

CHARTERED 
INSTITUTE OF PROFESSIONAL CERTIFICATIONS

CERTIFIED ENERGY SUPPLY CHAIN DISRUPTION AND RISK MANAGEMENT LEADER™

CESC™

**Fully Accredited
By:**

Chartered Institute of
Professional Certifications

CPD
Certification Service



PROGRAM OVERVIEW



The global energy market has become deeply interconnected, leaving supply chains more exposed to disruption than ever before. **More than 20% of the world's oil consumption moves through critical maritime chokepoints, and disruptions can trigger sharp price spikes across global energy markets within days.** As energy security, affordability, and resilience climb the strategic agenda, organizations must strengthen their ability to anticipate risk, manage uncertainty, and maintain reliable supply.

This certified program equips you with the strategic and practical expertise to manage energy supply chain disruption, geopolitical uncertainty, and market volatility across the energy sector. You will develop advanced capabilities in **geopolitical risk assessment, supplier due diligence, and supply chain resilience**, enabling you to identify vulnerabilities before they escalate into major disruptions. Through **analysis global energy security frameworks, cross-border supply dependencies, regional conflict risks, LNG market disruptions, sanctions exposure, infrastructure vulnerabilities**, you will gain practical insight into the forces reshaping today's energy markets, and learn to assess emerging threats, strengthen energy security, and make informed decisions in an increasingly volatile environment.

ACCREDITATIONS



4.8



4.6



PROGRAM OVERVIEW



The program further sharpens your ability to lead commercially resilient and compliant energy operations. You will gain practical expertise in **structuring Power Purchase Agreements (PPAs), managing LNG procurement strategies, and implementing hedging programs to mitigate against energy supply chain shocks**. You will also strengthen your command of **key regulatory frameworks and critical energy supply chain exposure**, enabling you to build more resilient energy supply networks. Through scenario planning and boardroom crisis simulations, you will develop the confidence to respond decisively to major disruption events, protect organizational performance, and lead strategic risk management across the energy value chain.

On successfully completing the program and passing the Chartered exam, you will earn the **Certified Energy Supply Chain Disruption and Risk Management Leader (CESC™)** designation. This prestigious credential validates your expertise in managing energy supply chain disruptions, assessing geopolitical and market risks, and strengthening organizational resilience. It will also demonstrate your ability to develop effective risk mitigation strategies, safeguard energy security, and lead strategic responses to complex disruption events.

ACCREDITATIONS



4.8



4.6



KEY SKILLS YOU WILL GAIN

From This Program



**ENERGY LIFECYCLE MAPPING
GEOPOLITICAL RISK REGISTERS
TTF PRICE ANALYSIS
SUPPLIER DIVERSIFICATION STRATEGY**

**EARLY WARNING INDICATORS
SUPPLIER DUE DILIGENCE
SUPPLIER MAPPING
COUNTERPARTY RISK MANAGEMENT**

**PROCUREMENT GOVERNANCE
INFRASTRUCTURE DEPENDENCY MAPPING
CASCADING FAILURE ANALYSIS
LNG RISK ASSESSMENT**

**WHOLESALE MARKET ANALYSIS
VALUE-AT-RISK ANALYSIS
MARKET INTELLIGENCE
PPA STRUCTURING
PPA NEGOTIATION**

**LNG SPA ANALYSIS
FORCE MAJEURE MANAGEMENT**

YOUR FACULTY DIRECTOR



Eugene Tan

Faculty Director for Australia and APAC

Eugene Tan is a distinguished supply chain and business transformation leader with more than 30 years of experience across the energy, oil and lubricants industries in Asia Pacific. **He has held senior leadership roles with global energy majors, including BP and Shell, leading complex regional supply chains, commercial growth initiatives, and transformation programs.** As Regional Director, Global Supply Chain at BP, he supported a business generating over USD 1 billion in profit, overseeing 17 manufacturing plants and a workforce of more than 3,000 employees across Asia Pacific and the Middle East.

