cornerstone barristers

The Energy Transition (1): Renewables

Estelle Dehon KC, Ryan Kohli & Olivia Davies

May 2024

01

Introduction & solar

Olivia Davies

01

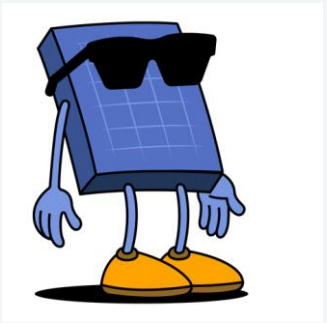
Introduction to the energy transition

02

What counts as a renewable technology?

03

Solar: legal & regulatory issues



The Energy Transition – the what

- **Net Zero by 2050**

- **Carbon budgets**

The Energy Transition – the how

POLICY APPROACH

- Net Zero Strategy (2021) set out policies and proposals for decarbonising all sectors of the UK economy to meet the net zero target.

- Updated by:
  - The Net Zero Growth Plan (2023) which focused on scaling up and deploying renewable technology for decarbonising homes, power, industry and transport.

  - The Carbon Budget Delivery Plan (2023) which set out proposals, policies and timescales in respect of meeting the fourth to sixth carbon budgets.

What counts as a renewable technology?

Tried and tested

- Wind
- Solar power
- Hydro-electric

What counts as a renewable technology?

Up and comers

- Carbon capture and storage
- Tidal
- Geothermal

Depends who you ask

- Nuclear
- Biomass

Solar power – legal & regulatory issues

GRID CONNECTION AND CAPACITY

- Queue of solar projects waiting for a grid connection estimated to amount to 500 GW, with some waiting for as long as 15 years.
- Even developers *with* a grid connection aren't necessarily being allowed to use it…
- Reinforcement work to the grid not being scheduled to finish until the 2030s means developers are having their output curtailed, some up to 100%.

LOOSENING OF REGULATION FOR ROOF MOUNTED SOLAR

- Change to permitted development rights so all homeowners can now install solar panels without applying for PP.
- Removal of the restriction on industrial rooftop solar above 1MW.

DEVELOPMENT CONTROL

Which regime?

<50 MW:

- Need planning permission under the Town & Country Planning Act 1990.
- Is the proposal in accordance with the development plan overall?
- If on Green Belt land – are there Very Special Circumstances (VSCs) needed for PP?

>50 MW

- Nationally Significant Infrastructure Project - needs a DCO.
- Determined under the Planning Act 2008 and relevant policy NPS EN-1 & 3.
- Benefit from a rebuttable presumption in NPS EN-3 that certain tests (including the Green Belt VSCs test) are met.

Potential planning permission pitfalls

Type of land used – is it BMV?

Technology choice – as efficient as it could be?

Amount of land used – is it all really needed?

02

Wind and Tidal

Ryan Kohli

Wind: Legal & Regulatory Issues

ONSHORE WIND

- Wind turbines turn the power of wind into electricity. They can be stand-alone, supplying just one home or can be clustered in wind farms.
- Political climate since 2015 has been problematic for **on-shore** wind. Former PM David Cameron's view was that the public were "fed up" with such developments.
- Significant support for on-shore wind in devolved administrations.
- Amendment to footnote 58 in 2023. Substantial new on-shore wind farms remain unrealistic.
- New NPS omits on-shore wind. Good Law Project launched JR challenge. Permission refused in April 2024.

ONSHORE WIND

- How is permission secured?

With difficulty. Para 163 NPPF must be read with Footnote 58 which makes clear that applications should **not be considered acceptable** unless:

(i) the area has been identified as suitable in the development plan or a SPD;

(ii) there must be community consultation; and

(iii) the planning impacts identified by the affected local community have been appropriately addressed.

OFFSHORE WIND

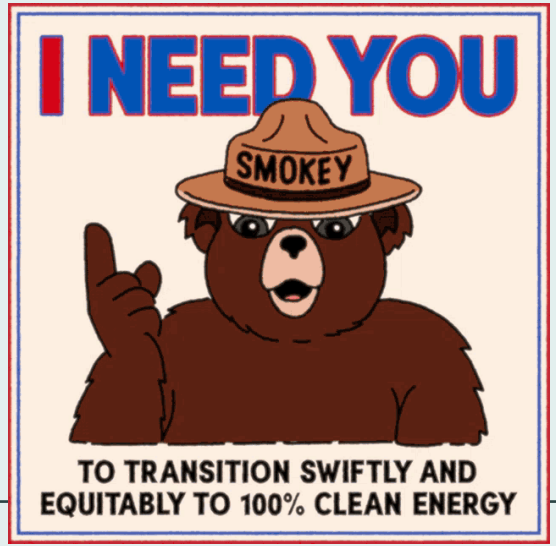
- Has substantial policy support. Offshore wind currently contributes about 13% of UK electricity
- 44 wind farms and 2,500 turbines
- November 2020: 10-point plan green revolution places offshore wind central to help achieving net zero
- Commitment by 2030 to generate more power than needed for all UK homes in 2020

