Sizewell C and Hydrogen

Hydrogen Week
26 February 2024

Sizewell C Introduction

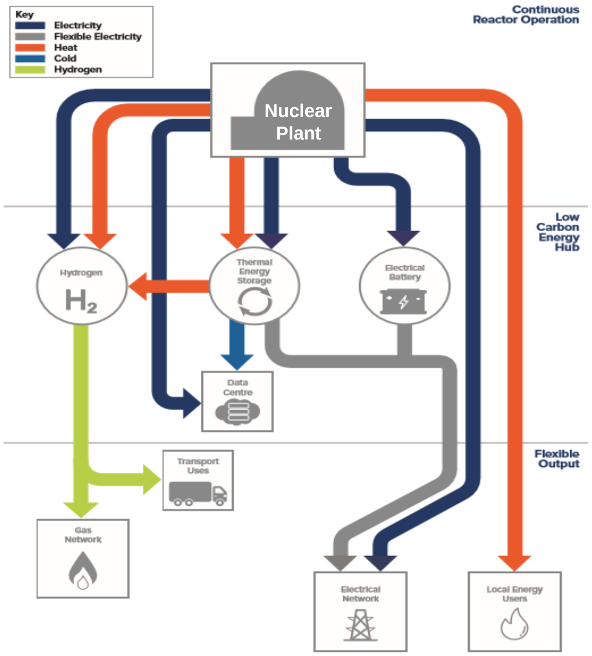
Sizewell C is a 3.2 GW nuclear power station being constructed in East Suffolk.

- Sizewell C will provide 7% of the UK’s current demand for electricity with 24/7 low carbon electricity for 60 years.
- The design will be a close replica of Hinkley Point C (currently under construction in Somerset).
- New nuclear power is a critical component of Britain’s long-term commitment to Net Zero and the security of energy supply.
- The Project has made strong commitments to the local community and local businesses about the environment and its economic benefits locally and regionally.

Sizewell C Energy Hub

Sizewell C
The power of good for Britain

As part of an Energy Hub, Sizewell C can make an even greater contribution to the UK's net zero ambition, helping to decarbonise industry, transport and heating

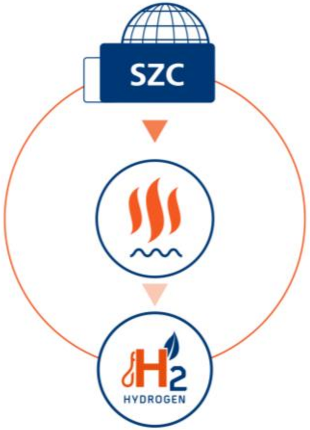


Sizewell C has the potential to produce:

- **Low carbon hydrogen** – Using heat to make electrolysis more efficient
- **Direct Air Capture**, making Sizewell C **carbon negative**
- **Clean fuels** for shipping and aviation
- Clean heat for industrial processes and for **district heating**

Hydrogen at Sizewell C

Sizewell C
The power of good for Britain



Nuclear power produces low-carbon heat which makes hydrogen production more efficient

Hydrogen Strategy

The goals for utilising hydrogen at Sizewell C are:

- Decarbonise construction.
- Kick-start the hydrogen economy locally.
- Support Government's policy* on hydrogen and Net Zero by 2050
- To future proof the construction project and be alive to industry developments

Links to Co-generation

- By kickstarting a local hydrogen economy, Sizewell C has the option of supporting local hydrogen production through its energy hub concept.

*10 GW hydrogen production capacity by 2030

Hydrogen Busses at Sizewell C

Demonstrator Vehicle

Concept design for pilot buses

Hydrogen Bus Pilot

- hydrogen bus pilot scheme in 2024.
- 4 new Wrightbus hydrogen buses
- A demonstrator hydrogen vehicle in April.

Full Hydrogen Fleet

- Will procure up to 150 hydrogen powered buses for the peak of construction.
- The full fleet will service the park and ride facilities and construction worker routes to and from site.

Associated Infrastructure

- To operate the full fleet, 2 x hydrogen refuelling stations and a local, low carbon hydrogen supply will be required. This could result in local community availability and benefit.

Additional Hydrogen Opportunities

Hydrogen Powered Plant/Equipment

Further hydrogen use cases are being explored, such as:

- non-road mobile machinery (e.g. hydrogen diggers);
- Potential white fleet needs; and
- Site equipment (hydrogen generators and lighting stacks)

Red Diesel Replacement Competition

- A consortium led by Ryze / JCB awarded c.£3m of Government funding to test a mobile hydrogen refuelling system.
- The focus of the award is how hydrogen powered equipment can be used on large/diverse construction sites.
- SZC has the option to make a physical site available or to support a desktop study.

Thank you