

Informa Connect

Academy

# Energy Transition Masterclass

The pathways to emissions reduction and energy transition training: A guide to the technologies, their development, current applications, opportunities and challenges.

PERTH 4 - 5 June 2024 | 29 - 30 October 2024



Attend In-Person

**REGISTER NOW**

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# Course Information

## Key Learning Objectives

- Review the global and local makeup of our energy system
- Gain awareness of the various sources of energy, from fossil fuels to renewables
- Understand the history of our energy system and how fossil fuels are located, extracted, processed, and integrated into the system
- Learn how and why the energy system is changing and understand the pace of change
- Appreciate the many alternative sources of energy that can replace fossil fuels and their relative strengths and weaknesses
- Appreciate the commercial aspects of the various energy sources, our changing energy mix, and risks and opportunities associated with the transition

## Who Will Benefit

The energy transition masterclass is designed to provide a wide-ranging examination of our complex energy system from both a technical and commercial perspective. As such, it is applicable to technical and business-oriented professionals working in parts of the energy sector who wish to gain an understanding of the sector as a whole.

New entrants to the energy sector will benefit from this wide perspective, regardless of whether they are technical, nontechnical, private sector or government.

## About the Course

The 2-day energy transition masterclass will provide participants with a solid all-round grounding in the technologies, concepts, methods and language used in the energy business. The program will cover both global and local trends and developments.

Participants will be exposed to a wide variety of energy sources and products, including fossil fuels (coal, oil, gas, LNG), nuclear, renewables (solar, wind, wave, tidal, pumped hydro, biofuels) and universal energy carriers (electricity, hydrogen).

The technical and commercial building blocks of these various energy products will be examined, as well as how projects progress from concepts to installed facilities and the challenges along the way.

Attendees will learn to appreciate the impact of technical, operational, commercial and environmental risk on projects, how they compete or complement each other today, and how this interaction is expected to evolve with time.



*"Great overview with enough detail to explain the concepts even if you have no technical background."*

**Information Officer, NOPSA**

*"Very knowledgeable, good 'on the ground' experience, kept the presentation moving along, very approachable."*

**Divisional Manager, AON Risk Services Limited**

# Meet Your Course Director



**Professor Peter Moore**

Professor Peter Moore is a senior energy executive and has over 35 years of industry experience in the resources industry and academia. Most of his career has been spent in senior and executive management roles within the oil and gas industry, mainly at Esso Australia Ltd, Exxon Exploration Company (Houston) and Woodside Energy Ltd, although he started his career in the mining industry and with the WA Geological Survey.

At Woodside, Peter held many roles, including leading the company's geoscience technology function, and ended his executive career as an Executive Vice President responsible for Woodside's global exploration efforts. In this capacity he managed an annual budget of roughly \$500 million, was a member of Woodside's Executive Committee (ExCom) and its New Opportunities Management Committee, a leader of its Crisis Management Team and Head of the Geoscience function across the company. While at Woodside, he also served on the federal government's grant committee for geothermal energy.

Peter retired from Woodside in 2013, taking up the role of Chair of the Curtin Graduate School Advisory Board, and gradually joining the boards of various companies. For four years from 2014 until 2018, he was a Non-executive Director of Central Petroleum Ltd, Chair of Earth Sciences WA (ESWA Inc.), and Professor and Executive Director of Corporate Engagement within the Faculty of Business and Law at Curtin University. As a Professor at Curtin, he was involved in the university's industry engagement strategy and research direction for both the Curtin Business School and the Faculty of Science and Engineering.

## Course Outline

### GLOBAL ENERGY CONTEXT

- Energy definitions, types of energy, terminology and units
- Global energy supply and demand
- Matching energy sources to the consumption needs of power grids, transport and buildings
- The energy transition: drivers, pace and alternative scenarios
- The role and limitations of electricity as a universal energy carrier

#### *Case study: Australia's energy situation*

- Energy policy history, challenges and opportunities
- Electricity and the National Electricity Market
- Exports, imports, local consumption, emissions
- Energy technology plan and roadmap

### ENERGY TECHNOLOGIES: COAL

- Origin, composition, extraction technologies
- Global reserves, supply/demand balance, price. Australian context

