

# PROJECT MANAGEMENT GUIDELINES AND POLICIES

## PROJECT MANAGERS AND THEIR RESPONSIBILITIES

### 1. INTRODUCTION

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The Bonneville Power Administration Transmission Business Line (TBL) provides safe, reliable, flexible, and environmentally sensitive transmission products. TBL Project Managers (PMs) ensure that TBL projects are carried out smoothly, efficiently and cost-effectively within a framework of maximum organizational cooperation and communication.

This guide clarifies PM responsibilities and performance expectations on TBL projects. It provides guidance on the execution of PM duties, coordination with project personnel and management reporting. The procedures and responsibilities included in this document may be modified for small projects (less than \$20,000 in cost), which may be managed by combining projects into groups or stages.

### 2. ASSIGNMENT OF PROJECT MANAGER (PM)

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**The PM is THE ONLY Project Manager.** Each TBL project needing a PM will have only **one** PM assigned to manage the overall project. That individual will be identified in the BPA Work Plan. Other parties and project team members included in project execution may use titles such as environmental project lead, lead designer, project engineer, project architect, field construction foreman/superintendent, contract construction manager, or crew foreman/lead.

The PM will see that Project Design Plans are completed and coordinated consistently with established procedures. The PM will work with the Manager of Project Management and other performance managers, team leads, resource coordinators, and resource managers in managing assigned projects.

- **PM Selection Criteria**

Factors considered in Project Managers selections include:

- Project complexity
- Project political, marketing, and environmental sensitivities
- Individual technical expertise and depth of experience

- Past PM performance record
- Demonstrated ability to problem-solve and work well with project “stakeholders”
- Knowledge of contracting & safety related issues
- Work on related projects

The Manager of Project Management (MPM) will make project management selections within the TBL. For PM assignments made from outside TNP, the MPM will solicit recommendations from TBL organizations in making a selection. PM assignments must be coordinated with the appropriate performance managers for the use of qualified candidates.

- **Detail Assignments:** Individuals may be detailed to serve from across the TBL through administrative transfers or other means. Such assignments will be for specific time periods. Reasons for such selection could include professional growth, specialty experience, complexity of political and contractual issues or criticality of the project.
- **Startup:** PM assignment responsibilities will normally begin after detailed system planning studies are completed and/or contracts are signed. However, a preliminary PM might be assigned during the early stages of a project to assist marketing, planning and operations and/or contractual negotiations to refine data included in the proposal package (including proposal estimates, potential schedule, basic electrical plans of service, environmental, routing alternatives, etc.).
- **Small Projects:** Small occurring projects can have a PM identified to handle all current and new projects in a certain category (i.e., arrestors, batteries or disconnect switches).

### **3. PM DUTIES AND RESPONSIBILITIES**

PM duties and responsibilities fall into a number of general categories where diligence, control and decisive action are needed to achieve a successful project:

#### **PROJECT TEAM SELECTION**

An initial PM task is to assemble a project team. Members of this core group will represent organizations involved in the project. Project team members will come and go as various project stages are completed. PM's must work diligently with performance managers and team leads to assure assignment of the most qualified members to the project team.

## **PROJECT COSTS**

- **Cost Review:** The PM and project team are responsible for ongoing information and accuracy of estimates during all stages of a project. The PM must closely monitor costs and budget input until Project Work Orders (WO's) are closed. This includes ensuring that all work orders are revised with the latest plan-of-service estimates through completion of the work. As part of the Work Order post-energization and closure-analysis process, the PM must identify and reconcile significant material and labor cost discrepancies for all project Work Orders. (This involves working with analysts in Scheduling and Estimating as well as those in Plant Accounting.)

For V2C & V4C & V7C projects, the PM will work closely with the environment program coordinator for work items capitalized.

The PM will regularly review project costs for compliance with authorized budgets and take appropriate action before overruns are encountered.

**Cost Overrun/Scope Change Information:** In the event that there are significant cost changes or scope changes or schedule changes, it is the PM's responsibility to notify network planning, customer service engineering and scheduling and estimating (especially if changes may require re-assessment of budget impacts by Program Coordinator & Matrix Team). In some cases it may be appropriate to place the project "on hold" until an analysis has been completed. In some cases it may be appropriate to cancel the project all together. All team members and project participants are responsible for creating and reviewing their respective portions of project estimates and for monitoring cost deviations. Team members need to inform the PM of any cost changes during the design, materials procurement, construction, commissioning and energizing the project.

