

# *Flexible Funding Call 2022*

## *“Role and value of energy storage technologies in supporting cost effective transition to zero carbon energy future”*

### *Supergen Energy Storage Network+*

#### *Call Headline Details*

Call opens	1 <sup>st</sup> March 2022
Closing date	11 <sup>th</sup> April 2022
<b>Scope: Role and value of energy storage technologies in supporting cost effective transition to zero carbon energy future</b>	
Funding level	80% of full economic costs (FEC)
Available resource for this call	£50,000 (80%FEC)
Maximum grant value per applicant	£50,000 (80%FEC)
Application review complete and award decisions made	4 <sup>th</sup> May 2022
*If not all monies are allocated in the first submission round, the Management Board retains the right to re-open the process to applications or to allocate further funding to the highest ranked proposals, based on approval of an extended project scope.	

#### *Summary*

The Supergen Energy Storage Network+ connects and serves stakeholders across the whole energy community, advancing and championing UK energy storage research and deployment.

A major deliverable for the Supergen Network+ is its flexible funding scheme. A total of £410,000 is available over the next four years to support development through travel and conference grants, feasibility studies and research projects that will enhance existing knowledge to facilitate academic, industrial, policy or international impact.

**Expressions of Interests (EoIs)** are sought for the modelling work to be carried out within Supergen Energy Storage Network+, which will provide quantified evidence related to the role and value of energy storage technologies in supporting cost effective transition to zero carbon energy system. **The expectation is that this work can be done in twelve months or less.**

A total of **£50,000** is available in the current round of funding. The maximum funding available by Supergen Network+ is £50,000 (at 80% FEC) per project. Only one submission per applicant is permitted.

#### *Context*

This project should provide fundamental evidence related to the role of energy storage systems within a net-zero system under different future heat decarbonisation scenarios, including hydrogen, electrification and hybrid heating, while considering extreme conditions, such as very low temperature

and prolonged low renewable energy production. The work is expected to consider (but not limited to) the following:

- Assess the potential need and associated system benefits of different storage technologies e.g., electricity, hydrogen, thermal, with different key characteristics e.g., rating, efficiency, duration, location, charge/discharge rates, energy storage volumes deployed;
- Quantify the interaction with other flexibility technologies such as demand side response (DSR), vehicle-to-grid (V2G), cross energy vector flexibility options (e.g. electrolyzers, district heating, industrial sector), interconnection with EU, etc.;
- Identify key driving factors that will affect level of deployment of different energy storage technologies for reaching 2050 net-zero target.

This modelling should capture (a) high temporal granularity to simultaneously consider second-by-second supply-demand balancing issues (e.g., inertia reduction due to high share of renewables and frequency regulations) as well as long term investment; (b) high spatial granularity in order to adequately consider the synergies and conflicts between local/district and national level infrastructure requirements. This modelling should also consider the interaction between different energy vectors e.g., electricity, gas, heat, transport, etc., as this will become critical in future zero carbon energy system.

Special focus should be placed on the explanation of key insights and core findings in order to convey important messages to industry, policy and regulatory bodies.

EoIs will be judged based on the established level of expertise and quality of the academic institution, related to the whole-energy system modelling. **Please submit a (maximum three-page) document describing the resource required, the background of the academic institution and proposed methodology structure. If undertaking this work, it is essential to recruit an early career researcher (ECR)**, please indicate this in the application. Applications enhancing the equality, diversity and inclusivity performance of the host institution and the energy storage community more broadly are especially encouraged.

### *Eligibility*

For this call, EoIs are invited from eligible UK researchers, i.e. applicants based in UK Higher Education Institutions (HEIs), Research Council Institutes and Centres, and Independent Research Organisations (IROs) approved by UKRI. We expect that the applicant's research focus is within scope of the Supergen Network+ wider activities.

Submitted projects may be from a single UK academic institute or may be collaborative with a defined lead. The funding supports eligible activities as defined by UKRI, including but not limited to: staff time, travel, subsistence, consumables, and experimental costs. All costs must be fully justified as relevant to the proposed project. The funding is provided by EPSRC and information on the eligibility of organisations and individuals to receive EPSRC funding is available in the [EPSRC-UKRI funding guide](#).

## *Assessment Process*

Members of the Supergen Network+ Management Board will review eligible expression of interest. The Management Board will then make a final decision on which proposals receive funding. Every effort will be made to ensure that there are no conflicts of interest.

## *Evaluation Criteria*

- Established level of expertise and quality of the academic institution / research group;
- Proposed methodology structure;
- Fit with the scope of the call;
- Recruitment of an ECR;
- Fit to the aims of the Supergen Network+;
- Co-funded proposals are welcome though this is not essential. However, for EoIs with the same quality, priority will be given to co-funded proposals.

## *Submission*

Please submit the following to [Dr Antzela Fivga](#):

- Up-to-date CV (max. 2 page), highlighting track record relevant to the proposed research;
- Please submit a (maximum three-page) document describing the resource required, the background of the academic institution/research group and the proposed structure of methodology;
- Application form (please find below);
- Any supporting letters.

## *Terms and Conditions*

Terms and conditions of standard UKRI grant awards apply. All project outputs and engagement should include Supergen Network+ and UKRI/EPSCRC branding. Funded projects will be required to produce:

1. Contribution to the development of the Supergen Network+ white paper (format TBC).

## *Equal Opportunities*

The Supergen Network+ is dedicated to address Equality, Diversity and Inclusion (EDI) within all aspects of its remit. Accordingly, no eligible applicant will receive less favourable treatment on the grounds of gender, marital status, sexual orientation, gender re-assignment, race, colour, nationality, ethnicity or national origins, religion or similar philosophical belief, spent criminal conviction, age, disability, career breaks, paternity/maternity or adoption leave breaks. Applications will be assessed on their merits, in accordance with the evaluation criteria set for the call with all reviewers having received unconscious bias training and guidance.

## Point of Contact

If you have a query concerning any aspect of this call, please contact the Supergen Network+ manager Dr Antzela Fivga at [a.fivga@bham.ac.uk](mailto:a.fivga@bham.ac.uk).

## More information

For more information about the Supergen Network+, please see our website [www.supergenstorage.org](http://www.supergenstorage.org).

## GDPR

This application will be stored by the University of Birmingham. By submitting it, you acknowledge that the information you provide will be transferred to the University of Birmingham for processing. All information will be held safely and in compliance with GDPR and the Equality Act 2010. The Supergen Network+ team will use this information to select research projects for funding. You can ask us to delete your data at any time by emailing [energystorage@contacts.bham.ac.uk](mailto:energystorage@contacts.bham.ac.uk). Please note that without this data, we will be unable to process your application and so your application will be withdrawn.

## Application Form

Applicant Information			
Name of applicant			
Organisation			
Email			
Phone			
Job Role			
<b>Describe your current research area</b> (max. 100 words):			
<b>Funds requested</b> (please itemise these in £GBP; confirmation that costs are in accordance with institutional guidelines will be required by the date of award):			
Resource	Justification (when applicable)	Full economic cost (FEC)	Award value (80% FEC)
<b>Total value requested from Supergen Network+</b>			<b>£</b>
<b>Details of additional external funding</b> (if applicable)			