COURSE OVERVIEW HE0549
Strategy & Action Plan for Transition Toward Carbon Neutral

Course Title
Strategy & Action Plan for Transition Toward Carbon Neutral

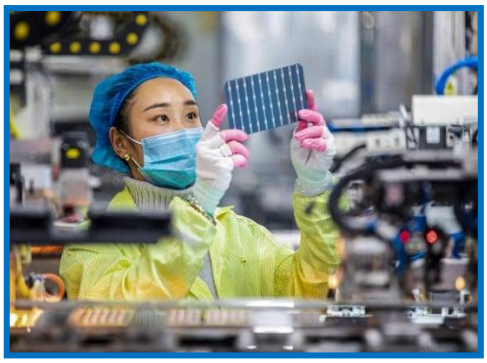
Course Reference
HE0549

Course Duration/Credits
Five days/3.0 CEUs/30 PDHs

Course Date/Venue

Session(s)	Date	Venue
1	May 12-16, 2025	Glasshouse Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE
2	July 27-31, 2025	Tamra Meeting Room, Al Bandar Rotana Creek, Dubai, UAE
3	October 27-31, 2025	Glasshouse Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE
4	December 07-11, 2025	Tamra Meeting Room, Al Bandar Rotana Creek, Dubai, UAE

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 Strategy & Action Plan for Transition Toward Carbon Neutral. It covers the carbon neutrality, net-zero, carbon footprint assessment and policy and regulatory frameworks for decarbonization; the low-carbon technologies and innovations, corporate sustainability strategies and carbon reduction targets; the stakeholder engagement for a carbon-neutral transition, energy efficiency and operational optimization; and the carbon capture, utilization, and storage (CCUS) as well as hydrogen as a key decarbonization solution.

Further, the course will also discuss the renewable energy integration in petroleum operations; the circular economy and waste management strategies, sustainable transportation and logistics and carbon offsetting and compensation; the role of nature-based solutions in decarbonization, emission trading systems (ETS) and carbon markets; the green finance and investment in decarbonization; the risk management and business resilience in a low-carbon economy; and the corporate social responsibility (CSR) and decarbonization.

During this interactive course, participants will learn the role of digitalization in carbon management; the AI-driven carbon reduction strategies, smart grid and decarbonized energy infrastructure; the advanced materials and nanotechnology for emission reduction, blockchain for carbon accounting and transparency and future trends in low-carbon technologies; the organizational decarbonization strategy, decarbonization action plan and change management for carbon neutral transition; and the performance monitoring and continuous improvement.

Course Objectives

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

- Apply and gain an in-depth knowledge on strategy and action plan for transition toward carbon neutral
- Discuss carbon neutrality, net-zero, carbon footprint assessment and policy and regulatory frameworks for decarbonization
- Recognize low-carbon technologies and innovations and apply corporate sustainability strategies and carbon reduction targets
- Carryout stakeholder engagement for a carbon-neutral transition, energy efficiency and operational optimization
- Discuss carbon capture, utilization, and storage (CCUS) as well as hydrogen as a key decarbonization solution and renewable energy integration in petroleum operations
- Apply circular economy and waste management strategies, sustainable transportation and logistics and carbon offsetting and compensation
- Define the role of nature-based solutions in decarbonization and discuss emission trading systems (ETS) and carbon markets
- Explain green finance and investment in decarbonization and apply risk management and business resilience in a low-carbon economy
- Carryout corporate social responsibility (CSR) and decarbonization and discuss the role of digitalization in carbon management
- Apply AI-driven carbon reduction strategies and describe smart grid and decarbonized energy infrastructure
- Determine advanced materials and nanotechnology for emission reduction, blockchain for carbon accounting and transparency and future trends in low-carbon technologies
- Build an organizational decarbonization strategy, create a decarbonization action plan and apply change management for carbon neutral transition
- Employ performance monitoring and continuous improvement

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 strategy and action plan for transition toward carbon neutral for executive leadership and decision-makers, environmental and sustainability experts, operations and supply chain teams, research and development, finance and budgeting teams, engineers, corporate social responsibility (CSR) managers, energy managers, facilities managers, supply chain managers, environmental managers and specialists, sustainability officers and compliance officers, external stakeholders, marketing and communications teams, legal and risk management teams.

Course Certificate(s)

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

Certificate Accreditations

Certificates are accredited by the following international accreditation organizations: -

- British Accreditation Council (BAC)

  Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. 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.

- 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. John Taljard is an **International Health**, **Safety & Environment** (**HSE**) **Expert** within **Oil**, **Gas** and **Petrochemical** industries. His expertise includes **Accident/Incident Investigation & Risk Management**, **Risk Assessment** within Production Operation, **Hazard Identification**, **Quantified Risk Assessment**, **Process Hazard Analysis** (**PHA**), **Construction Safety** (**STOP**), **Process Safety Management**, **HAZOP Studies & Leadership**, **FMEA**, Waste Management, Industrial Effluents, **Hazardous Material**, Chemical Handling, **Firefighting**, Emergency Response Services, **HAZCOM**, **HAZWOPER** and **HAZMAT** with over **30 years** of practical experience in the **process** industry. His wide experience also includes **Environmental Management** (**ISO 14001**), **Safety Management** (**OHSAS 18001**), **Quality Management** (**ISO 9001**). He is the **Founder** of **ISTEC**, an international health & safety management and consultancy company where he is greatly involved in the development and implementation of **SHEQ standards & procedures**, **HAZOP Studies**, **HAZOP Leadership**, **FMEA**, **PHA**, operational safety guidelines, inspections & auditing techniques.