Currently Managing Director of EMvolution Pte Ltd, Eugene advises organizations on supply chain strategy, operational excellence, market expansion, and business transformation. He also serves as **Program Director for Supply Chain and Procurement at The Conference Board, advising senior executives on supply chain resilience and strategic priorities.** A respected industry expert, he is a frequent international speaker on energy transition, sustainability, supply chain disruption, and the future of work.

YOUR FACULTY DIRECTOR



Prof. Prashanth Shanmugan

Faculty Director for Europe and Africa

Prof. Prashanth Shanmugan is an internationally recognized geostrategist, business risk advisor, and strategic foresight specialist with over 20 years of experience spanning energy, geopolitics, supply chain resilience, and international business. A **former member of the Royal Dutch Shell Global Scenarios Team**, he specialized in **long-range scenario planning, geopolitical risk analysis, and energy supply chain strategy**, advising on the complex forces shaping global energy markets.

He currently serves as **President of the Australian Council on Foreign Relations, Ambassador for the New Energy Business School (The Netherlands), Professor of Practice in Leadership at Nichols College (USA), and Lecturer at the University of St. Gallen (Switzerland)**, where he teaches Corporate Diplomacy and is based at the Competence Centre for Mastering the Unknown.

Throughout his career, Prashanth has **advised energy companies, utilities, trading houses, maritime organizations, and government agencies around the world on energy security, supply chain disruption, and critical infrastructure resilience**. His distinctive background combines Shell's renowned scenario planning methodology and with military strategic logistics experience, enabling organizations to anticipate uncertainty and navigate complex geopolitical and economic environments. A recipient of **the Centenary Medal, Human Rights Youth Medal, and Australian Humanitarian Award**, Prashanth brings a multidisciplinary perspective that bridges energy markets, geopolitical developments, strategic foresight and operational resilience.

OUR PARTICIPANTS

Over 70% of FORTUNE 500 Companies Have Attended Our Accredited Programs Before

Goldman Sachs

SAMSUNG

ExxonMobil

BURBERRY

citi

IKEA

VOLVO

HYUNDAI

Pfizer

Life is our life's work

Nestle

PROGRAM AGENDA



MODULE 1: GLOBAL ENERGY SUPPLY CHAIN ARCHITECTURE AND STRUCTURAL VULNERABILITIES

- Full Energy Supply Chain Lifecycle: Upstream Production, Transportation, Processing, Storage, Trading, Distribution and End-use
- Energy Supply Chains Across Oil, Gas, LNG, Power, Renewables, Hydrogen and Critical Minerals
- Structural Dependency Versus Genuine Diversification
- Global Chokepoints: Strait of Hormuz, Bab el-Mandeb, Suez Canal, Panama Canal, Malacca Strait and Major Pipeline Corridors
- How Disruptions Transmit into Fuel Prices, Electricity Prices, Industrial Costs and National Energy Security

MODULE 2: GEOPOLITICAL RISK AND ENERGY SECURITY

- Energy as Economic Statecraft: Sanctions, Export Controls, Price Caps, Supply Restrictions and Resource Nationalism
- Middle East Conflict Risk, LNG Disruption and Shipping Route Exposure

- Russia-Ukraine Conflict and its Impact on Global Gas, Oil, Power and Infrastructure Security
- US-China Competition in Critical Minerals, Clean Energy Technologies and Strategic Supply Chains
- Hybrid Threats: Sabotage, Cyberattacks, Drone Incursions, Pipeline Disruption and Subsea Cable Damage

MODULE 3: SUPPLIER RISK MANAGEMENT AND ENERGY PROCUREMENT STRATEGY

- Supplier Due Diligence: Financial, Operational, ESG, Reputational, Sanctions and Delivery Risk
- Tier 1, Tier 2 and Upstream Supplier Mapping
- Multi-source Procurement Strategy and Supplier Concentration Limits
- Long-term Contracts Versus Spot Market Exposure
- Strategic Stockpiling, Reserve Planning and Inventory Buffers
- Procurement Governance Across Finance, Risk, Legal, Operations and the Board

