DECC Energy Storage Innovation Competitions

Briefing and Networking Event

6 November 2012

DEPARTMENT OF ENERGY & CLIMATE CHANGE

Ian Ellerington
Head of Innovation Delivery, DECC

Energy Storage Competitions:

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Agenda

10.30	**Introduction** • Welcome & format for the day • DECC Energy Storage Scheme, including Q&A	**Ian Ellerington,** **Head of Innovation Delivery, DECC** **Sally Fenton,** **Innovation Delivery Team, DECC**
11.30	***Coffee Break***	
11.45	**Breakout sessions - 1**	**Attendees with facilitators** **(4 groups)**
12.45	***Networking lunch***	
13.30 **14.30**	**Breakout sessions – 2** (reconvene into groups or move to other groups) **Summary & closing remarks**	**Ian Ellerington,** **Head of Innovation Delivery, DECC** **& Facilitators**
15.00	***Networking break***	
	1-to-1 discussion with DECC staff will be available during the breakout session times.	

Our criteria for funding innovation

- Innovation support will be provided where:
  - the innovation will significantly contribute to the achievement of DECC's energy and climate policy goals;
  - there is clear evidence that the innovation need that would otherwise be unmet, i.e. where there are market failures or barriers that prevent/limit private sector investors;
  - other actors (UK or international) have not, or are unlikely to, provide sufficient support;
  - the potential benefits can be shown to be likely to exceed the costs;
  - **Support is legal under EU law (procurement or grant mechanisms)**
- The focus of the portfolio will be primarily on the later innovation stages i.e. late stage development and partial and full scale demonstration (TRLs 5/6 to 8/9). The portfolio may however in exceptional circumstances fund innovation at the earlier stages, where other actors cannot or will not do so. It may also collaborate with other funders who are active at earlier TRLs, while seeking to maintain its own focus on the later TRLs.

DECC Innovation Support for Energy Storage – High Level Aims

- **Aim:** To help accelerate the commercialisation of storage technologies.

- Key outcomes are expected to include:
  - Large-scale demonstration of energy storage technologies;
  - Component level research to support cost reduction in energy storage systems;
  - Feasibility studies into operational issues/deployment of energy storage technologies;
  - Clearer understanding of the further scope for cost reduction in energy storage technologies;
  - Reduced risks and costs for delivery of energy storage – leading to increased commercial interest.;
  - Increased confidence in energy storage systems and the scope for their deployment.

DEPARTMENT OF ENERGY & CLIMATE CHANGE

Sally Fenton
Innovation Delivery, DECC
(Energy Storage & Offshore Wind Projects)

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Overview of the Energy Storage Competitions and Application Process

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Energy Storage Component Research & Feasibility Study Scheme: Overview

- The scheme can support:
  - Component level research to improve components or materials in energy storage systems;
  - Development of technologies to enable deployment and integration of storage systems into the UK electricity networks;
  - System-level feasibility studies to investigate storage system deployment systems and operational issues,

  - All projects must address energy storage systems which are intended to meet **grid-scale storage needs in the UK electricity networks**.

Component Research Scheme: Overview

- **Up to £3m capital** expenditure is available in total for this call and DECC expects to award grants of between £200k - £1m for individual projects.

- Grant funding will be awarded on a **joint funding basis**; i.e. part grant; part private sector.

- **Grants will be awarded on a competitive basis**; using value for money assessment based on the **5 selection criteria** set out in the guidance notes and application form.

- The grant will be subject to the **conditions of the EU General Block Exemption Regulation**.

- Funding under this scheme is **not available beyond 31 March 2015**.

Component Research Scheme: Technology Scope & Stage of Development

- **No restrictions on type of technology** to be deployed in the proposed energy storage system.
- Proposed project must contribute to **cost reduction; more efficient deployment and/or wider deployment of energy storage systems** which can meet a range of grid-scale storage needs in the UK electricity networks.

- **Technology readiness:** Projects supported by this scheme must fall within the EU definition of '**experimental development**' or '**industrial research**'. Broad descriptions – *check detailed definition in scheme Guidance Notes*.

- Must be for **energy storage systems where there is a realistic chance of future deployment** – and potential commercialisation of the innovation is one of the project selection criteria.

