ENERGY RISK MANAGEMENT



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Introduction

Energy Risk Management Training Course prepares energy and finance professionals to identify, measure, and control the risks that price volatility creates. Participants work through energy market structures and price drivers, risk identification and governance, market risk measurement with VaR and stress testing, hedging with futures, swaps, and options, credit and counterparty risk, operational and regulatory risk, and risk reporting and control frameworks as one connected discipline. The programme links the exposures an energy business carries with the hedging and control decisions that contain them. As a result, learners gain a practical method for energy risk management. Furthermore, the course strengthens quantitative judgement, hedging discipline, and risk governance.

Energy Risk Management Course Objectives

- Explain energy market structures: crude, gas, power, and LNG.
- Identify price drivers, seasonality, and volatility behaviour.
- Apply risk governance structures and risk appetite setting.
- Apply market risk measurement: VaR, expected shortfall, stress testing.
- Apply hedging instruments: futures, forwards, swaps, and options.
- Apply hedge effectiveness assessment and hedge accounting basics.
- Apply credit and counterparty risk assessment and limits.
- Apply operational, volumetric, and regulatory risk management.
- Apply scenario analysis and Monte Carlo simulation concepts.
- Apply risk reporting, limits monitoring, and control frameworks.

Course Methodology

- Interactive sessions built on energy trading and hedging cases.
- Workshops on VaR calculation, hedging design, and limit setting.

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- Group exercises on scenario analysis, counterparty assessment, and reporting.
- Hands-on practice with risk registers, position reports, and hedging schedules.
- Simulation of a risk committee review and a hedging decision.
- Facilitator coaching and peer review on personal risk management plans.

Who Should Take This Course

- Energy trading and risk management professionals.
- Treasury and commodity finance staff.
- Risk analysts and middle-office specialists.
- Auditors and controllers covering trading and hedging.
- Operations and supply managers in energy firms.
- Consultants advising on energy risk and hedging programmes.

Energy Risk Management Course Outlines

Day 1: Energy Markets and Price Behaviour

- Market structures: crude oil, natural gas, power, and LNG.
- Physical versus financial trading and benchmarks.
- Price drivers: supply, demand, geopolitics, and weather.
- Seasonality, volatility clustering, and price spikes.
- Forward curves, contango, and backwardation.
- Market participants and their risk appetites.
- Case discussion: an unhedged position hit by a price shock.

Day 2: Risk Governance and Identification

- Risk governance structures and the three lines model.
- Risk policy, appetite, and limit frameworks.
- Risk identification across market, credit, and operational risk.
- Risk registers and risk taxonomy for energy portfolios.
- Roles of the risk committee and front, middle, and back office.
- Control design and segregation of duties in trading.
- Workshop: building a risk register for an energy portfolio.

Day 3: Market Risk Measurement and Hedging

- Value at Risk (VaR): variance-covariance and historical simulation.
- Expected shortfall and tail risk concepts.
- Stress testing and scenario analysis design.
- Hedging with futures, forwards, and swaps.
- Options: calls, puts, collars, and cap and floor structures.
- Hedge effectiveness assessment and hedge accounting basics.
- Exercise: designing a hedge for a fuel cost exposure.

Day 4: Credit, Operational, and Regulatory Risk

- Counterparty credit assessment and credit limits.
- Credit exposure, settlement risk, and collateral management.
- Volumetric and demand risk in supply contracts.
- Operational risk in trading and logistics.
- Regulatory risk, compliance, and market abuse rules.
- Model risk, data quality, and valuation control.
- Simulation: assessing a counterparty exposure and limit breach.

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Day 5: Risk Reporting, Limits, and Control

- Risk reporting packs and position reporting.
- Limit monitoring, breaches, and escalation.
- Mark-to-market and valuation governance.
- Monte Carlo simulation for portfolio risk.
- Risk-based decision-making and hedging governance.
- Internal audit and assurance over risk management.
- Capstone: presenting an energy risk management framework.

Conclusion

By successfully completing Energy Risk Management, participants will gain a practical command of energy market structures and price behaviour, risk governance and identification, market risk measurement with VaR and stress testing, hedging with futures, swaps and options, credit and counterparty risk, and risk reporting, limits and control frameworks. They will acquire skills in market risk measurement, hedging design, counterparty assessment, and risk reporting that protect energy margins from volatility. Gentex Training Center designs the programme to help professionals manage energy risk with confidence.

FAQs for the Energy Risk Management course

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Q1 What is the "Energy Risk Management" course about?

It prepares energy and finance professionals to identify, measure, and control the risks that price volatility creates. The course spans energy market structures and price behaviour, risk governance and identification, market risk measurement and hedging, credit, operational and regulatory risk, and risk reporting, limits and control.

Q2 What are the key benefits of the "Energy Risk Management" course?

You gain a practical method for energy risk management that links the exposures an energy business carries with the hedging and control decisions that contain them. The course improves market risk measurement and hedging design, strengthens counterparty assessment and limit setting, sharpens governance and scenario practice, and gives you risk reporting and control frameworks that protect margins.

Q3 What skills will I gain from the "Energy Risk Management" course?

You will develop four core skills: energy market and price behaviour analysis, market risk measurement with VaR and stress testing, hedging design with futures, swaps and options, and credit and counterparty assessment with risk reporting and limit control.

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Q4 What tools, methods, or standards are covered in the "Energy Risk Management" course?

The course covers market structures across crude oil, natural gas, power and LNG, physical versus financial trading and benchmarks, price drivers of supply, demand, geopolitics and weather, seasonality, volatility clustering and price spikes, forward curves, contango and backwardation, risk governance structures and the three lines model, risk policy, appetite and limit frameworks, risk identification across market, credit and operational risk, risk registers and risk taxonomy, the risk committee and front, middle and back office roles, control design and segregation of duties in trading, Value at Risk (VaR) with variance-covariance and historical simulation, expected shortfall and tail risk, stress testing and scenario analysis design, hedging with futures, forwards and swaps, options including calls, puts, collars and cap and floor structures, hedge effectiveness assessment and hedge accounting basics, counterparty credit assessment and credit limits, credit exposure, settlement risk and collateral management, volumetric and demand risk in supply contracts, operational risk in trading and logistics, regulatory risk, compliance and market abuse rules, model risk, data quality and valuation control, risk reporting packs and position reporting, limit monitoring, breaches and escalation, mark-to-market and valuation governance, Monte Carlo simulation for portfolio risk, and internal audit and assurance over risk management.

Q5 How is the "Energy Risk Management" course applied in real-world practice?

Participants apply it to real work such as building a risk register for an energy portfolio, calculating VaR and running stress scenarios, designing a hedge for a fuel cost exposure, assessing counterparty exposure and limits, preparing a risk reporting pack, handling a limit breach and escalation, and presenting an energy risk management framework. The same methods support risk committee decisions and hedging governance.

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