### ENERGY TECHNOLOGIES: PETROLEUM

- Origin, composition, terminology and units
- Global reserves, supply/demand balance, price. Australian and regional context
- Exploration, development, and production of oil, domestic gas and LNG
- Conventional vs unconventional extraction (shale, coal seam gas, fracture stimulation)

### ENERGY TECHNOLOGIES: THE MAIN CURRENT RENEWABLES – WIND, SOLAR, HYDRO AND BIOFUELS

- Global penetration and distribution. Australian context.
- Applications. Technology, operational and commercial aspects

### ENERGY TECHNOLOGIES: HYDROGEN – AN ENERGY SOURCE, A STORAGE MECHANISM AND A UNIVERSAL CARRIER

- Global penetration and distribution. Australian context.
- Applications, technology, operational and commercial aspects
- Growth opportunities, pathways and challenges

### ENERGY TECHNOLOGIES: NUCLEAR

- Global reserves, supply/demand balance, price. Australian context
- History, extraction and refining technology, recent challenges, commercial aspects

### ENERGY STORAGE: OPPORTUNITIES AND CHALLENGES

- Storage requirements to manage intermittent power: challenges, opportunities and commercial aspects
- Principal storage options: batteries, pumped hydro, hydrogen

### BRINGING IT ALL TOGETHER FOR A LOW-CARBON FUTURE

- The future energy mix

*Other requirements: energy intensity and efficiency, emissions capture, behavioural change*

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## Easy Ways to Register



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+61 (02) 9080 4399



[training@informa.com.au](mailto:training@informa.com.au)

## Energy Transition Masterclass

Course Code	Location/ Format	Course Dates	Early Bird price valid until		Standard price valid after		<b>Great Savings:</b> When you book <b>4 or more</b> participants! <b>Call us</b> today on <b>+61 (2) 9080 4399</b> or email <b>training@informa.com.au</b> to take advantage of the discount offer.
			PE - 17 May 24	PE02 - 11 Oct 24	PE - 17 May 24	PE02 - 11 Oct 24	
P24GT29PE	Perth	4 - 5 June 2024	\$2,795.00 + \$279.50	<b>\$3,074.50</b>	\$3,095 + \$309.50 GST	<b>\$3,404.50</b>	
P24GT29PE02	Perth	28 - 30 October 2024	\$2,795.00 + \$279.50	<b>\$3,074.50</b>	\$3,095 + \$309.50 GST	<b>\$3,404.50</b>	

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## ABOUT INFORMA CONNECT ACADEMY

**Informa Connect**

# Academy

**Informa Connect Academy** is a premier provider of global education and training solutions that caters to a diverse range of professionals, industries, and educational partners. We are dedicated to promoting lifelong learning and are committed to offering learners expert guidance, training, and resources to help them stay competitive in a rapidly changing world.

Our comprehensive range of courses and programmes are tailored to meet the needs of all professionals, from aspiring specialists to seasoned experts. We partner with elite academic organisations and industry leaders with unmatched expertise in their respective fields to deliver an exceptional learning experience.

## ON-SITE & CUSTOMISED TRAINING

**Informa Connect Academy** has a long-standing track record of delivering very successful customised learning solutions achieving real and measurable value for our clients through our senior training consultants. If you have 8+ interested people, an on-site course can be the ideal solution – giving you the opportunity to customise our course content to your specific training needs, as well as attracting significant savings compared to public course costs.

## WHY CHOOSE ON-SITE WITH INFORMA CONNECT ACADEMY?

- 1. Custom design** – Together, we will identify the best blended learning solution for your culture, your people and your training objectives.
- 2. Quality assured** – We design market-leading training programs, concepts and methodologies, with a 400+ course portfolio. Our rigorously selected 900+ instructor faculty are recognised experts in their field. Quality of their content and delivery methods is assured through continuous monitoring and evolution.
- 3. On-site training** is a cost effective way to train your people and achieve your defined outcomes.

Speak with **Sushil Kunwar** on **+61 (2) 9080 4370** to discuss your customised learning solution, or email [inhouse@informa.com.au](mailto:inhouse@informa.com.au)



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