



UK Civil Nuclear Policy

Alasdair Harper, Head of Enabling Policies,
Advanced Nuclear Innovation Team, BEIS.

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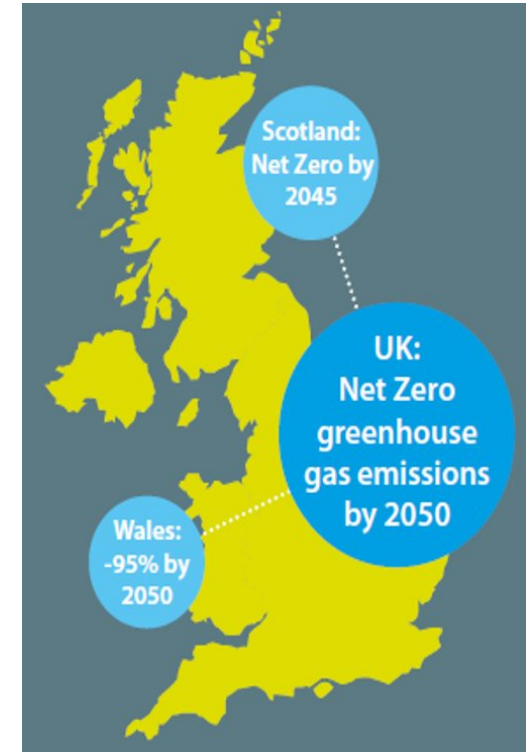
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1. UK Energy Landscape

- UK has set in law the ambition to reach “Net Zero” by 2050
- Nuclear power provides about 20 % of the UK’s electricity and 40 % of the UK’s low carbon electricity
- UK Electricity demand is expected to more than double by 2050 with all the current generating nuclear facilities expected to be decommissioned by 2035
- New, firm, low-carbon power will be required and Small Modular Reactors (SMRs) and Advanced Modular Reactors (AMRs) could help to fill that gap
- Small nuclear can help diversify local economies, but nuclear must also be cost-competitive
- There is potential to go “beyond the grid” and look to decarbonise industrial processes with low carbon heat or hydrogen.



2. UK experience in nuclear

- Nuclear has played an important role in our power sector for almost 65 years.
- Our first nuclear power plant was connected to the grid in August 1956.
- Nuclear continues to provide around 17% of the electricity generated in the UK.
- Ambition to deploy a commercially competitive UK Small Modular Reactor design by early 2030s.



Sellafield



Springfields



Capenhurst

3. UK Energy policy

HM Government

The Ten Point Plan for a Green Industrial Revolution

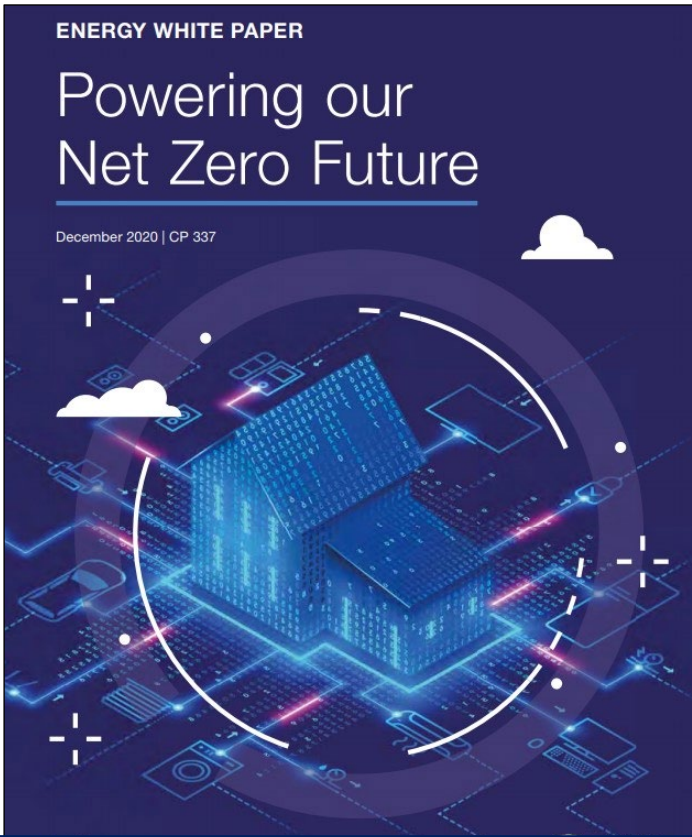
Building back better, supporting green jobs, and accelerating our path to net zero

- Point 1**
Advancing Offshore Wind
- Point 2**
Driving the Growth of Low Carbon Hydrogen
- Point 3**
Delivering New and Advanced Nuclear Power
- Point 4**
Accelerating the Shift to Zero Emission Vehicles
- Point 5**
Green Public Transport, Cycling and Walking
- Point 6**
Jet Zero and Green Ships
- Point 7**
Greener Buildings
- Point 8**
Investing in Carbon Capture, Usage and Storage
- Point 9**
Protecting Our Natural Environment
- Point 10**
Green Finance and Innovation

**Advanced Nuclear Fund:
£385 million**

Small Modular Reactors:
£215 million

Advanced Modular Reactors:
£170 million



UK Government is clear that nuclear power continues to be an important and proven source of reliable clean electricity

We recognise the importance of nuclear including potentially small and advanced reactors, as having a role to play in meeting our net-zero carbon targets.

