

# RESEARCH QUESTION

Given existing design challenges and increasing penetrations of variable renewable energy resources as energy transition proceeds, how should we design or, at the very least, approach the design of operational practices for balancing electricity markets?

## RESEARCH OBJECTIVES

### RO1

To determine what features are needed in centrally-coordinated arrangements for procuring frequency control services during energy transition

### RO2

To better understand how the capabilities and deployability of balancing flexibility in scheduling timeframes are changing during energy transition, and whether these changes impact the suitability of more decentralised operational balancing practices

## CHAPTERS

Chapter 4

Chapter 5

Chapter 6

Literature review

Data analysis

Techno-economic modelling

## RESEARCH METHODS