OFFSHORE WIND

- British Energy Security Strategy published April 2022. Ambition to deploy 50 gigawatts of offshore wind capacity in the UK by 2030 with up to 5 gigawatts from floating wind
- UK is home to world's first two floating offshore wind farms and by 2030 the target is for there to be 24 floating offshore wind farms.
- Technological advancement is such that with a single turn of their blades, the last turbines generate enough electricity to power a house for more than 24 hours
- Government estimates that the target will encourage £20 billion of private investment into the UK and could double the jobs in the sector in the next decade.

OFFSHORE WIND

- Offshore transmission network review launched in 2020 and concluded in 2023
- Announced significant changes to existing codes, standards and processes to put transmission delivery “on the front foot”
- Launched a fund of up to £100m to support the development of coordinated options for well-developed projects



OFFSHORE WIND

- BESS announced plans to speed up the consenting process for offshore wind. Aims to reduce consenting times from up to 4 years to 1 year.

- Energy Act 2023 received Royal Assent on 26 October 2023. Delivers HMG's Offshore Wind Environmental Improvement Package (OWEIP) aimed at reducing the consent process.

- Part 13, Chapter 1 of the Act enacts the key elements of the Package including:

- new powers to tailor Habitat Regulation Assessments needed before an offshore wind farm is consented

- new compensatory measures for negative environmental effects that cannot be avoided or mitigated

- A new Marine Recovery Fund

TIDAL ENERGY

- Still in its infancy. Amount of power produced is small. Very few commercial sized tidal power plants in the world. But UK estimated to have around half of the potential wave and tidal resource in Europe.

- Tidal stream: turbines are placed in tidal stream which is a fast flowing body of water created by tides. Underwater wind turbines.

- Turbine takes energy from a flow of water. Water more dense than air – tidal energy is more powerful than wind energy.

TIDAL ENERGY

- Tidal barrage is another type of energy generator which uses a large dam called a barrage constructed across tidal rivers, bays and estuaries.
- It captures tidal energy as it moves through the structure. Proposal in Swansea in 2018 for a tidal lagoon to provide 155,000 homes electricity for 120 years but this was rejected by SoS as it did not offer value for money.
- Severe environmental impacts if not managed properly. The land in the tidal range is disrupted and the salinity inside the lagoon lowers which changes the organisms that are able to live there.
- Call for evidence held in 2020 on innovative marine energy projects but no response to the call for evidence was ever produced
- Policy support (NPPF and EN3)and funding support exists. Contract for difference scheme. In 2023, 11 today energy projects with a capacity of over 50MW were supported. This amounts to a per/KWh support for tidal farms.

