

# Flexibility academy

## Learning and development objectives:

- The key services required under each of the basket of frequency ('dynamic'), reserve, response and Balancing Mechanism opportunities
- An overview of the current and proposed procurement processes for services offered by the National Energy System Operator (NESO)
- How values realised for services have changed and the type of assets delivering flexibility services
- The outlook for flexibility markets as Distribution System Operator services are developed

## **Session 1 – Role of NESO and frequency response services**

### Introduction & welcome

- 10 am
- Tech check!
  - Aim and objectives

### Role of the National Energy System Operator (NESO)

- Module 1
- Who is it?
  - System Operator roles
    - Voltage
    - Frequency
    - Inertia
    - Congestion management

### *Discussion and Q&A*

### Break

### Frequency response services overview and access

- Module 2
- What is it for?
  - What markets are available?
    - Static FFR, Dynamic Regulation, Dynamic Moderation, Dynamic Containment
  - What revenue can be expected?
  - Unique service considerations by the NESO
  - Drivers of future reform

### *Discussion and Q&A*

11.45 Q&A

12.00 What we will cover off in future sessions and close

## **Session 2 –Reserve services and revenue stacking**

### Introduction & welcome

- 10 am
- Tech check!
  - Aim and objectives

- Reserve services overview and access**
  - Why the NESO needs reserve
  - Short-term operating reserve (STOR)
  - Quick, Balancing and Slow Reserve
  - Drivers of future reform
- Module 1**
- Discussion and Q&A*

**Break**

- Revenue stacking across ESO services**
  - Accessing Ancillary Services
  - The EAC and OBP
  - Stacking revenue streams
- Module 2**
- DSO Flexibility Services**
- Rise of embedded generation
  - Jumping and Splitting with NESO services
  - Participating DNOs and technologies
- Discussion and Q&A*

11.45 Q&A

12.00 What we will cover off in future sessions and close

**Session 3 – Balancing mechanism**

**Introduction & welcome**

- 10 am
- Tech check!
  - Aim and objectives

**Balancing Mechanism overview and access**

- What is it?
  - How does it work?
    - Bids and offers
    - Bid Offer Acceptances (BOAs)
    - Energy vs. System Actions
- Module 1**
- The System Imbalance Price
  - Discussion and Q&A

**Break**

**Accessing the BM**

- How to Enter the BM
    - What are Balancing Mechanism Units (BMUs)
    - CVA vs SVA vs VLP vs AMVLP
  - Technologies in the BM
- Module 2**
- Current & Future state of the BM**
- Issues with the BM & potential solutions
  - OBP, small scale asset trials
  - Emerging markets
  - Drivers of future reform

*Discussion and Q&A*

11.45 Q&A

12.00 What we will cover off in future sessions and close

## **Session 4 – Capacity Market and Routes to Market**

10 am Introduction & welcome

- Tech check!
- Aim and objectives

**The Capacity Market and routes to market**

- What is it?
- How does it work?
  - De-rating factors
  - CM auctions and clearing prices
- Module 1**
  - Why is it a lucrative revenue stream?
  - Routes to Market
    - Flexible Power Purchase Agreements (PPAs)
    - Offtakers and optimisers
  - *Discussion and Q&A*

Break

**The Future of Flexibility in GB**

- Current issues
- What's next for flex?
- Future services
- New market roles

*Discussion and Q&A*

11.45 Q&A

12.00 Close and next steps