

## 10. Authorities & References

- A. ASC 350 Intangibles-Goodwill and Other; 40 Internal-Use Software (former SOP 98-01)
- B. ASC 720 Other Expenses; 45 Business and Technology Reengineering (former EITF 97-13)
- C. ASC 980 Regulated Operations; 835 Interest (former FAS 71, paragraph 15)
- D. ASC 980 Regulated Operations; 985 Software; 20 Cost of Software to be Leased, Sold, or Marketed (former FAS 86, paragraphs 26 and 37)
- E. Federal Energy Regulatory Commission (FERC 18 CFR pt. 101)
- F. BPA Policy 212-4, Personal Property Capitalization
- G. BPA Policy 240-3, Capital Project Authorization
- H. BPA Accounting Manual, Chapter 3, BPA's Allowance for Funds Used During Construction (AFUDC) Policy

## 11. Review

This policy is scheduled for review in 2021.

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## 12. Revision History

<b>Version Number</b>	<b>Issue Date</b>	<b>Description of Change</b>
1	05-18-2016	Migration of content to new policy format
2	8-18-2016	

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