While Mr. Taljard has been very active in the process industry for almost three decades, he has likewise headed Consultancy projects for major **petrochemical**, aviation, engineering & construction, mining & chemical industries. In all his projects, he utilizes a systems approach which includes **risk management**, **process safety**, health & environmental management, human behaviour and quality management. Furthermore, he has come to share his expertise through the **numerous international trainings** he has held on **PHA**, **HAZOP**, **Risk Assessment**, Handling **Hazardous Materials** & Chemicals, Petroleum Products Handling & Transportation, **Fire Fighting & Fire Rescue**, **Safety Auditing**, **Hazard Identification** & Site Inspection and **Accident Investigation** for several significant clientele among these are **ARAMCO**, **SABIC**, **ZADCO**, **ORPC**, **KOTC**, and **AADC**. Moreover, he completed various assignments as a consultant, trainer, facilitator, auditor & designer and conducted numerous licensed international Safety, Technology and Auditing Awareness & Implementing training courses including **IMS**, **ISO 9001**, **ISO 14001**, **ISO 27001**, **ISO 17799**, **OHSAS 18001** audits & assessments. With his accomplishments and achievements, he had been a **Safety Superintendent**, **Senior Safety Official** and **Senior Process Controller** for several international petrochemical companies.

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.

Accommodation

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

Course Fee

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

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

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0930	***Understanding Carbon Neutrality in the Petroleum Sector*** *Definition of Carbon Neutrality & Net-Zero • Global Commitments & Climate Goals (Paris Agreement, COP) • Challenges for the Petroleum Industry in Decarbonization*
0930 – 0945	*Break*
0945 – 1030	***Carbon Footprint Assessment*** *Identifying Major Emission Sources (Scope 1, 2, 3) • Calculating Carbon Intensity in Oil & Gas Operations • Benchmarking Against Industry Best Practices • Tools & Standards for Emission Measurement*
1030 – 1130	***Policy & Regulatory Frameworks for Decarbonization*** *International Climate Regulations & Compliance • Regional & National Policies • Environmental, Social & Governance (ESG) Considerations • Role of Carbon Pricing, Taxation & Cap-and-Trade*
1130 – 1230	***Low-Carbon Technologies & Innovations*** *Role of Renewable Energy in Petroleum Operations • Electrification of Oil & Gas Equipment • Carbon Capture, Utilization & Storage (CCUS) Technologies • Hydrogen as a Future Fuel*
1230 – 1245	*Break*
1245 – 1330	***Corporate Sustainability Strategies & Carbon Reduction Targets*** *Setting Science-Based Targets (SBTs) for Net-Zero • Integrating Carbon Reduction into Business Strategy • Current Sustainability Initiatives • Collaboration with Stakeholders for Carbon Neutrality*
1330 – 1420	***Stakeholder Engagement for a Carbon-Neutral Transition*** *Engaging Investors & Shareholders on Decarbonization • Collaboration with Governments & Policymakers • Building Partnerships with Research Institutes • Communicating Sustainability Goals to Employees & Customers*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day One*

Day 2

0730 – 0830	***Energy Efficiency & Operational Optimization*** *Reducing Flaring & Methane Emissions • Improving Process Efficiency in Refineries • Energy Management Systems (ISO 50001) • Digitalization & AI for Energy Optimization*
0830 – 0930	***Carbon Capture, Utilization & Storage (CCUS)*** *Principles & Technologies of CCUS • CCUS Applications in Company's Operations • Challenges & Cost Analysis of CCUS • Global CCUS Case Studies*
0930 – 0945	*Break*
0945 – 1100	***Hydrogen as a Key Decarbonization Solution*** *Green versus Blue versus Grey Hydrogen • Hydrogen Production & Storage • Hydrogen Infrastructure Development • Market Potential & Global Hydrogen Demand*
1100 – 1230	***Renewable Energy Integration in Petroleum Operations*** *Solar & Wind Energy Applications • Offshore Renewable Energy & Floating Solar Farms • Battery Storage for Energy Management • Hybrid Renewable Systems in Remote Oil Fields*
1230 – 1245	*Break*
1245 – 1330	***Circular Economy & Waste Management Strategies*** *Reducing Carbon Emissions Through Circular Economy • Waste-to-Energy Technologies • Recycling & Reusing Industrial Byproducts • Circular Economy Initiatives*
1330 – 1420	***Sustainable Transportation & Logistics*** *Electrification of Fleet & Heavy Equipment • Sustainable Aviation Fuel (SAF) & Biofuels • Reducing Carbon Footprint in Supply Chain • Adoption of Smart Logistics for Emission Reduction*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Two*

