

# Net Zero Innovation Portfolio

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[www.ktn-uk.org](http://www.ktn-uk.org)

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# £1bn Net Zero Innovation Portfolio

BEIS's £1bn Net Zero Innovation Portfolio will accelerate the commercialisation of low-carbon technologies, systems and business models in power, buildings, and industry. The Portfolio will decrease the costs of decarbonisation and set the UK on the path to a low carbon future.

The four year programme will provide funding for 10 priority areas.

- **floating offshore wind**
- nuclear advanced modular reactors (supported through the aligned Advanced Nuclear Fund)
- **energy storage and flexibility**
- **bioenergy**
- hydrogen
- homes (building efficiency and low carbon heating)
- **direct air capture and greenhouse gas removal (GGR)**
- advanced CCUS
- industrial fuel switching
- disruptive technologies

<https://www.gov.uk/government/collections/net-zero-innovation-portfolio>



# Energy Storage and Flexibility

BEIS will launch £68m **Longer Duration Energy Storage** fund in Spring 2021. The competitions are intended to accelerate commercialisation of innovative longer duration energy storage technologies.

There are three themes for development and demonstration:

- electrical storage
- thermal storage
- power to x (gas, fuel, e.g. storing energy as hydrogen)

Storage solutions such as pumped hydro or lithium ion batteries that have already been demonstrated at scale are out of scope

BEIS are looking for innovative storage solutions that could

- be deployed at large scale,
- provide competitive flexibility services, to and from the grid
- provide longer-duration storage capability (over 4 hours, longer durations scoring higher)

# £68m Longer Duration Energy Storage

## **BEIS's proposed competition scope and delivery**

£68m will be split across two competitions which BEIS plan to launch simultaneously in Spring 2021.

### **£37m Stream 1 First of a Kind Demonstrator (Grant)**

Stream 1 will provide grant funding for demonstrations of storage solutions (TRL 6-7) at scale in an operational environment. It will be a two stage process.

- Phase 1 £1m per project to plan the build (project Sept 2021)
- Phase 2 £11m per project to build the demonstration (project Sept 2022 – March 2025)

### **£30m Stream 2 First of a Kind Prototype (SBRI)**

Stream 2 will provide 100% funding for prototype storage solutions (TRL 4-5) trialled in an operational environment. It will be a two stage process.

- Phase 1 £50,000 per project to plan the trial (project Sept 2021 – Dec 2021)
- Phase 2 £9.45m per project to build and trial the prototype (project Jan 2022 - March 2024)

Stream 2 hopes to develop a pipeline of projects that will feed into Stream 1 at a later stage.

<https://www.gov.uk/government/publications/longer-duration-energy-storage-demonstration>



The **Biomass Feedstocks Innovation SBRI** opened on 3rd March. The competition aims to support the development of innovations that address the current barriers to large scale domestic biomass supply in the UK – biomass feedstock production and processing within the farm or forest boundary.

## **Feedstocks that are in scope**

- Second generation energy crops (non food)
- Long and short rotation forestry
- Marine based feedstocks (algae)

Food, fodder and waste feedstocks are out of scope

## **Innovations that are in scope (currently at TRL 4-7)**

- Mechanical (e.g. harvesting)
- Geospatial (e.g. drones)
- Infrastructure (e.g. storage)
- Biological (e.g. breeding, genetic selection)
- Agronomy and Silviculture
- Chemical (e.g. pyrolysis)
- Scientific data synthesis where it is directly related to feedstock production

Social science related projects such as farm advisory activities are out of scope

The programme is split into two phases;

**Phase 1 £4m Project Development** - closes on the 7<sup>th</sup> May 2021

- **Lot 1 Innovation Project** £200,000 per project to plan the development of an innovation at a single site
- **Lot 2 Multisite Demonstrator** £200,000 per project to plan the build and operation of a multisite demonstration

(project August 2021 - 31<sup>st</sup> January 2021)

**Phase 2 Demonstration (proposed)**

- **Lot 1 Innovation project** £4m per project to develop and demonstrate an innovation including a commercialisation route OR
- **Lot 2 Multisite Demonstrator** £5m per project to build a multi site demonstration (using the same or different innovations)

(project completion by March 2025)

<https://www.gov.uk/government/publications/apply-for-the-biomass-feedstocks-innovation-programme>

Any questions?