

## Single Electricity Market (SEM) Fundamentals

### Learning and development objectives:

- Understanding all elements of the Single Electricity Market, including energy trading, system services and capacity markets
- The regulatory and commercial framework that underpins SEM
- How electricity is traded over different time horizons
- Key wholesale market trading concepts
- How TSO balancing activity occurs after market closure
- What the Capacity Remuneration Mechanism is intended to achieve and how it works
- Key challenges for SEM and the outlook

### Session 1 – SEM market overview

10am

#### Introduction & welcome

- Tech check!
- Aim and objectives

#### SEM market overview

- What is SEM?
  - Energy Trading Arrangements
  - DS3
  - Capacity Remuneration Mechanism

Module 1

- SEM market operator role
- SEM market participants: mandatory and voluntary
- EU ambition for 'coupled' markets

*Case study: How it all fits together – the regulatory and commercial frameworks*

Break

#### Overview of the wholesale markets

- Wholesale market overview and concepts
  - 'Balancing Responsible Party'
  - Central dispatch
  - Spot, prompt and futures markets
  - Hedging – shaping, volume and liquidity risk

Module 2

- SEM timelines
  - Futures markets
  - Day-ahead
  - Intra-day
  - Continuous market
- *Case study: A day in the life of the SEM – trading across DAM and IDM markets*

11.45am

Q&A

12pm

What we will cover off in session 2 and close

## Session 2 – Wholesale market trading pricing and trends and balancing the system: Role of the TSO

10am	<b>Introduction &amp; welcome</b>
	<ul style="list-style-type: none"> <li>• Tech check!</li> <li>• Aim and objectives</li> </ul>
	<b>Wholesale market trading pricing and trends</b>
Module 3	<ul style="list-style-type: none"> <li>• Wholesale market price drivers                             <ul style="list-style-type: none"> <li>○ Gas price drivers</li> <li>○ Electricity price drivers</li> </ul> </li> </ul>
	<i>Case study: Impact of wind power on wholesale prices</i>
<b>Break</b>	
Module 4	<b>Balancing the system</b>
	<ul style="list-style-type: none"> <li>• Role of the Transmission System Operators (TSOs)                             <ul style="list-style-type: none"> <li>○ Balancing the system</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>• The Balancing Market</li> <li>• DS3 system services                             <ul style="list-style-type: none"> <li>○ Introducing response and reserve services</li> </ul> </li> </ul>
11.45am	<b>Q&amp;A</b>
12pm	<b>Close</b>

## Session 3 – Capacity Remuneration Mechanism and the future

10am	<b>Introduction &amp; welcome</b>
	<ul style="list-style-type: none"> <li>• Tech check!</li> <li>• Aim and objectives</li> </ul>
	<b>Capacity Remuneration Mechanism</b>
Module 3	<ul style="list-style-type: none"> <li>• Rationale</li> <li>• Rules, roles and responsibilities</li> </ul>
	<ul style="list-style-type: none"> <li>• Scheme overview, auction parameters and results</li> <li>• Key parameters</li> <li>• Obligations and penalties</li> </ul>
	<i>Case study: An interesting day</i>
<b>Break</b>	
Module 4	<b>The future electricity system</b>
	<ul style="list-style-type: none"> <li>• From DS3 to DASSA – competitive markets for system services</li> </ul>
	<ul style="list-style-type: none"> <li>• Outlook to 2030 for the electricity system</li> <li>• Rise in demand and data centres</li> <li>• Long duration energy storage</li> </ul>
11.45am	<b>Q&amp;A</b>
12pm	<b>Close</b>