All charging organizations need approval from the PM to charge to authorized project budgets. PM's must deduct unauthorized charges against Project Budgets when they are detected and validated. The PM can reject unauthorized charges from the project PL-6s and transfer them to the charging organization.

**Tracking:** The PM will track all major (over \$10,000 or 5 percent of the budget) and critical procurements for cost control and project documentation. The PM should initial off all major procurement actions including Material Requests (MRs), Procurement Requests (PRs) and other procurement actions or services (including construction contracts). The PM also may delegate this action. Additional procedures may be developed to take care of multiple project purchases under a single MR or PR.

- **Invoices:** PM's will review, record, and track Architect Engineering (A&E) and Technical Design Service (TDS) invoices after the technical area specialist has verified the accuracy of the invoice.

### **OVERTIME**

- The construction organization and the PM should reach agreement and have a commitment on schedule and cost of the project. During the design and construction phases of a project, the PM shall follow the progress. If unforeseen problems occur, such as lack of resources, late manufacturer drawings, material/equipment deliveries, or differing site conditions, any of which could impact the project schedule, the PM shall consult with the appropriate Performance Managers to determine the best corrective action, including use of overtime to make up for schedule delays.

### **PROJECT TEAM ROLE CLARITY**

- It is vitally important that PM's are clear with project team members in regards to project responsibilities, deliverables, delegation and expectations. This project role clarity should be discussed early in a project before problems develop.

### **ENVIRONMENTAL OVERSIGHT**

PM's must develop (in consultation with the Office of Environment) a scope of work and estimates for the projects necessary environmental work. The extent of environmental work required and public involvement strategy will be developed through consensus.

### **METHOD OF DESIGN CONSTRUCTION**

At the point the PM is selected and a preliminary scope, schedule and budget have been established, design and construction resources must be identified.

In regards to construction resources, the PM will contact Transmission Field Services as a first step in acquiring the necessary construction resources. The Construction Coordinator provides the single point of contact and the interface with the Construction organization and the appropriate Region/Regions.

The decision to contract or outsource workload may be appropriate based on schedule, scope of work, budget and resource availability, with the intent being to utilize internal resources at their most effective level. A decision to outsource work must be in the best interest of the Transmission Business Line and BPA. If conflicts arise between individual PM's and Design/Construction organizations, the decision to outsource can be made by the MPM.

The PM will communicate the outcome of these discussions to the program coordinators, reimbursable project customers and other affected parties. The PM will work with Customer Service Planning or the Network Planning Engineer and with the TBL account executive to make sure the BPA design construction assignment is consistent with the customers agreement.

### **PROJECT DECISION MAKING**

Project Managers are the final authority on project technical decisions. However, PM's are often not experts in technical areas crucial to a project success. BPA's technical expertise is such that the PM can usually rely on the recommendations provided by a project team member. However, if there are seemingly conflicting alternatives, the PM is empowered to make the final project decision. PM's are not empowered to make project decisions that would negatively impact the safety and reliability of the system or is in violation of reliability codes or standards.

### **MATERIAL CONTRACTS TECHNICAL SUPPORT**

The Project Manager is accountable for all project costs, including material acquisition. As the project team is assembled, the PM will coordinate with Acquisition Services delineate and assign Commodity Management/Contracting Officer's (CO) support.

The PM may serve as the contracting officer's technical representative (COTR) on material contracts. However, when additional technical support is needed, the PM will coordinate with the CO and the appropriate team leads in TN to select and assign COTR responsibility. The PM determines the level of risk, selects the range of technical services required for each contract, communicates these requirements to the CO and COTR and assures that project estimates account for the cost of these services. The PM has the authority to revise the range of COTR services required for a contract, but must communicate all significant changes to the CO and COTR.

The PM determines the frequency and method of conducting field trips associated with material contracts to be charged against the project.

The PM tracks all Field and Contract Modification Reports (BPA F4220.06e) issued under contracts that are part of the assigned project.

The PM may delegate portions of these responsibilities to qualified project team members as needed.

