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COURSE BROCHURE

Power Generation and Network Value Improvement Training Course

19 – 23 April 2027
Singapore

Power Generation and Network Value Improvement Training Course

Ref: 3094_117519 **Date:** 19 – 23 April 2027 **Location:** Singapore **Fees:** 9300 GBP

Power Generation and Network Value Improvement is a 1-week training course for power company asset managers, finance analysts and strategy staff who build an asset value improvement case for a power station or network region. Fuel exposure, tariff reviews and flexible demand make every outage hour a commercial question. Jupiter Prime Training runs this course for teams that must turn engineering performance into measurable financial return.

Why Power Generation and Network Value Improvement Matters Now

Three forces now shape how generation and network owners earn their return. System operators ask plants to start, ramp and stand by more often as variable renewable output grows. Tariff reviewers and shareholders expect spend to show a traceable link to reliability or revenue. Fuel suppliers push risk back onto the asset owner. An owner that reads these pressures well protects margin; one that keeps engineering and finance apart loses value through outages, poor dispatch ranking and weak investment papers.

Who Gains Most from Power Generation and Network Value Improvement

- Asset managers accountable for availability and life extension of units or network sections
- Finance analysts who prepare budgets, cost recovery submissions and investment appraisals
- Strategy staff who set portfolio direction, retirement timing and new capacity priorities
- Commercial officers who negotiate fuel supply, offtake and ancillary service terms
- Performance engineers who measure heat rate, outage causes and network losses

An asset manager, a finance analyst and a commercial officer from one business unit gain most by building one shared case.

Power Generation and Network Value Improvement Capabilities

Participants leave able to price engineering choices and defend them in the language that owners and reviewers use.

- Build a value driver tree that traces unit output to operating margin — portfolio review
- Calculate the cost of forced outages and heat rate drift — maintenance budget setting
- Weigh dispatch, start up and fuel options against their revenue effect — trading and operations
- Compare upgrade, repair and retire options with incremental cash flow — investment committee
- Test value cases against fuel, demand and tariff ranges — finance director
- Communicate a value improvement case in a board paper — executive sponsors

Key Power Generation and Network Value Improvement Terms

- Value driver tree — A diagram that breaks a financial result into the operational measures that cause it, level by level.
- Equivalent availability factor — The share of a period a unit could deliver full output after outages and derates.
- Heat rate — The fuel energy a generating unit burns to produce one unit of electricity; lower means more efficient.
- Merit order — The ranking of generating units by marginal cost that decides which run first.
- Allowed return — The return on network assets that a tariff decision permits the owner to recover from users.
- Incremental cash flow — The difference in future cash between acting on an option and doing nothing.

Power Generation and Network Value Improvement Day by Day

Day 1: Mapping Where Power Asset Value Is Made

- Value Driver Trees for Generation Fleets — Linking Output to Margin
- Network Revenue Building Blocks — Allowed Return and Cost Recovery
- Asset Life Stage Mapping — Where Spend Shifts Value
- Stakeholder Value Lenses — Owners, Customers and System Operators
- Baseline Value Scorecard — Agreeing Starting Measures Across Functions

Day 2: Availability and Performance Economics

- Forced Outage Cost Curves — Prioritising Reliability Spend
- Heat Rate Deviation Accounting — Fuel Cost per Megawatt Hour
- Capacity Factor Loss Trees — Separating Controllable From External Losses
- Network Interruption Cost Estimates — Ranking Feeder and Substation Work
- Maintenance Interval Economics — Balancing Downtime Against Failure Risk

Day 3: Dispatch, Fuel and Revenue Levers

- Merit Order Position Analysis — Improving Dispatch Ranking
- Start Up and Ramping Cost Models — Flexible Operation Pricing
- Fuel Contract Flexibility Review — Take or Pay Exposure
- Ancillary Service Revenue Options — Reserve and Frequency Response Offers
- Network Loss Reduction Cases — Technical Losses and Metering Gaps

Day 4: Building and Testing Value Cases

- Incremental Cash Flow Logic — Isolating the Value of an Intervention
- Option Ranking Matrices — Comparing Upgrade, Repair and Retire
- Sensitivity and Scenario Ranges — Fuel, Demand and Tariff Swings
- Benefit Tracking Registers — Proving Realised Value After Delivery
- Board Paper Structure — Presenting Value Cases to Investment Committees

Day 5: Practising the Value Improvement Case

- Driver Tree Refresh — Applying Day One Mapping to a Live Asset
- Outage and Heat Rate Losses — Applying Day Two Economics
- Dispatch and Revenue Levers — Applying Day Three Options
- Value Case Challenge Panel — Peer Testing of Assumptions
- Asset Value Improvement Case — Completing the Shared Team Output

Applying Power Generation and Network Value Improvement After the Course

- Lead a driver tree session for one unit and agree the three measures that move margin most.
- Rebuild one pending upgrade request as an incremental cash flow case.

Power Generation and Network Value Improvement Questions FAQ

What is Power Generation and Network Value Improvement and why does it matter now?

It links operating and investment choices on power assets to financial return, which matters now because flexible demand and fuel risk turn each outage hour into a measurable loss.

Which roles gain most from Power Generation and Network Value Improvement?

Asset managers, finance analysts, strategy staff, commercial officers and performance engineers gain most. Mixed engineering and finance teams gain a shared language for cost and revenue.

How does Power Generation and Network Value Improvement differ from a course on power plant maintenance or financial modelling?

It sits between the two: maintenance courses improve work methods and modelling courses build spreadsheets, while this one ranks asset options by the margin they create.

What do you bring back from Power Generation and Network Value Improvement?

You bring back a draft asset value improvement case for one of your own assets, with a driver tree, priced loss measures, ranked options and a board paper outline ready for review with your sponsor.

Power Generation and Network Value Improvement: The Way Forward

The asset value improvement case is the first output to use. It informs the next maintenance and capital budget round, where asset managers and finance analysts can rank requests by the margin they protect. After its first use, revisit the driver tree and check whether realised benefits match the case, then adjust the measures that guide next year.