Component Research Scheme: Eligible Costs

- Grants will be awarded under the terms of the EU General Block Exemption Regulation[1] (GBER), within the **Experimental Development or Industrial Research** categories defined in the GBER.
- This limits total public funding to:

Size of Enterprise	Maximum amount of public sector (grant) as proportion of total eligible project costs	
Sole enterprise:	Experimental development	Industrial research
Small	45%	70%
Medium	35%	65%
Large	25%	50%
Public funding may be increased by a further 15%, up to a maximum of 80%, if the project involves effective collaboration between at least two independent undertakings – subject to certain conditions for collaboration.		

1. http://ec.europa.eu/competition/state_aid/reform/gber_final_en.pdf

Component Research Scheme: Other Funding Requirements:

- DECC will only provide the grant to cover **eligible capital costs** incurred and defrayed in the period between acceptance of the DECC grant and the deadline specified in the grant offer letter for completion of the project. *See scheme Guidance Notes for detailed list of eligible costs.*

- Funding is **not available beyond 31 March 2015** (projects may continue for up to one year beyond this date but all grant-supported expenditure must be incurred by 31 March 2015).

- DECC may **prioritise projects with majority of planned spend in the 2013-14 financial year** (1 April 2013 - 31 March 2014).

- Scheme is open to non-UK organisations but the majority of the project work (in terms of eligible costs) must be carried out in the UK.

Component Research Scheme: Evaluation Criteria

- Applications will go through a two stage application process . The first stage will confirm that applications meet the **Requirements on Applicants and the Project Eligibility Criteria** (*see Guidance Notes for detail*).

- Eligibility Criteria include:
  - Innovation & technology readiness;
  - Project status & locations;
  - Additionality/incentive effect;
  - Aid intensity & overall grant size;
  - Permissions & consents.

Please check eligibility criteria carefully before embarking on the application form!

Component Research Scheme: Evaluation Criteria

- The second stage will determine the expected overall value for money of the proposed project by assessing it against the following **five selection criteria** (*see Guidance Notes for further details*):
  - Expected contribution to cost reduction or deployment of energy storage systems (30% weighting);
  - Likelihood of successful project delivery (20% weighting);
  - Project materiality and financing - leverage and affordability (20% weighting);
  - Likelihood of subsequent commercial availability and success of the innovation (20% weighting);
  - Knowledge sharing & contribution of the project to wider understanding of energy storage systems (10% weighting).

Component Research Scheme: Application Timeline

Activity:	Dates:	
Call for Proposals issued	19th October 2012	
	Assessment Tranche 1:	**Assessment Tranche 2:**
Optional: Notify DECC of intention to apply	23rd November 2012	8th March 2013
Closing date for applications	12pm on 6th December 2012	12pm on 27th March 2013
Assessment process & clarification of bid information	From mid-December 2012	From early April 2013
Due diligence, detailed negotiation and financial close	From early February 2013	From early May 2013
Grant offers awarded	From early March 2013	From May 2013

Applications will be assessed in two tranches, depending on when bids are received. Applicants should be aware that if there is very high funding uptake for project submitted in the first tranche, less funding may be available for projects submitted for the second tranche assessment..

Energy Storage Technology Demonstration Competition: Overview

- This competition seeks to procure:
  - Development and demonstration of **innovative energy storage technologies** which can address a range of **grid-scale electricity network storage needs in the UK** (such as balancing supply and demand and managing network congestion) in the run up to 2020 and beyond.
  - Funding is available for **pre-commercial R&D activities only** – funding is not available for commercial development activities, such as quantity production.
  - **Broad technology scope**: not restricted to any specific technology – but focus on **innovative technologies** (not seen in existing storage solutions);
  - Successful bidders will be asked to **demonstrate their storage technology at sufficient scale and under sufficiently real conditions** to be able to show that the proposed technology could address grid-scale storage needs for the UK electricity networks. *See Guidance Notes for possible approaches for demonstrating storage technologies.*

Technology Demonstration Competition: Overview

- **Up to £17m capital** expenditure is available in total for this call. DECC expects to award pre-commercial procurement contracts of between £500k - £12m for individual projects.