## **4. MEETINGS**

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Meetings will naturally occur on an as-needed basis during the course of a project. However, three particular meetings can help provide necessary structure for a successful project:

- **Scoping Meeting:** The PM will hold a Project Scoping session at the beginning of a project. Attendance should be broad (beyond expected team members), including system planners, perspective team members and/or representatives of interested organizations. Early meeting notification should be provided to encourage good regional attendance. This meeting should be documented as well. Key factors to be considered at a scoping meeting should include the following:
  - Review PRD
  - Review project estimates
  - Review project schedule
  - Materials
  - Role clarity
  - Identify potential problems
  - Assignments
  
- **Constructability Review Meeting:** (These general procedures apply primarily to Force Account substation work). During the preliminary design stages, the PM will hold a Constructability Review meeting with the district chief operator and maintenance foreman, TLM (if needed), the construction foreman and a T&E engineer assigned to the project. The goal is to ensure that the project can be installed, tested, operated, and maintained as intended and to facilitate better coordination of projects with field personnel. The PM will hold the meeting at the project construction site or at Headquarters (if a print review of the preliminary design is sufficient for all concerned or regional office).

The Constructability Review should confirm site-specific physical and electrical project requirements. Key factors to be considered should include the following:

- Sequential step plans to align and minimize outages
- Outdoor electrical clearances
- Space for orderly removal of old equipment and plans for cutover to new equipment
- Soil and construction debris disposal (PAC)

The PM should ensure that this session is documented. If there are changes, these changes and their justifications are used to prepare a new estimate and a revision to

the work order. Documented changes will become part of the official project baseline cost and schedule adjustments.

### **Constructability Review Steps**

At a minimum, the Constructability Review should specifically cover the following items/issues:

1. Basic Project Background
    - One-Line Review
    - Switching and Outage Arrangements
    - Customer Contacts-Agreements Exhibits
    - Construction Responsibilities
    - Cost Estimates
    - Schedule
    - Soil & Debris Disposal (PAC)
  2. Major Equipment
    - Schedule of Delivery
    - Special Arrangements
  3. Relay and Control
    - Switchboard Arrangements
    - Cutover Plans
    - Retirement Details
  4. Testing and Cutover Arrangements
  5. Drawing (Preliminary) Review
    - Completeness
    - Identification of Missing Details
  6. Unresolved Issues and Design Holds
    - Schedule for Resolving Issues
    - Design Release Date
    - Procurement Issues
- **Post Construction Meeting:** This meeting should be held when needed. It should be considered as a process improvement opportunity, where problems that developed during the course of a project can be openly discussed to improve on future projects. Any project team member or management official can request a postconstruction meeting.

Minimally, the meeting should cover the following items:

- Actual vs estimated costs
- A tabulation of all cost charges with explanatory notes
- The actual vs planned schedule of significant activities

A short report should document the meeting. It must be fair and unbiased in presenting project problems and lessons learned.

- **Other Meetings:**

PMs will attend and actively participate in all preconstruction, project management, “donut,” and other special meetings.

The MPM will chair a monthly meeting to review TBL projects. Regional representatives and other "stakeholders" will be encouraged to attend. Special emphasis will be placed on the following subjects:

- Review of TBL projects
- Overall project management issues
- PM tool development
- Other training and discussion as time permits.

This meeting does not substitute for regular, specific project design review and other project meetings.

## **5. SCHEDULE MANAGEMENT**

- **Scheduling Tools:** The PM will use the appropriate (BPA) schedule management tools available, including the following:
- **Closing Notices:** The PM will sign off on closing notices after the significant items (postenergization) are completed and a postconstruction meeting has been conducted.
- **Reporting Project Event Dates/Delays:** The PM must ensure the timely reporting of major project event dates, coordinated with the TBL Work Plan. Such reporting includes all types of projects, including Engineer-Procure-Construct (turnkey/EPC).
- **Schedule Coordination:** Schedule management is to be coordinated closely with cost management. The PM will carry out the following activities:

- Participate in initial schedule planning (during the preliminary estimating phase)
- Monitor and coordinate actual schedule accomplishments (reporting)
- Schedule recovery for anticipated slippage, including material shortages/delays
- Assist the construction planner, outage coordinator, and outage dispatcher in planning and scheduling of system outages and in the development of construction step plans
- The district Chief Operator should be included in the outage planning process
- **Schedule Review:** The PM should review and update the schedule every two weeks throughout the project with special emphasis on the design and construction period.

## **6. PROJECT CONFLICTS**

Assigned PM's will need to resolve both technical and administrative project problems. They will raise issues of nonperformance or priority conflicts with the appropriate performance manager and/or the MPM.

