

Energy Transition Careers

Alison Isherwood

My Career Path

1997



MEng Chemical
Engineering
Nottingham
University

1997-2016



Reservoir Engineer -> Technical Manager -> Chief Engineer

2017->

AJ Isherwood
Consulting Ltd.

Independent
Consulting

2021-2025

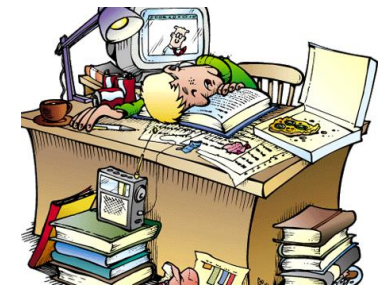
GHG emissions
Geothermal
Hydropower
CCS
Hydrogen & Helium
Oil & Gas

CHARIOT



GHG Accounting
Qualification

2020



Sustainable
Business
PostGrad Certificate
Focus on Green jobs, Just
Transition, Start ups

sustain:able
SUSTAINABILITY MADE SIMPLE

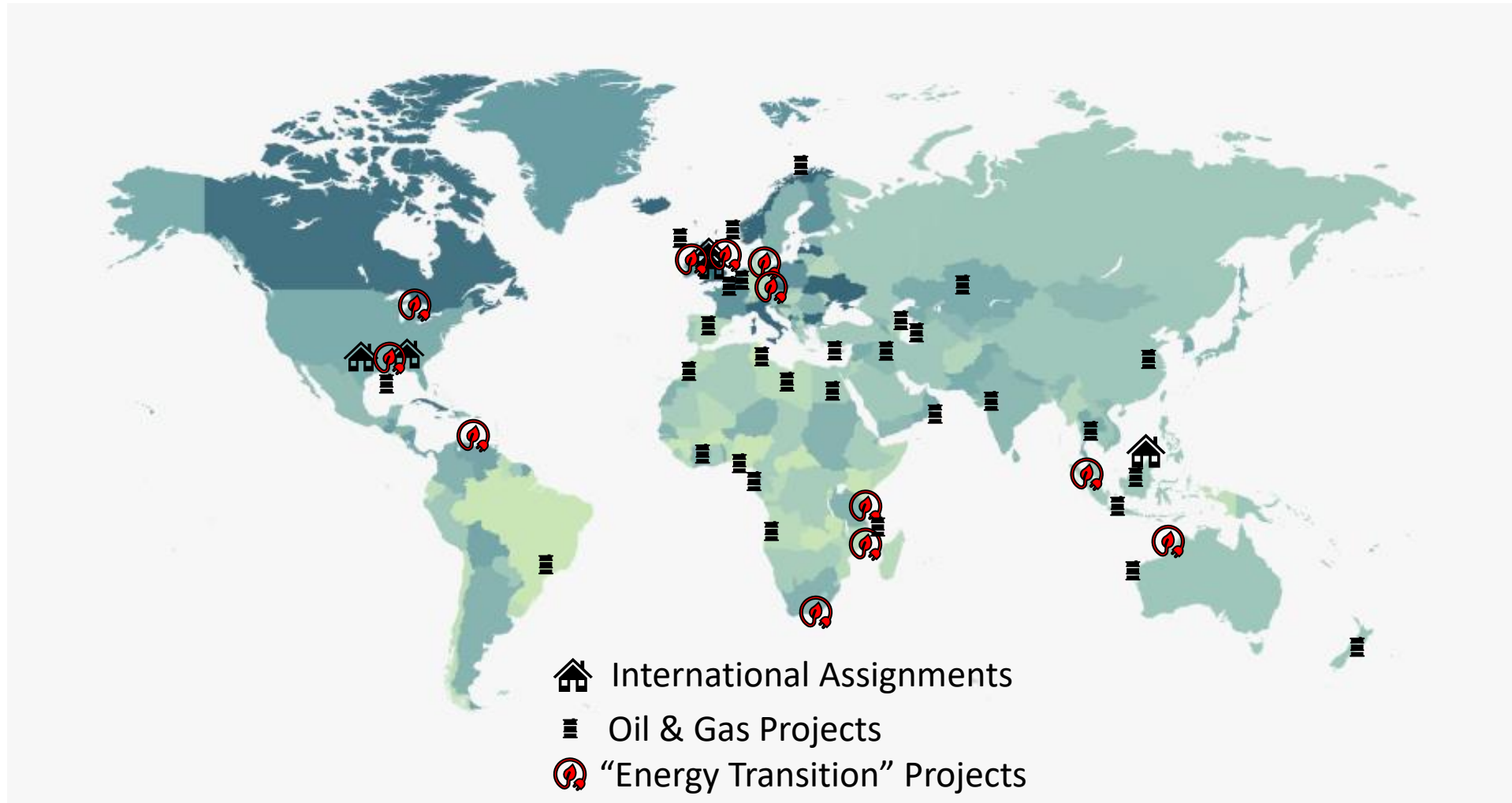


London SPE Net
Zero Programme



My Career Path

- Energy Transition jobs are global too





Energy Transition Careers

AJ Isherwood
Consulting Ltd.

- Areas of interest:
 - Geothermal
 - Carbon Capture & Storage
 - Natural Hydrogen & Helium
 - Energy Storage, electrification & renewables
 - GHG Accounting & decarbonising Oil and Gas
- Crossover & challenges
 - Technical due diligence
 - Funding & investment
 - Regulation & public perception
 - Career Opportunities

What are the current challenges (Energy Transition vs. Oil&Gas)?

Technical Due Diligence

- ET academic vs. O&G well-established rules of thumb & field calibration
- **ET grand claims amid lack of robust analysis?**
- **O&G established processes but selective disclosure?**

Regulation & Public Perception

- ET lack of public exposure & understanding
- O&G projects Scope 3 Category 11 challenges
- **Carbon storage regulation –is there too much focus on guarantees of containment? What is the risk of “making it up as you go along” for CCS regulation?**
- **Will public opposition dictate the future direction in energy?**

Funding & Investment

- Government/Philanthropic ET support but with onerous grant applications
- ET -private company often reluctant to lead the way (looking for high “technical readiness”)
- **ET vs. O&G –less or more risk, price volatility or politics?**
- **Path to commercialization for UK geothermal and hydrogen -just complex or unrealistic?**

Career Opportunities

- ET Start-ups –lack of funding, websites/Linkedin may look impressive, reality is often different
- **Corporate O&G have been “dipping toes” in energy transition, are they all now retreating?**
- **Are the consultants winning? Early-stage studies that don’t advance to full projects and lots of jobs?**
- **Are green energy job growth predictions realistic?**

