Energy Procurement Training Course: Hedging, PPAs, Tenders, Supplier Terms

10 – 21 May 2027
Tokyo

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Programme Summary

Energy procurement is the subject of this two-week training course for energy, procurement and commercial managers and directors, taught at managerial level and ending in an energy procurement strategy pack for one organisation. Buyers of electricity, gas and fuel face volatile prices, long contracts and growing pressure to source low-carbon supply. The programme moves from market structure to demand, sourcing, hedging and contract terms, using prepared tender and contract records from a utility and an industrial group. Mars Training Centre UK delivers this programme on energy procurement to mixed-organisation cohorts.

The Business Case

Organisations that profile demand, buy in layers and negotiate contract terms deliberately can control one of their largest and least predictable costs. Where energy is bought on renewal dates and supplier proposals alone, exposure builds unseen, clauses transfer risk without review and budgets are missed. Sustainability reporting adds a further demand for evidence behind each supply claim. The programme works on the measures below.

- Energy Cost Variance: Narrows when exposure is hedged to a set policy and contracts match actual demand.
- Contract Risk Exposure: Falls when clauses are reviewed and risk is allocated by agreement.
- Supply Emissions Evidence: Strengthens when sourcing choices are matched to recognised reporting methods.

Principles and Evidence Base

- ISDA Master Agreement: A standard framework for derivative contracts, applied in Session 4 to review hedging terms and limits.
- GHG Protocol Scope 2 Guidance: A reporting method for purchased electricity emissions, applied in Session 8 to match sourcing choices to claims.
- ISO 20400: International guidance on sustainable procurement, applied in Sessions 3 and 8 to set supplier criteria.
- ISO 50001: The energy management system standard, applied in Session 9 to link buying plans to energy reviews.

Intended Participants

- Energy managers who set consumption forecasts and buying plans.
- Procurement heads who run tenders and own supplier relationships.
- Commercial directors who approve long-term supply and offtake commitments.
- Finance and risk leads who set price exposure limits.

Typical settings include utilities, oil and gas operators, manufacturing groups and large property owners.

Learning Outcomes

1. Participants will be able to construct a demand profile and forecast for energy buying decisions.
2. Participants will be able to evaluate sourcing routes and bids against a weighted model.
3. Participants will be able to quantify price exposure and design a hedging policy with limits.
4. Participants will be able to diagnose risk in a power purchase agreement and a supply contract.
5. Participants will be able to prioritise negotiation positions and concessions.
6. Participants will be able to justify an energy procurement strategy to a board.

Programme Structure

Day 1: Energy Procurement Foundations and Market Structure

How do electricity, gas and fuel markets set the price a buyer pays?

- Wholesale Market Price Formation Map
- Supply Chain and Cost Stack Diagram
- Contracted Versus Spot Exposure Table
- Buyer Role and Decision Rights Chart
- Energy Procurement Policy Outline

Day 2: Demand Profiling and Load Forecasting

How is future consumption measured well enough to buy against it?

- Half-Hourly Load Profile Analysis
- Baseload and Peak Split Method
- Demand Forecast Error Review
- Site Consumption Baseline Sheet
- Growth and Outage Scenario Grid

Day 3: Sourcing Routes and Tender Design

Which buying route fits each volume, risk appetite and market condition?

- Fixed, Flexible and Index-Linked Comparison
- Supplier Long-List and Pre-Qualification Form
- Request for Proposal Pack
- Reverse Auction Rules Sheet
- Bid Evaluation Weighting Model

Day 4: Price Risk and Hedging Strategy

How is price exposure quantified and reduced to a tolerable level?

- Value-at-Risk Exposure Calculation
- Layered Purchasing Schedule
- Forward, Swap and Option Payoff Charts
- ISDA Master Agreement Review
- Hedge Policy and Limits Statement

Day 5: Power Purchase Agreement Structures

How do physical and virtual power purchase agreements allocate volume and price?

- Physical and Virtual PPA Comparison
- Pay-as-Produced and Baseload Shapes
- Pricing Formula and Indexation Clauses
- Credit Support and Security Terms
- PPA Term Sheet Build

Day 6: Supply Contract Terms and Risk Allocation

Which clauses move cost and risk between supplier and buyer?

- Volume Tolerance and Take-or-Pay Clauses
- Pass-Through Cost Schedule
- Change in Law and Force Majeure Review
- Termination and Step-In Rights Matrix
- Contract Red-Flag Checklist

Day 7: Negotiation and Supplier Management

How are terms won and held after signature?

- Negotiation Position Map
- Concession Trading Plan
- Supplier Performance Scorecard
- Invoice Audit and Billing Error Log
- Contract Variation Protocol

Day 8: Renewables, Carbon and Sustainable Sourcing

How does low-carbon buying change the offer and the evidence required?

- GHG Protocol Scope 2 Market-Based Method
- Guarantee-of-Origin and Certificate Matching
- ISO 20400 Supplier Criteria
- Carbon Price Sensitivity Test
- Renewable Share Roadmap

Day 9: Flexibility, Storage and Procurement Trends

What do storage, demand response and self-generation add to a buying plan?

- Demand Response Value Estimate
- Battery Storage Dispatch Case
- On-Site Generation Make-or-Buy Test
- ISO 50001 Energy Review Link
- Market Trend Watch List

Day 10: Energy Procurement Strategy for One Organisation

Do the earlier results join into a strategy a board can approve?

- Applying the Session 2 Baseline
- Testing the Session 4 Hedge Policy
- Checking the Session 5 Term Sheet
- Reviewing the Session 6 Red-Flag Checklist
- Completing the Energy Procurement Strategy Pack

Methodology

The programme is a structured exercise built on prepared records from a utility and an industrial group: load data, tender packs, price curves, term sheets and supply contracts. Participants profile demand, score bids, test hedge cases, mark up clauses and defend their positions to peers acting as a procurement committee.

- Suggested activity: Building a layered purchase plan from a half-hourly load profile.
- Suggested activity: Marking up a power purchase agreement term sheet for risk.
- Suggested activity: Negotiating a volume tolerance clause in paired roles.

Capstone Output

Each participant completes an energy procurement strategy pack for one organisation. It holds a demand baseline, a sourcing route decision, a hedge policy, a contract term checklist and a sustainable sourcing roadmap. At work it goes to the board or procurement committee for approval and becomes the reference for each renewal and tender cycle.

Frequently Asked Questions

Is energy procurement training suitable for managers without a trading background?

Yes. Energy procurement is taught from prepared records and templates. You need responsibility for buying, contracts or energy budgets, but no market trading experience.

Which standards does energy procurement rest on in this training?

Energy procurement here rests on the ISDA Master Agreement for hedging, GHG Protocol Scope 2 guidance for emissions reporting, ISO 20400 for sustainable procurement and ISO 50001 for energy management.

How is the strategy pack from energy procurement training used at work?

You take the strategy pack to your board or procurement committee, apply its hedge policy to each purchase and use its contract checklist at every renewal.

How does energy procurement differ from general procurement management?

Energy procurement centres on volatile commodity prices, load profiles and long supply agreements, while general procurement management covers broader category and supplier processes.