

COURSE OVERVIEW CM0183
Engineering Procurement & Construction (EPC)
Contracts for Energy Industry

Course Title

Engineering Procurement & Construction (EPC) Contracts for Energy Industry

Course Date/Venue

September 08-12, 2025/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Course Reference

CM0183

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

Course Description



This practical and highly-interactive course includes real-life case studies where participants will be engaged in a series of interactive small groups and class workshops.



This course is designed to provide participants with a detailed and up-to-date overview of Engineering Procurement & Construction (EPC) Contracts for Energy Industry. It covers the EPC contract structure and key elements and phases of an EPC project lifecycle; the EPC contract models in energy projects and the roles and responsibilities of EPC parties; the pre-award phase, tendering strategy and contract negotiation and finalization; the engineering deliverables and review cycles, procurement lifecycle in EPC projects and vendor and supplier management; and the contractual obligations in procurement, quality assurance and compliance in engineering/procurement and procurement risk management.



Further, the course will also discuss the construction planning and mobilization, scheduling and project controls and HSE and regulatory compliance in EPC projects; the subcontractor selection and contracts, coordination and daily work permits, site meetings and performance monitoring and delay and dispute management; the construction risk and insurance as well as site documentation and quality control; the change events, variation orders, time extensions and cost impacts and documentation protocols; and the types of delays, delay analysis methods, concurrent delays and EOT approval process.



During this interactive course, participants will learn the cost control and financial management through budgeting and cost forecasting, payment milestones and invoicing, cash flow and working capital and claims for escalation and reimbursement; the dispute avoidance and resolution and contract close-out and handovers; the FIDIC and other standard EPC forms; the risk allocation in EPC projects, performance bonds, guarantees and securities; the technology integration in EPC projects; and the low-carbon engineering choices, sustainable procurement practices, reporting frameworks and energy transition projects.

Course Objectives

Upon the successful completion of this course, each participant will be able to:-

- Apply and gain an in-depth knowledge on engineering procurement and construction (EPC) contracts for energy industry
- Discuss EPC contract structure and key elements and phases of an EPC project lifecycle
- Illustrate EPC contract models in energy projects and explain the roles and responsibilities of EPC parties
- Apply pre-award phase and tendering strategy and contract negotiation and finalization
- Carryout engineering deliverables and review cycles, procurement lifecycle in EPC projects and vendor and supplier management
- Apply contractual obligations in procurement, quality assurance and compliance in engineering/procurement and procurement risk management
- Employ construction planning and mobilization, scheduling and project controls and HSE and regulatory compliance in EPC projects
- Carryout subcontractor selection and contracts, coordination and daily work permits, site meetings and performance monitoring and delay and dispute management
- Apply construction risk and insurance as well as site documentation and quality control
- Identify change events, variation orders, time extensions and cost impacts and documentation protocols
- Recognize the types of delays, delay analysis methods, concurrent delays and EOT approval process
- Implement cost control and financial management through budgeting and cost forecasting, payment milestones and invoicing, cash flow and working capital and claims for escalation and reimbursement
- Apply dispute avoidance and resolution and contract close-out and handovers and review FIDIC and other standard EPC forms
- Manage risk allocation in EPC projects, performance bonds, guarantees and securities and technology integration in EPC projects
- Discuss low-carbon engineering choices, sustainable procurement practices, reporting frameworks and energy transition projects

Exclusive Smart Training Kit - H-STK®



Participants of this course will receive the exclusive “Haward Smart Training Kit” (H-STK®). The H-STK® consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.

Who Should Attend

This course provides an overview of all significant aspects and considerations of engineering procurement and construction (EPC) contracts for energy industry for project managers and engineers, procurement and contract managers, legal and commercial advisors, construction managers and site engineers, finance and risk professionals, developers and owners, consultants and advisors, regulatory and compliance officers, project management consultant, operations and maintenance professionals and those who involved in planning, executing, managing, or overseeing EPC projects in the energy sector.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures
- 20% Practical Workshops & Work Presentations
- 30% Hands-on Practical Exercises & Case Studies
- 20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Course Fee

US\$ 5,500 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning and afternoon of each day.

