

# Energy **Transition Training**

Carbon Transition Pathways

The Energy Transition may be the biggest challenge ever to face the global economy. Along the way to net zero carbon, opportunities, setbacks, and risks must all be identified and managed.

But where to begin? CarbonTP has developed an Energy Transition Training Course to elevate the knowledge of Australia's energy, mining and industrial professionals.

Our in-house experts have designed the content to benefit those with both technical and non-technical backgrounds while catering to broad and diverse teams.

Everyone interested in the Energy Transition will walk away with a deeper understanding of its key aspects, trends and, most importantly, the possibilities.

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### Intro to the Energy Transition

**FULL DAY COURSE** 

#### **Topics Covered**

#### The case for change.

Exploring the Paris Agreement and how we're tracking. Is Anthropogenic Global Warming real, and why does it matter? When it doesn't matter, climate activism, financial risk exposure and technological disruptions.

#### Questions for a vast global energy system.

How much fossil fuel do we consume? Understanding energy, power and what our fossil fuel consumption means in energy terms. Is the transition to renewables even possible?

#### How long will the transition take?

A look at historical energy transitions and what might impact the speed today. Carbon pricing and Marginal Abatement Cost [MAC] curves alongside Australia's Safeguard Mechanism and the EU Carbon Border Adjustment Mechanism [CBAM].

#### The Greenhouse Gas Protocol.

What is the Greenhouse Gas Protocol, and what does it cover? The concept of scope and carbon accounting.

#### What are the solutions to the decarbonisation problem?

Focusing on the four pillars of decarbonisation: efficiency, supply switching, mitigation and offsets.

#### Let's talk about energy.

Fossil fuels, electricity, electrification and the macro-financial implications.

#### Future sources of supply.

Introducing Levelised Cost of Electricity [LCOE], solar PV, wind turbines and hydro alongside geothermal, concentrated solar power, ocean, biomass, E and biofuels.

#### The future of energy transmission and distribution.

Discussing AC and High-Voltage DC [HVDC] power transmission and hydrogen as an energy vector.

## Hydrogen: Swiss Army Knife of decarbonisation or weapon of mass distraction?

Uncovering the hydrogen ladder, its characteristics and challenges. The H2 rainbow, green and blue H2 and derivatives.

#### Energy storage and alternative solutions.

Introducing Levelised Cost of Storage [LCOS], pumped hydro, short and long-duration batteries. Low-temperature thermal vs. high-temperature thermal, compressed and liquid air, hydrogen, packetised energy management, demand response and microgrids.

#### Presented by:



Mark is a renowned expert on energy and the energy transition. He has spent 20 years in operational roles across hydrogen and ammonia manufacturing and upstream and downstream oil and gas.



Martin has broad knowledge of the energy transition, renewable energy and carbon offsets. He developed the Transition Pathways Approach [TPA] to provide businesses with a structured and repeatable process to evaluate decarbonisation options and make executable plans for a net zero future.



The course catered to a range of knowledge levels and was comprehensive, covering all key aspect of the energy transition."

Kris Waddington | Buru Energy COO