Technical Due Diligence

Forbes

BUSINESS > ENERGY

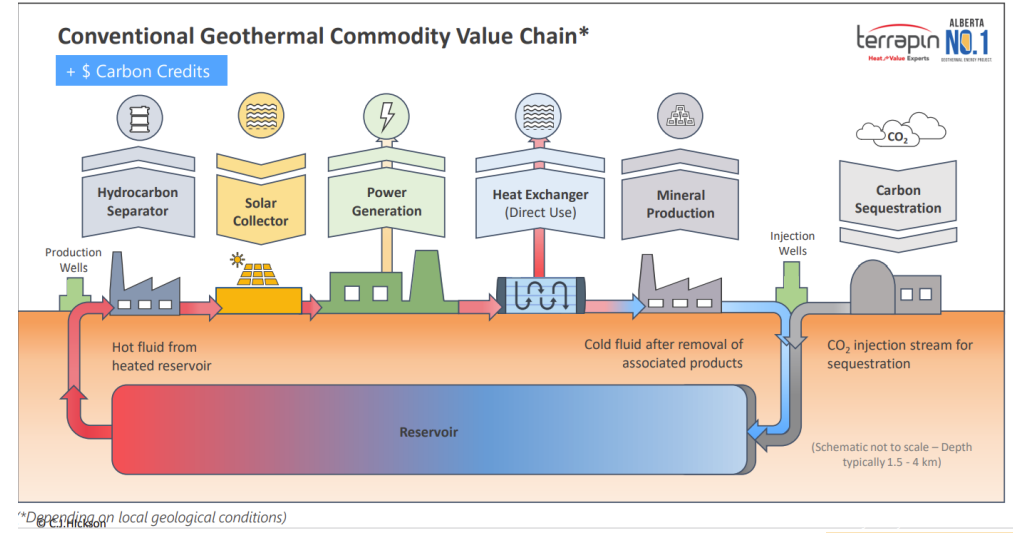
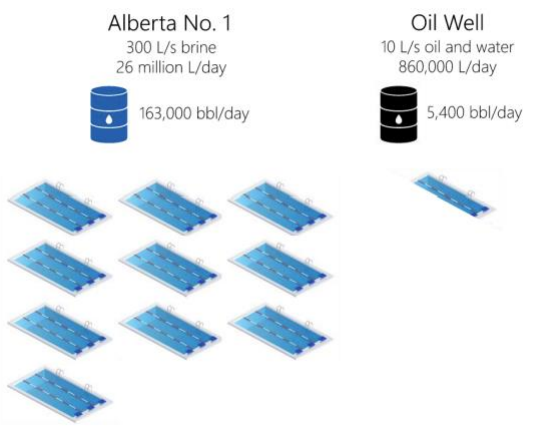
How Clean, Next-Gen Geothermal Could Power The World 140 Times Over

By **Ken Silverstein**, Senior Contributor. © Ken Silverstein covers global energy...
Published Aug 18, 2025, 08:45am EDT, Updated Aug 18, 2025, 01:27pm EDT

“Abundant but dilute resource”

“Hot water worth 10x less than oil”

How Much Is Produced In 24 Hours?



FINANCIAL TIMES

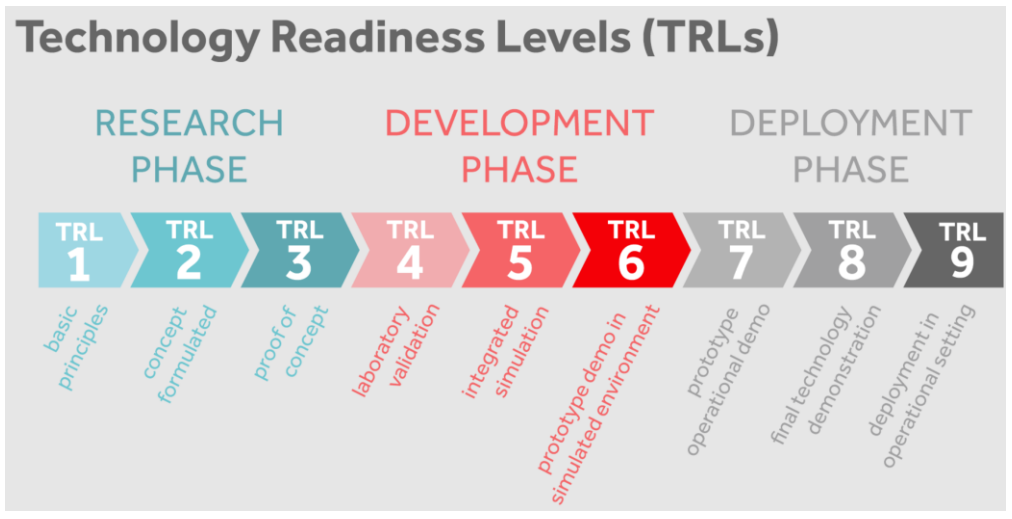
JK COMPANIES TECH MARKETS CLIMATE OPINION LEX WORK & CAREERS LIFE & ARTS HTSI

Energy sector [+ Add to myFT](#)