PROGRAM AGENDA



MODULE 4: INFRASTRUCTURE, LOGISTICS AND ROUTE VULNERABILITY MANAGEMENT

- Critical Energy Infrastructure: LNG Terminals, Ports, Pipelines, Storage, Refineries, Grids, Interconnectors and Transmission Networks
- Route Risk Assessment for LNG, Crude Oil, Refined Products, Coal and Critical Minerals
- Infrastructure Redundancy, Alternative Routing and Emergency Logistics Planning
- Floating Storage, Regasification Units, Mobile Generation and Backup Infrastructure
- Cascading Failures Across Fuel Supply, Power Systems, Industrial Production and Transport

MODULE 5: ENERGY MARKET RISK, PRICE VOLATILITY AND SUPPLY SHOCK ANALYSIS

- Energy Market Fundamentals: Oil, Gas, LNG, Power, Coal, Carbon and Renewable Certificates
- Spot, Day-ahead, Intraday, Forward and Futures Markets
- Price Formation Under Supply Stress and Demand Shocks

- Liquidity Risk, Basis Risk and Bid-ask Spread Widening During Crises
- Using Market Signals to Detect Emerging Supply Disruption
- Risk Metrics: Value-at-Risk, Expected Shortfall, Stress Testing and Scenario-based Loss Analysis

MODULE 6: POWER PURCHASE AGREEMENTS AND RENEWABLE ENERGY PROCUREMENT RISK

- PPA Structures: Corporate, Utility, Virtual, Physical, Sleeved, Hybrid and Multi-buyer PPAs
- Pay-as-produced, Baseload, Shaped, Firm and Indexed Structures
- Pricing Mechanisms: Fixed Prices, Indexation, Floors, Collars and Escalators
- Shape Risk, Profile Risk, Balancing Risk, Curtailment and Capture-price Risk
- Credit Support, Change-in-law Provisions, Force Majeure and Termination Rights
- Evaluating PPAs Under Multiple Market and Regulatory Scenarios

MODULE 7: LNG, FUEL SUPPLY CONTRACTS AND FORCE MAJEURE MANAGEMENT

PROGRAM AGENDA



- LNG Sale and Purchase Agreements and Fuel Supply Contract Anatomy
- Pricing Models: Hub-linked, Oil-linked, Hybrid and Fixed-price Arrangements
- Take-or-pay, Minimum Annual Quantity, Volume Flexibility and Destination Flexibility
- Force Majeure Clauses: Notice, Mitigation, Allocation, Suspension and Termination
- Cargo Diversion Economics and Emergency Procurement Options
- Contract Portfolio Strategy: Long-term, Medium-term and Spot Supply Balance

MODULE 8: HEDGING, FINANCIAL RISK CONTROLS AND DECISION GOVERNANCE

- Hedging Objectives: Budget Certainty, Margin Protection, Cash-flow Stability and Compliance
- Instruments: Futures, Options, Swaps, Collars, Swaptions and Structured Products
- Cross-commodity Hedging: Spark Spreads, Dark Spreads, Clean Spreads and Fuel Switching Exposure
- FX Risk in Cross-border Energy Procurement

- Hedge Accounting, Effectiveness Testing and Reporting Discipline
- Hedging Policy Design: Limits, Governance, Escalation, Approvals and Board Reporting
- Common Failures: Over-hedging, Under-hedging, Basis Mismatches and Counterparty Concentration

MODULE 9: REGULATORY, SANCTIONS AND COMPLIANCE RISK IN GLOBAL ENERGY SUPPLY CHAINS

- Global Sanctions Exposure Affecting Oil, Gas, LNG, Shipping, Trading and Financing
- Export Controls, Price Caps, Restricted Counterparties and Secondary Sanctions Risk
- Energy Trading Compliance, Market Conduct and Transaction Reporting Principles
- Carbon Pricing, Emissions Reporting, Methane Rules and Border Carbon Measures
- Critical Infrastructure Resilience, Cybersecurity Regulation and Operational Continuity Obligations
- Building a Global Compliance Map Across Jurisdictions, Counterparties and Transactions