Priority conflicts are those issues related to the following items:

- Resource commitment (contractor/BPA)
- New project workload (which may not be forecasted)
- Material delivery or use priority
- Major scope of plan-of-service changes
- Design problems (including quality issues related to the design)
- Client requests (including regional and account executive requested changes)
- Changes in major project participants

## **7. BPA PERFORMANCE MANAGER COMMITMENTS TO THE PM**

PM's act at the request of BPA managers to carry out projects assigned. BPA senior and mid-level managers support project management by the following commitments:

- Provide and create a positive work environment for project team.
- Provide and develop a highly qualified staff for present and future project requirements, including the establishment of contractor support, if necessary.

- Provide training in subjects, such as:
  - Client service
  - Facilitating meetings
  - Interest-based negotiation skills
  - Conflict management
  - Modern project management skills
- Include in staff training the appropriate use of construction field assignments and other details to broaden PM experience.
- Be active in the selection and recruitment of PM's and project team members.
- Promote and assist the MPM and PM's in recognizing team excellence in project performance.
- Identify and plan for the application of new technology and methods for executing work.
- Provide active feedback to the PM and the Project Team members on their performance, interpersonal communications and organizational boundary issues. Evaluate performance and provide active “coaching” and advice.
- Continue to provide PM's with opportunities for professional growth and development.
- Seek to maintain project workload balance between employees and work groups.
- Assure the technical quality of the work performed by project team members and functional technical specialists.
- Provide and support PM requests for help with communications and organizational boundary questions.
- Provide timely processing of various approvals for procurements, travel, estimate, budget, and other documentation actions.
- Provide incentives for PM's to take educated risks in the development of new project plans and execution details.
- Provide clear guidance on strategic goals and priorities.

## **8. SUMMARY**

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This guide clarifies PM responsibilities and performance expectations on TBL projects. Successful project management will go a long way in ensuring the success of the TBL. This is the first modification of the original PM Guidelines and it is expected to be modified again over time as the PM role evolves. To assist the reader a list of definitions and acronyms follow.

### **DEFINITIONS AND ACRONYMS**

**Work Order Estimate:** The estimate created when the Project Scoping Session is completed. All project team members must be responsible to the PM and to BPA management for the accuracy of this estimate, which serves as the foundation for cost control of the assigned project.

**Construction Coordinator:** Preliminary interface with Transmission Field Services on Construction assignments.

**CO:** The CO has the authority to solicit, negotiate, award and administer contracts to vendors/contractors, and to delegate COTR responsibilities, shipping, receiving, inspection, and acceptance decisions associated with the acquisition of materials/equipment.

**COTR:** The COTR is designated and authorized by the CO to perform technical contract administration activities for a specific contract(s) on behalf of the CO. The COTR designation is based on the responsible Project Manager's recommendation.

**Construction Planner:** Responsible for development of work step plans and outage step plans for construction assigned to Construction and Maintenance Services.

**Engineer – Procure – Construct (EPC) Project:** The current term for turnkey or modified turnkey projects.

**Outage Coordinator:** Responsible for coordinating short-term outages for System Operations and working with the construction planner on long-term planning of outage windows to allow efficient use of resources.

**PAC:** Pollution Abatement Clearance.

**Performance Manager:** Manager who evaluates and rates employee's performance.

**Program Coordinator (PC):** Individual in Scheduling and Estimating who coordinates an entire program, e.g., M4C, BI 200, and so on.

**Project Requirements Diagram (PRD):** A drawing, developed by Customer Service or Network Planning, which establishes the scope of the project.

**Project Management Manager (MPM):** A process/performance manager in Engineering and Technical Services who is responsible for managing the project management process and performance of project managers.

**Project Manager (PM):** Individual assigned to manage all aspects of the project. Usually a GS 11-15 position, depending on scope and complexity.

**Project Planning Engineer (PPE):** Assigned Transmission Planning engineer who will develop preliminary plans concerning the project.

**Project Team:** Individuals, from a variety of organizations, who work on the project.

**Regional Resource Management Specialists:** Individual working directly for regional manager who coordinates regional resources (FTE).

**A&E:** Architect Engineering Contractor

**BFTE:** BPA Full Time Equivalent position

**CFTE:** Contractor Full Time Equivalent position

**FA:** Force Account Central Construction Service workforce or Regional workforce crews

**FRS:** Financial Reporting System

**MR:** Material Request

**PAR:** Project Authorization Request

**PMIS:** Project Management Information System

**PR:** Procurement Request

**TBL:** Transmission Business Line

**TDS:** Technical Design Service Contractor

**T&E:** Test and Energization

**WO:** Work Order Authorization