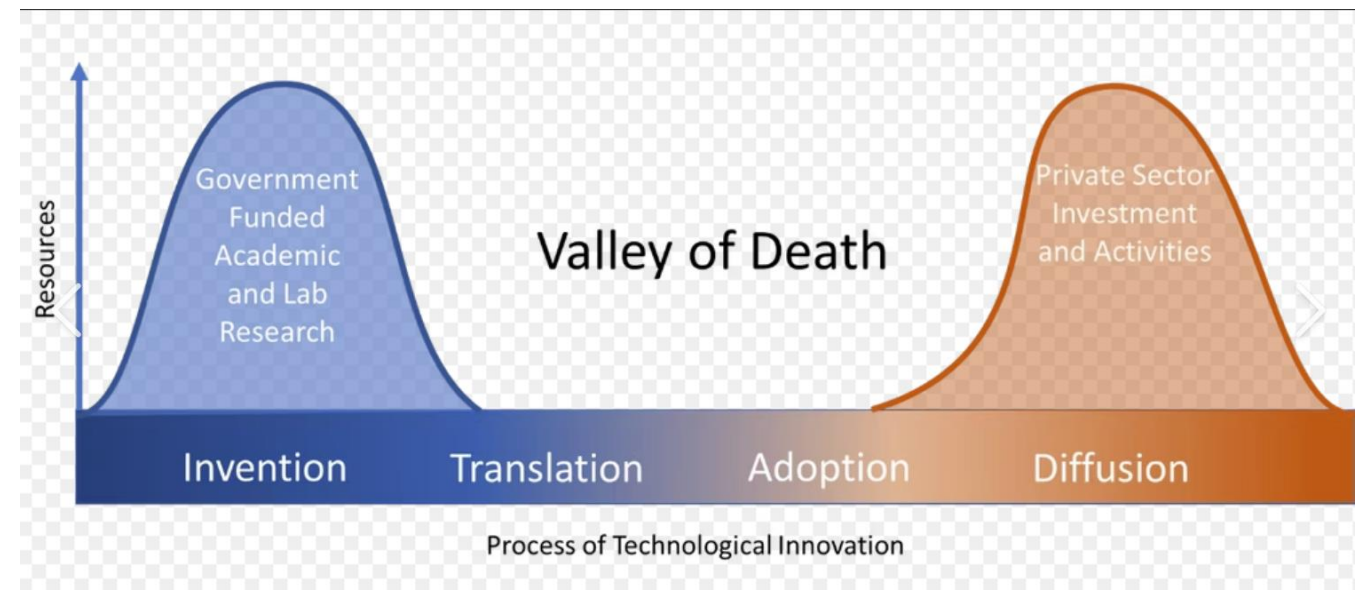
UK geothermal developer seeks £600mn to expand into lithium in Cornwall

GEL joins race to cash in on region’s mining revival

Funding & Investment -example



“Bridging the valley of death between public and private funding”



“Patient Capital”

James Cook

Scotland Editor, BBC News

30 January 2025 · 3038 Comments

A court has ruled that consent for two new Scottish oil and gas fields was granted unlawfully and their owners must seek fresh approval from the UK government before production can begin.

The written judgement on the Rosebank and Jackdaw fields came after a case brought by environmental campaigners, Uplift and Greenpeace, at the Court of Session in Edinburgh.

“Scope 3 Category 3 is usually >85% of an O&G company’s emissions”

“The dark art of determining significance”



Career Opportunities

AJ Isherwood
Consulting Ltd.

BBC Sign in Home News Sport Weather iPlayer Sounds

NEWS

Home | InDepth | Israel-Gaza war | War in Ukraine | Climate | UK | World | Business | Politics | Culture

