PRICE RISK MANAGEMENT IN THE ENERGY INDUSTRY



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TRAINING CENTER

GENTEX Training Center LLC | Orlando - FL, USA
Info@gentextraining.com

Introduction

Price Risk Management in the Energy Industry Training Course prepares energy and finance professionals to measure and control the price exposure that commodity markets create. Participants work through energy price formation and market structure, price risk identification and exposure measurement, hedging instruments including futures, swaps, and options, hedge design and effectiveness assessment, risk limits and governance, and price risk reporting, scenario analysis, and control frameworks as one connected discipline. The programme links the price movements an energy business faces with the hedging and limit decisions that contain them. As a result, learners gain a practical method for price risk management. Furthermore, the course strengthens quantitative judgement, hedging discipline, and risk governance.

Price Risk Management in the Energy Industry Course Objectives

- Explain energy price formation and market structures across commodities.
- Identify price risk sources: flat price, basis, spread, and timing risk.
- Apply exposure measurement and position reporting.
- Apply forward curve analysis and contango and backwardation concepts.
- Apply futures, forwards, and swaps for price hedging.
- Apply options: calls, puts, collars, caps, and floors.
- Apply hedge ratio design and hedge effectiveness assessment.
- Apply Value at Risk, stress testing, and scenario analysis.
- Apply risk limits, mandate control, and hedging governance.
- Apply price risk reporting, mark-to-market, and dashboard design.

Course Methodology

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- Interactive sessions built on energy price risk and hedging cases.
- Workshops on exposure measurement, hedging design, and limit setting.
- Group exercises on scenario analysis, VaR calculation, and reporting packs.
- Hands-on practice with position reports, hedge schedules, and risk dashboards.
- Simulation of a hedging committee decision and a price shock response.
- Facilitator coaching and peer review on personal hedging plans.

Who Should Take This Course

- Energy trading and price risk professionals.
- Treasury and commodity finance staff.
- Risk analysts and middle-office specialists.
- Procurement and supply managers exposed to fuel prices.
- Internal auditors covering trading and hedging.
- Consultants advising on energy price risk programmes.

Price Risk Management in the Energy Industry Course Outlines

Day 1: Energy Prices and Market Structure

- Price formation in crude, gas, power, and LNG markets.
- Benchmarks, indices, and pricing formulas.
- Physical versus financial trading and delivery points.
- Price drivers: supply, demand, inventories, weather, geopolitics.
- Seasonality, volatility clustering, and price spikes.
- Forward curves, contango, and backwardation.

- Case discussion: an unhedged fuel exposure hit by a price spike.

Day 2: Price Risk Identification and Exposure

- Price risk types: flat price, basis, spread, timing.
- Volume risk and demand uncertainty.
- Measuring exposure by commodity and time bucket.
- Position reporting and trade capture.
- Gross versus net exposure and offsetting.
- Risk registers for price risk.
- Workshop: measuring price exposure for a portfolio.

Day 3: Hedging Instruments and Design

- Futures, forwards, and swaps for price hedging.
- Options: calls, puts, collars, caps, and floors.
- Fixed-for-floating and basis swaps.
- Hedge ratio design and hedge horizon selection.
- Hedge effectiveness assessment and hedge accounting basics.
- Executing, documenting, and monitoring hedges.
- Exercise: designing a hedge for a fuel cost exposure.

Day 4: Measurement, Limits, and Governance

- Value at Risk: parametric, historical, and Monte Carlo.
- Expected shortfall and stress testing design.
- Scenario analysis and price shock modelling.
- Risk appetite, limits, and mandate structures.

- Hedging policy, delegation, and approval authority.
- Segregation of duties and control over trading.
- Simulation: applying limits and responding to a price shock.

Day 5: Reporting, Valuation, and Control

- Mark-to-market and forward curve valuation.
- Price risk reporting packs and dashboard design.
- Limit monitoring, breaches, and escalation.
- Model risk, data quality, and valuation governance.
- Internal audit and assurance over price risk.
- Continuous improvement of hedging performance.
- Capstone: presenting an energy price risk management framework.

Conclusion

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

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FAQs for the Price Risk Management in the Energy Industry course

Q1 What is the "Price Risk Management in the Energy Industry" course about?

It prepares energy and finance professionals to measure and control the price exposure that commodity markets create. The course spans energy prices and market structure, price risk identification and exposure, hedging instruments and design, measurement, limits and governance, and reporting, valuation and control.

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

You gain a practical method for price risk management that links the price movements an energy business faces with the hedging and limit decisions that contain them. The course improves exposure measurement and hedging design, strengthens VaR and stress testing practice, sharpens limit setting and hedging governance, and gives you reporting and valuation control that protects margins from price volatility.

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

You will develop four core skills: energy price and market structure analysis, price exposure measurement across flat price, basis and timing risk, hedging design with futures, swaps and options, and price risk measurement with limits, governance and hedging reporting.

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

The course covers price formation in crude, gas, power and LNG markets, benchmarks, indices and pricing formulas, physical versus financial trading and delivery points, price drivers across supply, demand, inventories, weather and geopolitics, seasonality, volatility clustering and price spikes, forward curves, contango and backwardation, price risk types of flat price, basis, spread and timing, volume risk and demand uncertainty, measuring exposure by commodity and time bucket, position reporting and trade capture, gross versus net exposure and offsetting, risk registers for price risk, futures, forwards and swaps for price hedging, options including calls, puts, collars, caps and floors, fixed-for-floating and basis swaps, hedge ratio design and hedge horizon selection, hedge effectiveness assessment and hedge accounting basics, Value at Risk with parametric, historical and Monte Carlo approaches, expected shortfall and stress testing design, scenario analysis and price shock modelling, risk appetite, limits and mandate structures, hedging policy, delegation and approval authority, segregation of duties and control over trading, mark-to-market and forward curve valuation, price risk reporting packs and dashboard design, limit monitoring, breaches and escalation, model risk, data quality and valuation governance, and internal audit and assurance over price risk.

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

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Participants apply it to real work such as measuring price exposure for a portfolio, designing a hedge for a fuel cost exposure, calculating VaR and running price shock scenarios, applying limits and responding to a breach, preparing mark-to-market valuation and a risk reporting pack, and presenting a price risk framework to a hedging committee. The same methods support hedging performance review and assurance over trading controls.