- **Contracts will be awarded on a competitive basis**; using value for money assessment based on the **6 selection criteria** set out in the guidance notes.

- Project costs quoted by suppliers must reflect actual costs at a fair market price and should not include profit. *See Guidance Notes for detailed list of eligible costs.*

- Funding under this scheme is **not available beyond 31 March 2015**.

- The Competition is **open to any organisation** (not just UK organisations)

Technology Demonstration Competition: Overview

- The competition will run in two phases, with Phase 1 contracts for system and demonstrator project design studies expected to be awarded in February 2013.

- Bidders who are judged to have submitted Phase 1 design studies which offer the best value for money and best fit with the competition's aims will be invited to participate in the development and demonstration phase (Phase 2) in Spring 2013.

- Delivery and monitoring of the Phase 2 demonstration projects is expected to take place over the period from June 2013 to end March 2015.

- ***N.B. Bidders can not apply for Phase 2 only – all bids must be received by the competition deadline of 13 December 2012 to be considered.***

Technology Demonstration Competition: Risk-Benefit Sharing

- Pre-commercial procurement involves a high degree of **risk-benefit sharing**:
  - **Suppliers will retain intellectual property** generated from the project and will be expected to identify and protect patentable knowledge within 3 years of its creation;
  - Costs associated with securing IP arising from the project must be covered by the suppliers;
  - As part of any contract awarded under this competition, **DECC will expect to be able to use and share the results and outcomes** of the R&D;
  - Applicants will be expected to **offer a price reduction** compared to the price applicable in the case of DECC retaining IPR exclusively for its own use.

Technology Demonstration Competition: Evaluation Criteria

- Applications will go through a two stage application process . The first stage will confirm that applications meet the Eligibility Criteria (*see Guidance Notes for detail*).

- **Eligibility Criteria** include:
  - Innovation & technology readiness;
  - Understanding operational storage needs & constraints;
  - Deployment and scaleability;
  - Proposal price (fair market value & price reduction included);
  - Applicants are financial viable and do not meet any DECC grounds for mandatory rejection.

Please check eligibility criteria carefully before embarking on the application form!

Technology Demonstration Competition: Evaluation Criteria

- The second stage will determine the expected overall value for money of the proposed project by assessing it against the following **six selection criteria** (*see Guidance Notes for further details*):
  - Expected technical performance & ability to meet a range of UK grid-scale storage needs (20% weighting);
  - Expected costs and lifetime (20% weighting);
  - Likelihood of successful project delivery (20%);
  - Project materiality and financing - leverage and affordability (15% weighting);
  - Likelihood of subsequent commercial availability and success of the innovation (15% weighting);
  - Knowledge sharing & contribution of the project to wider understanding of energy storage systems (10% weighting).

Application Timeline

Activity	Dates
Call for Proposals issued	19th October 2012
Closing date for applications	12pm on 16th December 2012
Phase 1:	
Phase 1 begins	February 2013
Deadline for Phase 1 design & project plan report	April 2013
Phase 2:	
Successful Phase 1 participants invited to tender	Early May 2013
Phase 2 delivery commences	June 2013
Deadline for Phase 2 final report	31st March 2015

Both Competitions: Application Process

- Please read guidance notes and application form carefully before completing and answer ALL questions asked.

- Don't miss the deadlines!!

- **Email digital copy to:** innovation@decc.gsi.gov.uk
  (maximum email size is **10MB** - if needed break submission down into smaller parts.

- 1 signed hard copy to be sent to DECC within 10 working days of submitting your electronic application.

Both Competitions: Other Requirements

Publication of Results:

(whilst maintaining confidentiality of commercially sensitive information)

i. After issuing the grant or contract: high level information about the proposed project, its aims and outcomes, including contract value or size of DECC grant.

ii. Throughout project delivery

- Summary of funded activities completed and the outcomes achieved;

Reporting

- Reporting to track project progress and ensure payments are made according to a schedule of milestones.

Project evaluation

- Evaluation of schemes during and for several years after final contract or grant payments to assess whether funds have been used effectively.

KEEP UP-TO-DATE ONLINE @

https://connect.innovateuk.org/web/energy-storage/overview

https://connect.innovateuk.org/web/decc-energy-storage-scheme