Accommodation


Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course completed a minimum of 80% of the total tuition hours.

Certificate Accreditations

Haward's Certificates are accredited by the following international accreditation organizations:

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British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. Haward's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

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The International Accreditors for Continuing Education and Training (IACET - USA)

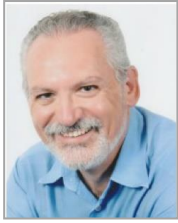
Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:



Mr. Steve Magalios, CEng, PGDip (on-going), MSc, BSc, **Senior Management Consultant** with over **30 years** of extensive experience in the areas of **Contract Management, EPC Contract Models, Contract Negotiation, Procurement Risk Management, Contract Risk Identification & Mitigation, Project Scheduling & Cost Control, Project Planning, Scheduling & Cost Control Professional, Effective Quality Management System (QMS), QMS Framework, Quality Assurance Standards, QA Audit Process & Techniques, Coaching**

Skills, Coaching Plan, Mentoring Techniques, Communication & Listening Techniques, Office Administration, Office Management, Invoice Management, Administration Process, Administration Work Procedures, Facilitation & Leadership Skills, Human Resource Development, Psychometric Testing, Career Development & Competence, Succession Planning, Self-Development & Empowerment, Personal Learning Needs Identification, Critical Success Factors (CSFs), Key Performance Indicators (KPIs), Productivity Creativity & Thinking Modes, Human Resource Scorecard Management, Career Laddering, Fast-Track Career Progression Application, Knowledge Management, Customer Management, Leadership Skills, Presentation Skills, Negotiation Skills, Communication Skills, Emotional Intelligence, Performance Management, Quality Management, Commercial Strategy, Project Management, Risk Management, Leadership & Business Management, Human Resource Management, Planning, Budgeting & Cost Control, Business Development, Innovation, Organization Management & Business Consulting, Stakeholder & Supplier Evaluation, Data Collection & Information Gathering, Value & Supply Chain Management, Intellectual Property & Innovation Assessments, Logistics & Supply Chain Management, Budgeting & Cost Control and Marketing Management. Currently, he is the **Chartered Professional Surveyor Engineer & Urban-Regional Planner** wherein he is deeply involved in providing exact data, measurements and determining properly boundaries. He is also responsible in preparing and maintaining sketches, maps, reports and legal description of surveys.

During his career, Mr. Magalios has gained his expertise and thorough practical experience through challenging positions such as a **Project Site Construction Manager, Construction Site Manager, Project Manager, Deputy PMS Manager, Head of the Public Project Inspection Field Team, Technical Consultant, Senior Consultant, Consultant/Lecturer, Construction Team Leader, Lead Pipeline Engineer, Project Construction Lead Supervising Engineer, Lead Site Engineer, Senior Site Engineer Lead Engineer, Senior Site Engineer, R.O.W. Coordinator, Site Representative, Supervision Head and Contractor** for international Companies such as the Penspen International Limited, Eptista Servicios de Ingenieria S.I., J/V ILF Pantec TH. Papaioannou & Co. – Emenergy Engineering, J/V Karaylannis S.A. – Intracom Constructions S.A., Ergaz Ltd., Alkyonis 7, Palaeo Faliro, Piraeus, Elpet Valkaniki S.A., Asprofos S.A., J/V Depa S.A. just to name a few.

Mr. Magalios is a **Registered Chartered Engineer** and has **Master and Bachelor** degrees in **Surveying Engineering** from the **University of New Brunswick, Canada** and the **National Technical University of Athens, Greece**, respectively. Further, he is currently enrolled for **Post-graduate** in **Quality Assurance** from the **Hellenic Open University, Greece**. He has further obtained a **Level 4B Certificates** in **Project Management** from the **National & Kapodistrian University of Athens, Greece** and **Environmental Auditing** from the **Environmental Auditors Registration Association (EARA)**. Moreover, he is a **Certified Instructor/Trainer**, a **Chartered Engineer** of **Technical Chamber of Greece** and a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management (ILM)**. He has delivered numerous trainings, workshops, seminars, courses and conferences internationally.