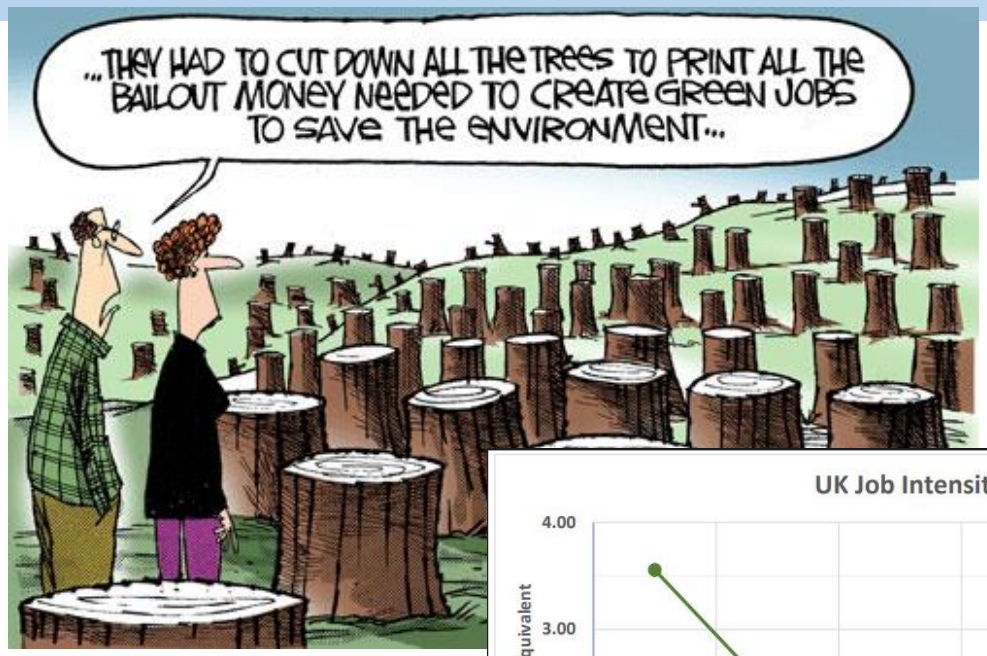
UK | England | N. Ireland | Scotland | Alba | Wales | Cymru | Isle of Man | Guernsey | Jersey | Local News

Government vows to create 400,000 jobs in energy sector



Ed Miliband says 400,000 jobs is "not a target, it's what we need"

Pritti Mistry
Business reporter



Major Oil And Gas Company Cuts Jobs And Reduces Renewables For Fossil Fuels

By [Chris Westfall](#), Contributor. © Guidance for leaders and aspiring leaders, in...

Follow Author

Published Mar 01, 2025, 10:59am EST. Updated Mar 26, 2025, 10:21am EDT

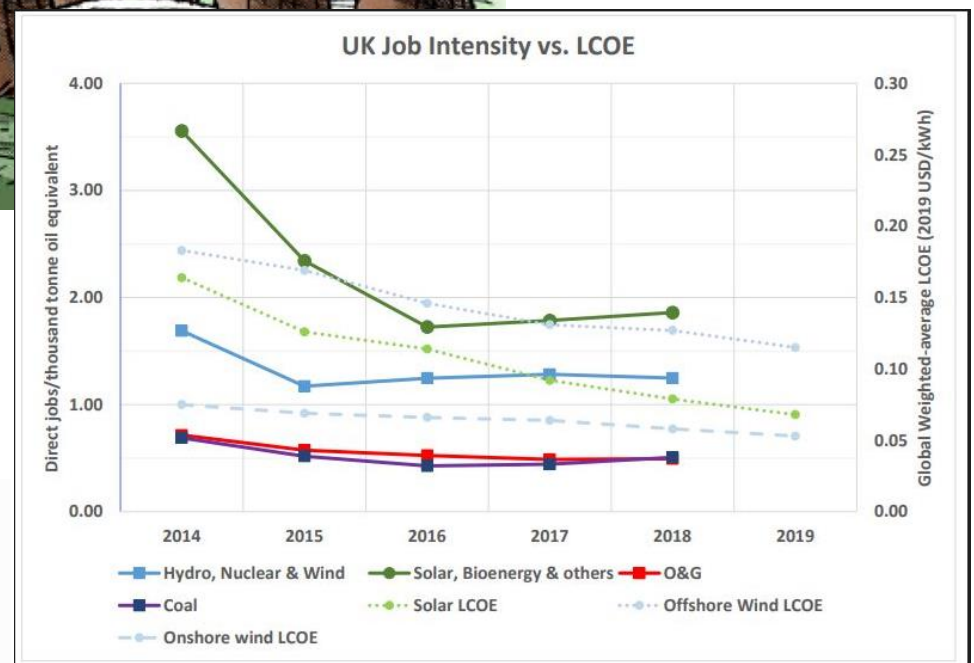


Figure 3.2: Author derived chart using LCREE/DUKES/OGUK/IRENA data



Energy Transition Careers

My insights

AJ Isherwood
Consulting Ltd.

