

# FROM TIDES TO TAKE OFF

## A new aviation world first for a modern aero engine

**01**

### THE CHEMISTRY

Use this renewable electricity to power an electrolyser and generate green hydrogen via electrolysis



### THE ENERGY

Harness both wind and tidal power at EMEC on the Scottish islands of Orkney in the UK to generate renewable electricity

**03**

### THE POWER

Convert an AE 2100-A aero engine and use it to combust hydrogen instead of conventional kerosene

**05**

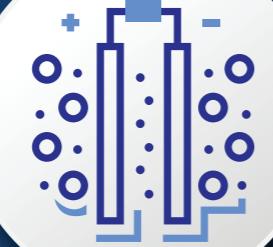
### THE POTENTIAL

Continue to explore hydrogen as one of the technological solutions for zero-carbon flight from the mid-2030s

**02**

### THE SQUEEZE

Compress the hydrogen from 20 bar to 200 bar pressure in order to maximise the amount available in the tank, equivalent to 100 times more pressure than a typical car tyre

**04**

### THE LEARNING

Collect valuable data and further improve our understanding about how to handle and operate hydrogen as a fuel

**06**