CONCEPT

Renewable Energy Certificates and Clean Power Procurement: Scope 2, Hourly Matching and Claims

3 – 7 October 2027
Riyadh - KAFD district five-star



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Introduction:

Renewable energy certificates let an organisation claim renewable electricity, yet many buyers retire certificates that fail quality criteria, double count attributes or support claims that auditors and customers later reject as greenwashing. This Core Concept course equips energy, procurement and sustainability managers to source clean power credibly: how attribute certificates are issued, tracked and cancelled in registries, how market-based Scope 2 figures are calculated, how unbundled certificates, green tariffs, on-site generation and offtake contracts compare, and how hourly matching changes the picture. Participants produce a Renewable Electricity Sourcing Strategy and Certificate Retirement Plan.

Course Objectives:

- Explain how energy attribute certificates are issued per megawatt-hour, tracked by serial number, transferred between registry accounts and cancelled against a consumption claim
- Calculate location-based and market-based Scope 2 figures from grid factors, supplier-specific factors, residual mix and retired certificates
- Screen certificate offers against contractual instrument quality criteria covering vintage, market boundary, technology, plant age and exclusive claim
- Compare unbundled certificates, green tariffs, on-site generation and offtake agreements on cost, additionality, risk and claim strength
- Evaluate hourly matching, granular certificates and residual exposure for sites with round-the-clock electricity demand
- Design a renewable electricity sourcing strategy with a certificate retirement plan, supplier specification and defensible public claim wording

Target Audience:

- Managers responsible for buying electricity and energy attributes for multi-site organisations
- Procurement managers responsible for tendering and contracting green electricity and certificate supply
- Sustainability managers responsible for Scope 2 figures, renewable targets and public environmental claims
- Facility and energy managers responsible for on-site solar and site-level consumption data
- Finance managers responsible for approving energy budgets and long-term sourcing commitments
- Communications and reporting managers responsible for vetting renewable electricity statements

Course Outline:

Day 1: Energy Attribute Certificates, Registries and the Renewable Claim

- One Certificate per Megawatt-Hour: Attributes Separated from Physical Electricity
- Certificate Data Fields: Serial Number, Plant, Technology, Commissioning Date and Vintage
- Registry Account Lifecycle: Issuance, Transfer, Cancellation and Expiry Rules
- Supplier Disclosure, Residual Mix and the Null Power Problem
- Baseline Review of a Company Electricity Consumption and Certificate Holdings Sheet

Day 2: Scope 2 Dual Reporting and Contractual Instrument Quality Criteria

- Location-Based Method Using Grid Average Emission Factors
- Market-Based Method Hierarchy: Certificates, Supplier-Specific Factors and Residual Mix
- Quality Criteria Checklist: Attribute Conveyance, Exclusive Claim, Vintage Window and Market Boundary
- Double Counting Scenarios Across Utility Disclosure, Exported Certificates and Self-Generation
- Scope 2 Dual Reporting Worksheet with Consumption, Factors and Retired Volumes

Day 3: Clean Power Sourcing Routes: Certificates, Tariffs, On-Site Solar and Offtake

- Unbundled Certificate Purchase: Spot Lots, Forward Strips and Delivery Schedules
- Green Tariff and Utility Renewable Product Due Diligence Questions
- On-Site Solar and Behind-the-Meter Generation: Attribute Ownership and Self-Consumption Metering
- Physical and Virtual Offtake Agreements Overview: Bundled Attributes and Settlement Logic
- Sourcing Route Scoring Matrix: Cost per Megawatt-Hour, Additionality, Tenor and Claim Strength

Day 4: Additionality, Hourly Matching, Certificate Pricing and Greenwashing Risk

- Additionality Debate: Plant Age Limits, New-Build Linkage and Impact Metrics
- Hourly Matching and Granular Certificates: Load Profile Versus Generation Profile Gap Analysis
- Certificate Price Drivers: Technology, Vintage, Market Liquidity and Label Premiums
- Certificate Supply Agreement Terms: Volume Tolerance, Delivery Failure, Replacement and Registry Evidence
- Claim Substantiation File: Retirement Statements, Percentage Renewable Wording and Misleading Claim Red Flags

Day 5: Case Study: Renewable Electricity Sourcing Strategy for a Multi-Site Company

- Case Company Data Pack: Site Loads, Hourly Profiles, Tariffs and Renewable Target
- Sourcing Mix Build Combining Rooftop Solar, Green Tariff, Offtake Share and Certificate Top-Up
- Market-Based Scope 2 Projection and Cost Trajectory for the Chosen Mix
- Certificate Retirement Calendar, Supplier Specification and Internal Control Checklist
- Renewable Electricity Sourcing Strategy Presentation and Peer Challenge

Skills You Will Gain:

- Registry Account Management
- Market-Based Scope 2 Calculation
- Certificate Quality Screening
- Green Tariff Due Diligence
- Sourcing Route Evaluation
- Hourly Load Matching Analysis
- Certificate Supply Contracting
- Environmental Claim Substantiation

Why Attend This Course:

- Return with a Renewable Electricity Sourcing Strategy and Certificate Retirement Plan built on a multi-site case and tested by peers
- Reject certificate offers and utility products that would not survive an auditor's or customer's scrutiny
- Speak the same language as energy suppliers, registry operators and assurance providers when negotiating green electricity
- Compare sourcing experience with buyers from manufacturing, real estate, data centres, retail and public services

Conclusion:

A renewable electricity claim is only as strong as the certificate evidence and accounting behind it. The course moves from certificate data, registries and residual mix through Scope 2 dual reporting and quality criteria, to sourcing routes from unbundled certificates and green tariffs to on-site solar and offtake agreements, then additionality, hourly matching, pricing, supply terms and claim substantiation. The final day applies these methods to a multi-site case company and produces a Renewable Electricity Sourcing Strategy and Certificate Retirement Plan ready for management approval.