- Experienced oil and gas people across multiple disciplines needed to support the energy transition
 - My biggest contribution? Robust technical audit
 - O&G experience may not be valued or compensated as well as you would like
 - Energy transition remains frustratingly “pre-development” in many areas with high uncertainty
- Watch out for green job and technology hype (“Hopium” & “Greenwishing”)
 - Embrace your entrepreneurialism but go in with your eyes open
 - New technology should adhere to fundamental physics and thermodynamics
 - Pay close attention to funding and path to commercialisation
- You can continue to make a positive contribution in oil and gas or keep a foot in both worlds
- Anyone working in energy can benefit from better understanding of wider energy system transition
 - Plenty of bias, don’t believe everything you read and/or hear –consult diverse sources

Info Sources: General

- London SPE Net Zero Committee resources (presentations & recordings 2021-2024):
 - [SPE Net Zero Gaia virtual programme - SPE London \(spe-london.org\)](https://spe-london.org)
 - Technical paper search (oil & gas and other) [OnePetro](https://www.onepetro.com)
- IEA (International Energy Agency) reports [Global Energy Review 2025 – Analysis – IEA](#)
 - [Topics – Analysis – IEA](#) (lots of other stuff!)
- IPIECA (International Petroleum Industry Environmental Conservation Association)
 - [Ipieca | Advancing environmental and social performance across the energy transition](#)
- UK Government reports
 - [Carbon budget and growth delivery plan - GOV.UK](#)
 - UK Committee on Climate Change (CCC) [Climate Change Committee](#)
- Net Zero Technology Centre –technology development across oil and gas and energy transition
 - [Net Zero Technology Centre](#)
- Corporate oil & gas annual energy reports
 - bp [Energy Outlook | Energy economics | Home](#), Shell [The 2025 Energy Security Scenarios | Shell Global](#), National Grid (now NESO) [Future Energy Scenarios \(FES\) | National Energy System Operator](#)

Info Sources: Geothermal

- ThinkGeoEnergy
 - [ThinkGeoEnergy - Geothermal News & Insights Global Geothermal News, Market Trends & Business Intelligence](#)
- IEA The Future of Geothermal report (Dec 2024)
 - [The Future of Geothermal Energy – Analysis – IEA](#)
- Project Inner Space resources
 - [Project InnerSpace | Resources](#)
 - [Event Archives](#)
- UK geothermal
 - [Home - GEL Energy](#)
 - [Projects – TownRock Energy](#)
 - [Eden Geothermal – Unlocking the energy from the rocks beneath our feet](#)
 - [Case Studies - Causeway Energies](#)

Info Sources: Carbon Storage

- Global CCS Institute
 - [Global CCS Institute | Carbon Management at Scale](#)
- Northern Lights open resource info
 - [Reports, analysis and assessments - Northern Lights](#)
- UK Carbon storage
 - NSTA (North Sea Transition Authority) [Carbon storage](#)
 - [Carbon capture and storage \(CCS\): knowledge sharing - GOV.UK](#)
 - [CEDA Archive Web Browser](#) (ETA 2015/2016 studies –lots of details)
- EU CCS Directive
 - [Deploying Industrial Carbon Management in Europe - Climate Action](#)
 - [Implementation of directive 2009/31/EC on the geological storage of carbon dioxide - Publications Office of the EU](#)
- USA Class VI well resources
 - [Class VI - Wells used for Geologic Sequestration of Carbon Dioxide | US EPA](#)

Info Sources: Hydrogen & Energy Storage

- UK Government Hydrogen Strategy
 - [Hydrogen update to the market: July 2025 - GOV.UK](#)
- Energy Storage
 - [Large-scale electricity storage | Royal Society](#)
- Hydrogen UK trade association
 - [Networks & Storage - Hydrogen UK](#)