03

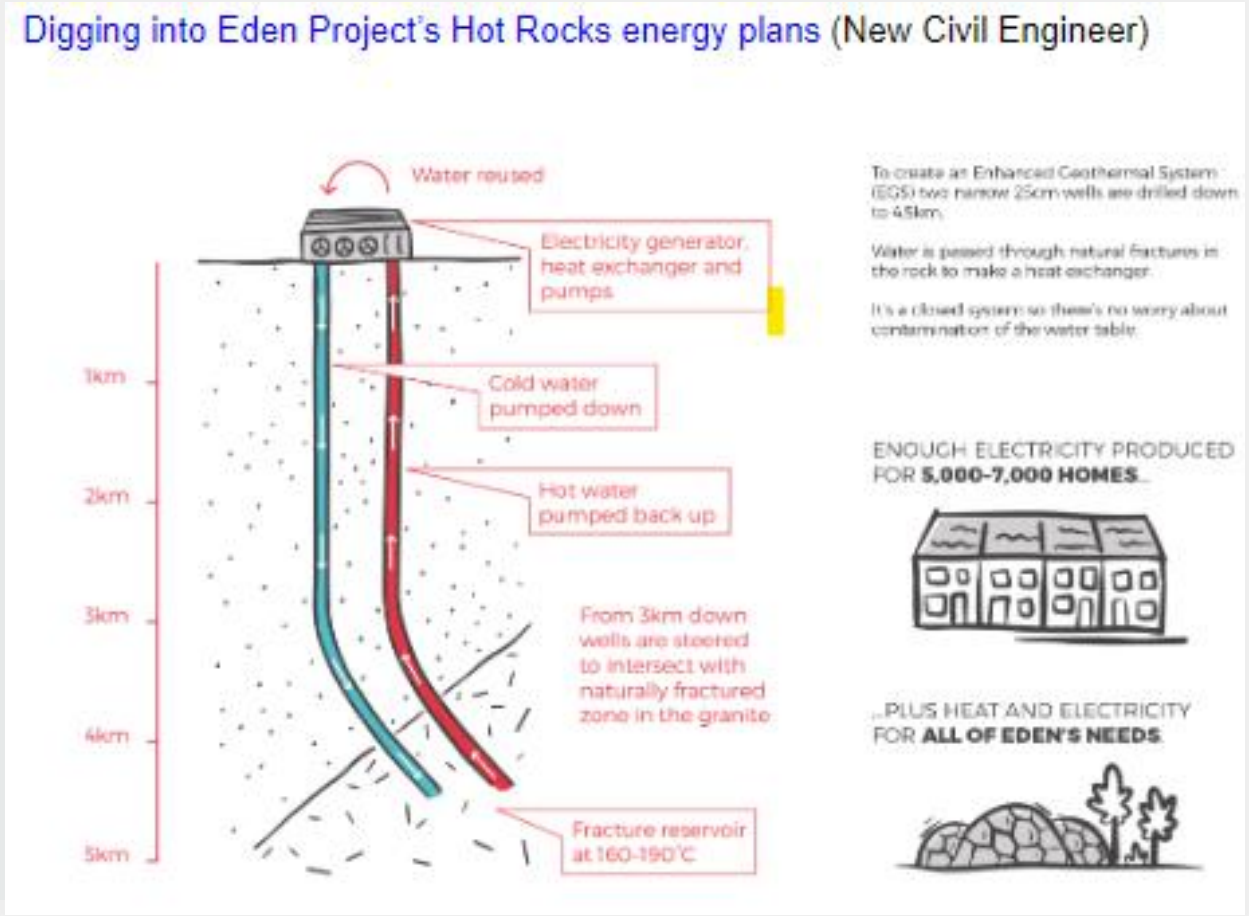
Geothermal, Nuclear & Biomass

Estelle Dehon KC

Geothermal

What is geothermal energy?

British Geological Survey



Geothermal examples

- Quite a lot of shallow geothermal (ground source heat pumps may even be permitted development)

- Deep geothermal – a lot in Cornwall
  - Eden Project
  - United Downs Deep Geothermal Power
  - Manhay Project, Cornwall
  - Langarth Deep Geothermal Heat Network, Cornwall
  - Repurposing oil and gas wells in North Yorkshire and Lincolnshire

Geothermal issues

- No separate policy support
  - White Paper July 2023 “‘The case for deep geothermal energy — unlocking investment at scale in the UK’
- Repurposing oil onshore oil and gas wells: Environment Agency report 2022
  - Screening process for suitability
- Grid connection bottlenecks apply to geothermal too (Eden cannot connect to the grid until December 2036

The contested renewables: nuclear and biomass

cornerstone barristers

Nuclear

- Sizewell A, B and C (and Tea)
- Small Modular Reactor (SMR) competition for innovative nuclear technologies

- Overarching National Policy Statement for Energy (EN-1) & National Policy Statement for Nuclear Power Generation (EN-6)

- Water Industry Act 1991

- *Together Against Sizewell C* judicial review challenges [2023] EWCA Civ 1517

Biomass

- Drax power plant (Selby)
  - Combustion of biomass in four units
  - In 2020, Drax generated 11% of the UK's renewable power
  - Permission January 2024 for two to operate with CCUS – Biofuelwatch judicial review challenge
  - Humber Low Carbon Pipelines Project
- Planning permission and environmental permitting
- Biomass Policy Statement (Nov 2021)
- Biomass Strategy (August 2023)

cornerstone barristers

Questions

Olivia Davies, Ryan Kohli and Estelle Dehon

clerks@cornerstonebarristers.com

Cornerstone Climate Month

Still to come!

- 15-5-24 (am) Carbon Delivery Budget Plan
- 15-5-24 (pm) UK Progress towards Net Zero
- 20-5-24 (am) Power to the People: renewable energy from source to user
- 21-5-24 (pm) Carbon Capture and Storage
- 22-5-24 (am) From Old to Gold: challenges in retrofitting
- 23-5-24 (pm) Climate Change and the Law: The Basics #2: the international perspective
- 28-5-24 (am) Financing the Green Transition
- 29-5-24 (am) Climate and the right to protest
- 29-5-24 (pm) Climate litigation in the civil courts
- 30-5-24 (pm) Climate Change and Human Rights

Catch up on previous sessions:
Climate Change and the Law: The Basics #1
Policy Making: How to Plan for Net Zero
Real estate and ESG
Climate as a material planning consideration
Ecocide and greenwashing