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COURSE BROCHURE

Electrical Power Project Execution Planning Training Course

14 – 18 November 2027
Muscat

Electrical Power Project Execution Planning Training Course

Ref: 2641_100504 **Date:** 14 – 18 November 2027 **Location:** Muscat **Fees:** 6500 GBP

Electrical Power Project Execution Planning is a 1-week training course for engineers and project leads delivering generation, substation and transmission projects, built around an electrical project execution plan. Grid expansion and plant replacement now run against tight outage windows and fixed energisation dates. Jupiter Prime Training treats execution planning as the core discipline of electrical project leadership.

Why Electrical Power Project Execution Planning Matters Now

Three pressures shape electrical project execution today. Network operators allocate outage windows well ahead and rarely move them. Developers expect firm energisation dates in connection offers. Meanwhile, multi-contractor packages split civil, primary plant, secondary systems and testing between different firms, multiplying interfaces. A project that plans these well energises on time and within budget; one that does not pays for standby crews, liquidated damages and repeated switching requests. The course rests on work breakdown structures, critical path scheduling and earned value methods widely used on capital works.

Who Gains Most from Electrical Power Project Execution Planning

- Engineers who lead substation extension and new-build packages from design freeze to energisation
- Engineers who manage overhead line and cable route construction and outage coordination
- Engineers responsible for power plant electrical balance-of-plant installation and testing
- Planners and controls engineers who build schedules and cost reports for electrical works
- Engineers who coordinate contractor interfaces between primary plant, protection and civil works

Utility project departments gain most when several members attend together.

Electrical Power Project Execution Planning Capabilities

Participants turn a scope of electrical works into a sequenced, costed and risk-checked route to energisation.

- Build a work breakdown structure for substation and line works — package scope and contractor split
- Design a critical path schedule tied to outage windows — network operator switching requests
- Calculate earned value indicators for electrical installation progress — cost forecasts to sponsors
- Specify interface responsibilities between primary, secondary and civil contractors — claim avoidance
- Assess schedule and technical threats in a project risk register — contingency decisions
- Test energisation readiness against commissioning and handover criteria — authorisation to energise

Key Electrical Power Project Execution Planning Terms

- Outage window — an agreed period when a network section is switched out so construction or connection work can proceed safely.
- Energisation milestone — the planned date when new equipment is first connected to a live supply after testing and authorisation.
- Work breakdown structure — a hierarchical split of project scope into deliverable packages that can be estimated, scheduled and assigned.
- Critical path — the longest chain of dependent activities, which sets the earliest possible completion of the project.
- Earned value — a measure comparing budgeted cost of work performed with planned and actual cost to show schedule and cost performance.
- Interface matrix — a table recording which party supplies, installs, tests and accepts each boundary item between contract packages.

Electrical Power Project Execution Planning Day by Day

Day 1: The Electrical Project Landscape

- Project Life Cycle From Connection Offer to Handover — Setting Stage Gates
- Scope Definition for Substation, Line and Plant Packages — Fixing Contract Boundaries
- Work Breakdown Structure for Electrical Works — Allocating Packages to Contractors
- Stakeholder Map of Network Operator, Client and Landowners — Planning Consent Engagement
- Long-Lead Equipment Procurement for Transformers and Switchgear — Protecting Delivery Dates

Day 2: Scheduling Around the Network

- Critical Path Scheduling With Resource Loading — Sequencing Installation Crews
- Outage Window Requests and Switching Plans — Aligning With System Operators
- Testing and Commissioning Sequence Planning — Reserving Time for Protection Checks
- Schedule Float and Look-Ahead Planning — Recovering From Delays
- Energisation Milestone Mapping — Linking Civil, Primary and Secondary Completion

Day 3: Cost Control and Earned Value

- Cost Breakdown and Control Accounts for Electrical Packages — Tracking Budgets
- Earned Value Indicators for Cable and Equipment Installation — Forecasting Final Cost
- Change Control and Variation Pricing — Approving Scope Changes
- Cash Flow Curves for Plant and Grid Projects — Informing Funding Draws
- Progress Measurement Rules for Electrical Works — Agreeing Percent Complete

Day 4: Contractors, Interfaces and Risk

- Interface Matrix Between Primary, Protection and Civil Contractors — Avoiding Gaps
- Contractor Coordination Meetings and Action Logs — Resolving Site Clashes
- Project Risk Register for Electrical Works — Ranking Schedule Threats
- Schedule Risk Ranges for Outage-Dependent Activities — Setting Contingency
- Safety Planning for Live-Adjacent Construction — Protecting Crews Near Energised Plant

Day 5: Practising the Electrical Project Execution Plan

- Package Scope and Breakdown Review for a Substation Case — Confirming Boundaries
- Outage-Linked Schedule for a Solar Plant Connection — Testing Milestone Realism
- Earned Value Status Report for a Line Upgrade — Presenting Cost Forecasts
- Energisation Readiness Checklist — Confirming Handover and Authorisation Steps
- Electrical Project Execution Plan Completion — Presenting the Plan for Approval

Applying Electrical Power Project Execution Planning After the Course

- Rebuild the schedule of one live electrical project around its confirmed outage windows and flag activities with no float.
- Produce an interface matrix for one multi-contractor substation or plant package and agree it with each contractor.

Electrical Power Project Execution Planning Questions FAQ

What is electrical power project execution planning and why does it matter now?

Electrical power project execution planning is the sequencing of scope, time, cost and risk for generation, substation and grid works. It matters now because fixed outage windows and contracted energisation dates leave little room for late equipment or poorly coordinated contractors.

Which roles gain most from electrical power project execution planning training?

Engineers and project leads delivering substation, line and power plant works gain most. You benefit if you request outages or coordinate contractors.

How does electrical power project execution planning differ from a general project management course?

It applies project methods to the constraints of live networks. It centres on outage windows, energisation milestones, testing sequences and interfaces between electrical contract packages.

What do you bring back from electrical power project execution planning training?

You bring back an electrical project execution plan with an outage-linked schedule, earned value reporting and an energisation readiness checklist.

Electrical Power Project Execution Planning: The Way Forward

The electrical project execution plan first informs which outage windows to request and which contract boundaries to fix before tender. Project leads, planners and contractor managers use it to sequence crews and track cost. After its first use, revisit the interface matrix and risk register whenever a window moves or a long-lead item slips.