4. Evolution of nuclear



Present

3rd Gen Reactors

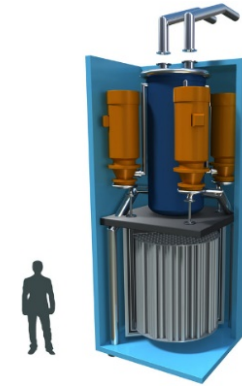
- 440 operating globally
- Economies of scale
- HPC due on line 2027
- SZC under discussion
- Interest in Bradwell, Wylfa and Moorside



2030s

Small Modular Reactors

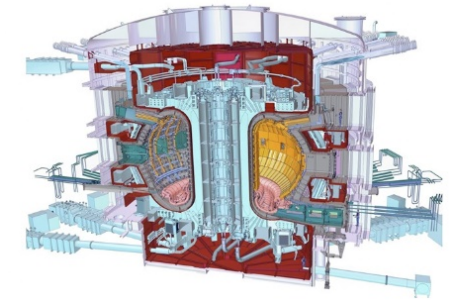
- Existing technology deployed in smaller units (e.g., 440 MW)
- Innovative model (e.g., modular build/manufacture)



2030s-40s?

Advanced Modular Reactors

- Multiple techs and fuels
- Safer and cheaper claims
- Different uses (heat)
- Demo early 2030s



2040s – 50s?

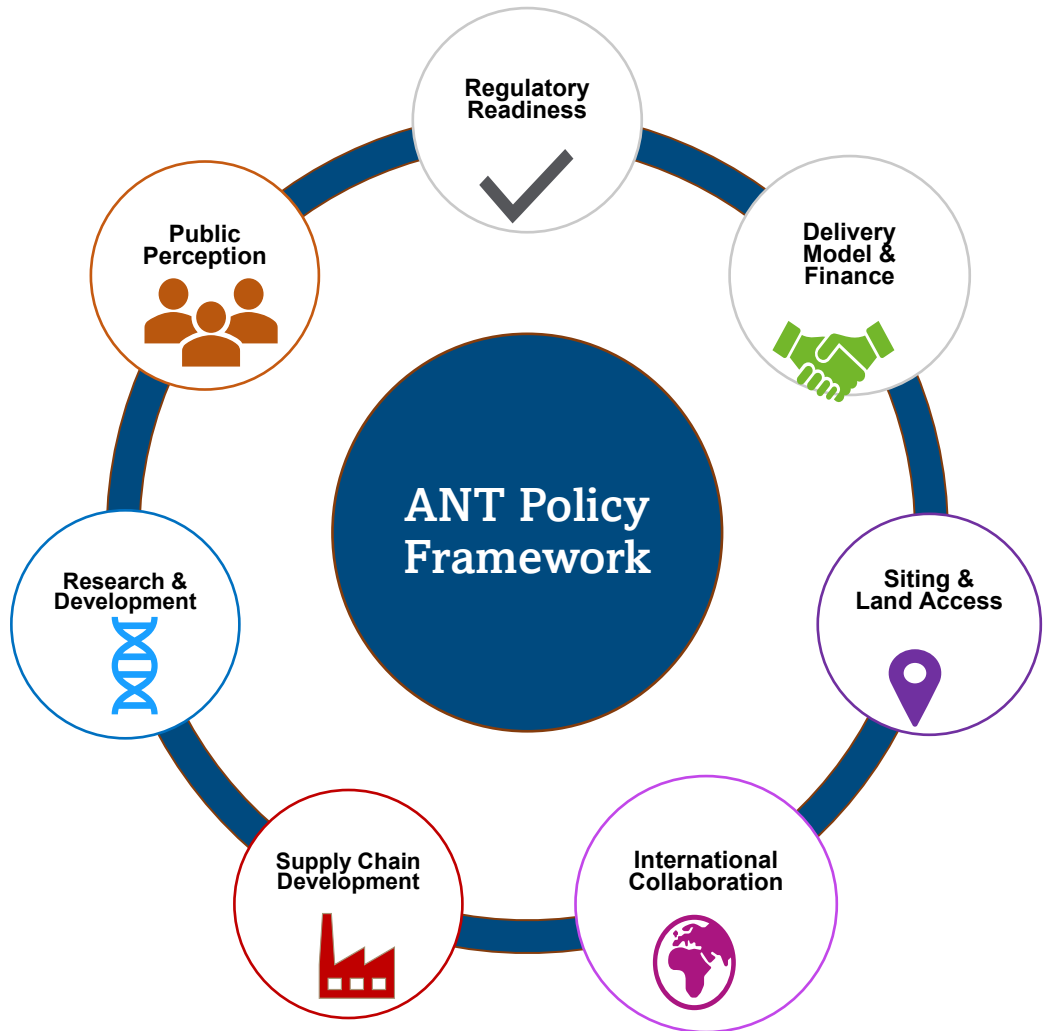
Nuclear Fusion

- UK STEP
- Global Lead
- Demo 2040s
- Looking for UK site

5. ANT policy framework

Policy enablers fundamental to delivery are:

-  Regulatory Readiness (GDA)
-  Delivery Model & Finance
-  Siting & Land Access



Contacts:

smrteam@beis.gov.uk

**1 Victoria Street
London
SW1H 0ET
United Kingdom**

www.gov.uk/beis

<https://twitter.com/beisgovuk>

Thank you !