Day 3

0730 – 0830	***Understanding Carbon Offsetting & Compensation*** *Principles of Carbon Offsetting • Types of Carbon Credits & Trading Mechanisms • Potential Carbon Offset Strategies • Criticism & Challenges of Carbon Offsetting*
0830 – 0930	***Role of Nature-Based Solutions in Decarbonization*** *Afforestation, Reforestation & Blue Carbon Projects • Soil Carbon Sequestration & Biodiversity Conservation • Carbon Farming & Sustainable Land Management • Case Studies on Nature-Based Solutions in Oil & Gas*
0930 – 0945	*Break*
0945 – 1100	***Emission Trading Systems (ETS) & Carbon Markets*** *Basics of Carbon Markets & Cap-and-Trade • Position in Emission Trading Schemes • Voluntary versus Compliance Carbon Markets • Lessons from EU ETS & Other Global Systems*
1100 – 1230	***Green Finance & Investment in Decarbonization*** *ESG Investments & Green Bonds • Attracting Sustainable Financing for Net-Zero Projects • Role of Financial Institutions in Decarbonization • Evaluating ROI for Carbon Reduction Investments*

1230 – 1245	*Break*
1245 – 1330	***Risk Management & Business Resilience in a Low-Carbon Economy*** *Identifying Climate-Related Risks • Scenario Planning for Carbon Pricing & Regulations • Integrating Climate Risk into Corporate Strategy • Business Resilience & Adaptation Strategies*
1330 – 1420	***Corporate Social Responsibility (CSR) & Decarbonization*** *Linking CSR with Sustainability Goals • Employee Engagement in Green Initiatives • Community Outreach for Carbon Neutrality Awareness • Reporting CSR Achievements in Sustainability Reports*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Three*

Day 4

0730 – 0830	***Role of Digitalization in Carbon Management*** *Digital Twins for Optimizing Carbon Footprint • IoT & AI in Emission Monitoring • Blockchain for Carbon Trading & Transparency • Predictive Analytics for Energy Management*
0830 – 0930	***AI-Driven Carbon Reduction Strategies*** *AI for Process Optimization in Oil & Gas • Machine Learning for Energy Efficiency • AI-Based Carbon Footprint Forecasting • Digital Tools for Real-Time Emission Tracking*
0930 – 0945	*Break*
0945 – 1100	***Smart Grid & Decarbonized Energy Infrastructure*** *Microgrids for Remote Operations • Grid Integration of Renewable Energy • AI-Based Demand Response Systems • Case Studies on Smart Grid in Petroleum Industry*
1100 – 1230	***Advanced Materials & Nanotechnology for Emission Reduction*** *Nanomaterials for Carbon Capture • Low-Emission Catalysts for Refining Processes • Hydrogen Storage Using Advanced Materials • Innovations in CO2 Utilization Technologies*
1230 – 1245	*Break*
1245 – 1330	***Blockchain for Carbon Accounting & Transparency*** *Role of Blockchain in Carbon Credit Trading • Smart Contracts for Decarbonization Initiatives • Ensuring Transparency in ESG Reporting • Blockchain Use Cases*
1330 – 1420	***Future Trends in Low-Carbon Technologies*** *Emerging Carbon Removal Technologies • Next-Generation Renewable Energy Solutions • AI & Automation in Carbon Management • Roadmap for Future Innovation*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Four*

Day 5

0730 – 0930	***Building an Organizational Decarbonization Strategy*** *Leadership Commitment to Carbon Neutrality • Defining Net-Zero Timeline & Goals • Identifying Key Performance Indicators (KPIs) • Aligning Sustainability with Business Growth*
0930 – 0945	*Break*
0945 – 1100	***Creating a Decarbonization Action Plan*** *Phased Approach to Emission Reduction • Short-Term, Medium-Term & Long-Term Goals • Cross-Departmental Collaboration & Responsibility • Measuring & Reporting Progress*
1100 – 1230	***Change Management for Carbon Neutral Transition*** *Overcoming Resistance to Sustainability Initiatives • Employee Training & Capacity Building • Creating a Culture of Sustainability • Incentivizing Innovation for Carbon Reduction*
1230 – 1245	*Break*
1245 – 1300	***Performance Monitoring & Continuous Improvement*** *Implementing Carbon Management Software • Data Collection & Analytics for Emission Reduction • Third-Party Verification & Audits • Continuous Refinement of Carbon Reduction Strategies*
1300 – 1345	***Practical Implementation of Decarbonization Strategies*** *Case Study: Current Decarbonization Initiatives • Hands-On Exercise: Designing a Carbon Neutrality Plan • Group Discussions on Overcoming Implementation Barriers • Presentation of Decarbonization Action Plans*
1345 – 1400	***Course Conclusion*** *Using this Course Overview, the Instructor(s) will Brief Participants about t 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 and exercises:-

Course Coordinator

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