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the workshop for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1: Monday, 08th of September 2025

0730 – 0800	<i>Registration & Coffee</i>
0800 – 0815	<i>Welcome & Introduction</i>
0815 – 0830	<i>PRE-TEST</i>
0830 – 0930	<i>EPC Contract Structure & Key Elements</i> <i>Definition and Scope of EPC • Turnkey versus EPC versus EPCM • Fixed-Price and Lump-Sum Elements • Interface and Single-Point Responsibility</i>
0930 – 0945	<i>Break</i>
0945 – 1030	<i>Phases of an EPC Project Lifecycle</i> <i>Feasibility and Concept Stage • Front-End Engineering Design (FEED) • Detailed Engineering and Procurement • Construction, Commissioning and Handover</i>
1030 – 1130	<i>EPC Contract Models in Energy Projects</i> <i>Onshore versus Offshore Contracts • BOT, BOOT Models • Consortium and Joint Venture Arrangements • Role of IPPs in Renewable Energy EPCs</i>
1130 – 1215	<i>Roles & Responsibilities of EPC Parties</i> <i>Owner/Client Roles and Expectations • Contractor Obligations • Subcontractors and Vendors • Project Management Consultant (PMC) Role</i>
1215 – 1230	<i>Break</i>
1230 – 1330	<i>Pre-Award Phase & Tendering Strategy</i> <i>RFP Development and Bid Evaluation • Technical and Commercial Clarifications • Risk Allocation During Tendering • Pre-Bid Meetings and Site Visits</i>
1330 – 1420	<i>Contract Negotiation & Finalization</i> <i>Term Sheet versus Contract • Liquidated Damages Clauses • Change Management Terms • Force Majeure and Termination Clauses</i>
1420 – 1430	<i>Recap</i> <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today & Advise Them of the Topics to be Discussed Tomorrow</i>
1430	<i>Lunch & End of Day One</i>

Day 2: Tuesday, 09th of September 2025

0730 – 0830	<i>Engineering Deliverables & Review Cycles</i> <i>Design Packages and Approvals • Technical Interface Management • Value Engineering • 3D Modeling and Digital Twins</i>
0830 – 0930	<i>Procurement Lifecycle in EPC Projects</i> <i>Vendor Prequalification • RFQ and Bid Evaluations • Purchase Orders and Incoterms • Logistics and Expediting</i>
0930 – 0945	<i>Break</i>
0945 – 1100	<i>Vendor & Supplier Management</i> <i>Long-Lead Items Tracking • Criticality and Inspection Classification • FATs and Supplier Audits • Vendor Document Management</i>
1100 – 1215	<i>Contractual Obligations in Procurement</i> <i>Subcontractor Flow-Down Clauses • Warranties and Guarantees • Delivery Obligations and Delay Penalties • Claims Related to Procurement</i>



1215 – 1230	Break
1230 – 1330	Quality Assurance & Compliance in Engineering/Procurement QA/QC Planning and Documentation • ITPs and Hold Points • Certification Requirements (ASME, API, IEC, etc.) • Interface with Regulatory Authorities
1330 – 1420	Procurement Risk Management Currency and Price Volatility • Geopolitical and Supply Chain Risks • Insurance Requirements (Marine, Cargo, Transit) • Procurement-Related Claims and Remedies
1420 – 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today & Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Two