PROGRAM AGENDA



MODULE 10: CYBER-PHYSICAL RESILIENCE AND BUSINESS CONTINUITY FOR ENERGY OPERATIONS

- IT/OT Convergence and the Vulnerability Of Grids, Pipelines, Terminals, Ports and Trading Systems
- Cyberattacks, Ransomware, Operational Technology Compromise and Data Integrity Failures
- Physical Security Threats: Sabotage, Drone Attacks, Asset Seizure, Port Disruption and Cable Damage
- Business Continuity Planning for Energy Supply Interruption
- Disaster Recovery, Alternate Operating Modes and Minimum Critical Function Planning
- Insurance Integration: Cyber, War Risk, Political Violence, Business Interruption and Cargo Coverage
- Tabletop Exercises and Red-team Testing for Energy Disruption Events

MODULE 11: ENERGY TRANSITION SUPPLY CHAIN RISK AND CRITICAL MATERIALS STRATEGY

- Transition Portfolio Risk Across Gas, Renewables, Nuclear, Hydrogen, Batteries, CCUS and Distributed Energy

- Critical Minerals Exposure: Lithium, Cobalt, Nickel, Copper, Rare Earths, Graphite and Polysilicon
- Battery, Solar, Wind, Hydrogen and Grid Equipment Supply Chain Dependencies
- Recycling, Circular Economy and Alternative Sourcing as Resilience Strategies
- Stranded Asset Risk and Early Retirement of Legacy Infrastructure
- Portfolio Optimization Under Uncertain Demand, Policy, Technology and Price Scenarios

MODULE 12: CRISIS SIMULATION, SCENARIO PLANNING AND ENERGY RISK LEADERSHIP

- Building Organization-specific Disruption Scenarios
- Scenario Types: Geopolitical Conflict, LNG Force Majeure, Port Closure, Cyberattack, Supplier Collapse, Extreme Weather and Price Shock
- Crisis Response Governance: Command Structure, Escalation, Decision Rights and Communications
- Stakeholder Management: Board, Regulators, Suppliers, Customers, Lenders, Insurers and Media

PROGRAM AGENDA



- Crisis Communication Protocols and Executive Briefing Templates
- Boardroom Simulation: Multi-layer Energy Supply Disruption With Price, Contract, Logistics and Compliance Consequences
- Certification Assessment and Action Planning

EXAMINATION

YOUR CHARTER DESIGNATION



Chartered Institute of Professional Certifications' programs are unique as they provide you with professional charter designations and marks that can be used across your lifetime once you have completed our programs.

On successfully completing this program and passing the certification examination, you will be awarded the **Certified Energy Supply Chain Disruption and Risk Management Leader (CESC™)** designation, which you can add to your resume, CV, and professional credentials. This industry-recognized certification carries lifelong validity and demonstrates your commitment to excellence in energy supply chain risk management and organizational resilience.

Globally recognized, the **CESC™** designation validates your expertise in managing energy supply chain disruptions, assessing geopolitical and market risks, and strengthening operational resilience across the energy value chain. It demonstrates your capability to develop risk mitigation strategies, enhance supply security, and lead effective responses to complex disruption events. Developed by the **Chartered Institute of Professional Certifications**, the program is independently accredited by the **CPD Certification Service**, ensuring adherence to the highest standards of continuing professional development and professional education.

ABOUT US

49,525

Business Leaders Have
Attained Their Chartered
Certifications Since 2009

390

Certified and Fully
Accredited Programs

87%

Chartered Leaders Have
Reported Career Promotions
and Enhancements

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CONTACT US TODAY

We Thank You for Your Ongoing Support
of Our Programs

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