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Ultra-Long Duration Energy (uLDES) Storage Surgery Session - Questions and Answers

Questions related to the competition Scope and Technology Eligibility

Questions Raised

- What technologies are considered eligible under the electrochemical uLDES competition?
- Are hydrogen-derived systems, ammonia, methanol, e-fuels, fuel cells, primary batteries or hybrid systems within scope?
- How should the boundary between electrochemical and hydrogen-related storage technologies be interpreted?

Answer

The competition is intended to support electrochemical energy storage technologies that deliver a round-trip, power-to-power cycle: electricity is used to charge the system, and electricity is produced when the system discharges.

Projects focused on lithium-ion or lead-acid technologies are not in scope. Non-electrochemical storage approaches are also excluded, including technologies that store energy primarily in thermal, mechanical or electrical form, such as molten-salt thermal storage, compressed-air energy storage, pumped-hydro storage and capacitors.

Hydrogen fuel-cell projects are not eligible. Systems that rely on the combustion of hydrogen, ammonia, methanol, e-fuels or other molecules to generate electricity are also out of scope.

For hybrid or less conventional systems, applicants should consider the system's overall energy-storage pathway. To be eligible, the proposed technology must meet the electrochemical, power-to-power principle above and must not depend on an excluded storage approach. Eligibility will be assessed against the full competition scope.

Questions related to the technical requirements and the 100-hour discharge criterion

Questions Raised

- How should the 100-hour discharge requirement be interpreted?
- Can systems achieve compliance by reducing discharge rates?
- Must systems be rechargeable?
- Can technologies operate in different modes, for example normal operation at higher power and emergency operation at lower output?

Answer

The 100-hour requirement should be interpreted by considering the system's rated discharge power alongside its rated discharge energy. Applicants must set out a credible pathway to delivering the relevant grid-connected demonstration by 2030:

Stream 1: a grid-connected demonstration project of at least 1 MW / 100 MWh, rated to discharge by 2030.

Stream 2: a grid-connected pilot demonstration project of at least 1 kW / 100 kWh, rated to discharge by 2030.

These minimum power and energy ratings correspond to a 100-hour discharge duration at rated power. The technology must be rechargeable and capable of completing repeated power-to-power storage cycles. A system may be designed to operate at different power levels for different use cases, but its proposed demonstration must still meet the minimum rated power and energy thresholds for the relevant stream and satisfy the wider competition requirements.

Questions related to demonstration sites, infrastructure and grid connection

Questions Raised

- Can existing university or demonstration centre grid connections be used?
- Are repurposed industrial sites acceptable?
- Can sites identified through NESO-related programmes satisfy requirements?

Answer

Applicants may propose a site at a demonstration or test facility with which they have an arrangement, a facility they already own, a repurposed industrial site, or a greenfield development. Existing grid connections and infrastructure may therefore be used where they are suitable for the proposed demonstration and the applicant has, or can establish, the necessary access and arrangements.

Regardless of the type of site selected, the application should provide evidence that the site and technology are sufficiently ready for the proposed project. This should include a credible approach to site access, grid integration, consenting and permitting, and any other arrangements required to deliver the demonstrator within the project timeframe. Where some of these requirements are managed by a host test or demonstration facility, applicants should explain the relevant responsibilities and provide evidence of the arrangements in place.

Questions related to economic assessments and cost methodology

Questions Raised

- How should total cost of ownership be calculated?
- How should technologies with differing lifetimes be compared?
- Should replacement costs be included?
- Can revenue streams be offset against storage costs?
- Will a standard template be provided?

Answer

For the purposes of this competition, applicants should present the system capital expenditure required for installation, excluding grid-connection costs. The assumptions and calculations used should be clearly stated.

If components or systems are expected to require replacement to achieve the required 25-year system lifetime, the associated replacement costs should be included in the total system capital expenditure.

The competition scope text on the Innovation Funding Service has been updated to reflect this clarification - <https://apply-for-innovation-funding.service.gov.uk/competition/2574/overview/48cb1c09-fcef-4ae8-a700-d79db606fba8>

Questions related to assessment criteria and competition expectations

Questions Raised

- Are certain assessment criteria weighted more heavily than others?
- How will cost, deployment, manufacturing and supply-chain impacts be assessed?

Answer

Application questions are weighted equally unless the published competition guidance states otherwise. Applicants should therefore respond fully to every question and follow the scoring guidance provided on the Innovation Funding Service.

Cost, deployment, manufacturing and supply-chain considerations will be assessed through the relevant application questions and against the published scoring criteria. Applicants should provide clear, proportionate evidence to support their claims, explain the assumptions used and demonstrate how their proposed approach contributes to credible delivery and future deployment in the UK.

Questions related to project outputs and UK delivery requirements

Questions Raised

- What outputs are expected from funded project development studies?
- What evidence is required to demonstrate readiness for future deployment?

Answer:

Funded project development studies should produce the evidence and plans needed to support the next stage of technology scale-up and demonstration. Depending on the project, outputs may include technology assessments, front-end engineering design studies, scale-up roadmaps, market assessments, demonstration plans, and manufacturing and supply-chain plans.

Applicants should explain how their proposed outputs will reduce the key technical, commercial and delivery uncertainties associated with future deployment. They must also demonstrate a credible pathway to UK deployment and commercialisation,

supported by appropriate evidence such as delivery milestones, site and grid considerations, manufacturing and supply-chain requirements, market opportunities, project partners and future investment needs.

Questions related to application process and administration

Questions Raised

- Must subcontractors be formally engaged before submission?
- Will the 30 September 2026 deadline be extended if major clarifications are issued?

Answer

Subcontractors do not need to have formal agreements in place before submission. They can be identified in the application at this stage, but applicants should clearly explain their proposed role, the work they will undertake and the associated costs. Any required agreements should be put in place before the subcontracted work begins.

We have reviewed the clarifications raised and updated the competition scope where needed. The competition deadline remains unchanged: applications must be submitted by 11:00am on 30 September 2026.

Please review the Innovation Funding Service competition page for the latest scope text: <https://apply-for-innovation-funding.service.gov.uk/competition/2574/overview/48cb1c09-fcef-4ae8-a700-d79db606fba8>

Applicants are responsible for ensuring that their application reflects the latest published competition guidance before submission.