Day 3: Wednesday, 10th of September 2025

0730 – 0830	Construction Planning & Mobilization Mobilization Plans and Site Setup • Construction Methodologies • Labour, Plant, and Equipment Planning • Interface with Engineering and Procurement
0830 – 0930	Scheduling & Project Controls CPM Scheduling in Primavera/MS Project • Progress Measurement Techniques • Earned Value Analysis • Recovery and Mitigation Plans
0930 – 0945	Break
0945 – 1100	HSE & Regulatory Compliance in EPC Projects Safety Programs and Audits • Permit-to-Work Systems • Environmental Compliance • Site Emergency Response Planning
1100 – 1215	Subcontractor Management Subcontractor Selection and Contracts • Coordination and Daily Work Permits • Site Meetings and Performance Monitoring • Delay and Dispute Management
1215 – 1230	Break
1230 – 1330	Construction Risk & Insurance Construction All-Risk (CAR) Policies • Third-Party Liabilities • Delay in Start-Up (DSU) Insurance • Site-Specific Risk Registers
1330 – 1420	Site Documentation & Quality Control Daily Site Reports • Welding Inspection and NDT • Site Queries (SQs), NCRs and Punch Lists • As-Built Documentation
1420 – 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today & Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Three

Day 4: Thursday, 11th of September 2025

0730 – 0830	Contractual Change Management Identifying Change Events • Variation Orders • Time Extensions and Cost Impacts • Documentation Protocols
0830 – 0930	Delay Analysis & EOT Claims Types of Delays (Critical versus Non-Critical) • Delay Analysis Methods (AACE, SCL Protocols) • Concurrent Delays • EOT Approval Process
0930 – 0945	Break
0945 – 1100	Cost Control & Financial Management Budgeting and Cost Forecasting • Payment Milestones and Invoicing • Cash Flow and Working Capital • Claims for Escalation and Reimbursement





1100 – 1215	Dispute Avoidance & Resolution Escalation Protocols • Dispute Resolution Boards (DRBs) • Mediation, Arbitration, and Litigation • Case Studies of Major EPC Disputes
1215 – 1230	Break
1230 – 1330	Contract Close-Out & Handovers Completion and Takeover Procedures • Final Dossiers and O&M Manuals • Performance Testing and Warranties • Lessons Learned and Close-Out Reports
1330 – 1420	FIDIC & Other Standard EPC Forms FIDIC Silver Book Key Clauses • NEC and ICE Models • Customized Contracts in Energy Projects • Comparative Analysis of Contract Standards
1420 – 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today & Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Four

Day 5: Friday, 12th of September 2025

0730 – 0845	Risk Allocation in EPC Projects Risk-Sharing Mechanisms • Risk Registers and Contingency Planning • Transfer versus Retention of Risk • Contractual Tools to Mitigate Risk
0845 – 1000	Performance Bonds, Guarantees & Securities Bank Guarantees (Advance Payment, Performance) • Retention Bonds • Parent Company Guarantees • Surety and Insurance-Backed Securities
1000 – 1015	Break
1015 – 1130	Technology Integration in EPC Projects Digital Project Management Tools • BIM, Drone, and AI Applications • Document Control Systems • Digital Twins for O&M Readiness
1130 – 1230	Sustainability & ESG in EPC Projects Low-Carbon Engineering Choices • Sustainable Procurement Practices • Reporting Frameworks (GRI, SASB, etc.) • Energy Transition Projects (Hydrogen, Solar, CCS)
1230 – 1245	Break
1245 – 1315	Case Studies of EPC Projects in the Energy Sector LNG Terminals and Power Plants • Offshore Wind Farms • Combined Cycle Plants • Refinery Upgrades and Shutdowns
1315 – 1345	Workshop: Contract Risk Identification & Mitigation Risk-Based Contract Review Simulation • Stakeholder Mapping and Interface Risks • Drafting Key Clauses for Mitigation • Presentation of Group Solutions
1345 – 1400	Course Conclusion Using this Course Overview, the Instructor(s) will Brief Participants about Topics that were Covered During the Course
1400 – 1415	POST-TEST
1415 – 1430	Presentation of Course Certificates
1430	Lunch & End of Course

Practical Sessions

This practical and highly-interactive course includes real-life case studies & exercises:-



Course Coordinator

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