



Department for
Business, Energy
& Industrial Strategy

DOMESTIC DEMAND- SIDE RESPONSE (DSR) COMPETITION

Competition Guidance Notes



November 2017

DOMESTIC DSR COMPETITION

Competition Guidance Notes

Domestic DSR Competition

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BEIS Domestic DSR Competition - Rules and Guidance

1. The Domestic DSR Competition – Overview

In the BEIS Domestic DSR Competition, project teams can apply for a share of up to £7.75 million to identify and test innovative approaches to DSR in domestic applications.

The 2017 BEIS Rapid Evidence Assessment (REA)¹ on ‘Realising the Potential of DSR to 2025’ which focuses on small energy users concluded that successful DSR business models target high electricity load devices, such as electric storage heaters with estimated domestic installed UK demand of 18 GW (125 GWh) across approximately 2 million households. This represents an established source of shiftable load in the UK and tapping into a proportion of this load could secure significant flexibility. In addition to **storage heaters**, there are other areas that may see a rise in domestic consumption in the future which could increase the need and opportunities for DSR. For example, **decarbonisation of heat** could result in electrifying heating via heat pumps, and increased use of electric hot water heaters and cookers that will increase the electric load per home. Without managed ‘smart charging’, deployment of **electric vehicles** will lead to additional load which is likely to be strongly coincident with the evening electricity peak. In future, micro-CHP systems or fuel cells could also provide flexibility from households.

The aim of this Competition is to identify and demonstrate controllable, flexible demand in real domestic environments which can be replicated at significant scale in identical or similar applications. The focus of the Competition is on identifying and testing **novel usage of flexible demand** which do not currently participate in DSR, largely using the application and integration of existing DSR and other IT or communication technologies - rather than on the development of new DSR consumer products such as ‘smart appliances’. The Competition is interested in projects which demonstrate control of existing domestic loads and also in projects which explore control of domestic loads which could offer substantial load flexibility in the future. Projects that demonstrate novel business models that engage consumers are also encouraged.

The Competition is technology neutral, i.e. it is not restricted to particular DSR products or technologies. However, a ‘balanced portfolio’ approach will be used to ensure that, if practical (i.e. if applications are of sufficient quality), the selected projects cover a range of different load types and are not all focused on one type of domestic load.

¹ Realising the Potential of Demand-Side Response to 2025 - The Rapid Evidence Assessment (REA) (November 2017): <https://www.gov.uk/guidance/funding-for-innovative-smart-energy-systems>

This Competition will provide innovation support in two phases:

1. **Phase 1 - Individual feasibility studies** (total budget of up to £750,000; up to £30,000 grant for each study): grants will be awarded to the selected project teams to carry out feasibility studies which will identify the potential for DSR in a domestic setting and will set out detailed project plans for testing the proposed demand flexibility in a Phase 2 DSR Demonstration. Project teams are likely to include: the representatives of community with the domestic DSR potential; an aggregator or electricity supplier; and the technology supplier(s) who can implement the DSR solution. The project team will also be required to describe (as part of the project plan) how they will demonstrate and disseminate the proposed DSR solution to other similar settings with similar demand flexibility opportunities.
2. **Phase 2 - DSR demonstration and dissemination projects** (total budget of up to £7 million; up to £1 million grant for each demonstration project): the most promising projects from the feasibility studies submitted in Phase 1 will be funded to enable the proposed DSR solution to be implemented and tested. A key requirement from the demonstration phase is that, once successfully implemented, the DSR solution must be demonstrated and disseminated to communities with similar opportunities for implementing demand flexibility – to help promote further DSR deployment. Dissemination material is expected to be detailed and to include operational information about the DSR solution used.

The Phase 2 demonstration projects will be selected based on the feasibility studies submitted for Phase 1 – no completely new applicants will be able to enter the Competition at Phase 2, although some variation in project partners may be permitted. In addition, where activities are similar or complementary, Phase 1 participants will be encouraged to work together on solutions in Phase 2.

2. Competition Context and Objectives

This Competition is funded by the BEIS energy innovation programme (2016-2021). The aim of the BEIS innovation programme is to reduce the UK's carbon emissions and the cost of decarbonisation by accelerating the commercialisation of innovative clean energy technologies and processes into the mid-2020s.

A number of recent reports and analysis have concluded that using smarter networks and different flexibility solutions in the energy system - such as energy storage, DSR, demand reduction including energy efficiency and interconnection - can secure savings for the UK, particularly in the medium to long term². Innovation can help to identify, develop and de-risk alternative 'smart energy solutions' which can bring flexibility and integration to our energy systems in the future in a way which is more cost-effective and supports decarbonisation, while still providing the necessary security of supply (dealing with the 'energy trilemma').

DSR is expected to play a key role within the future electricity system. DSR can be used to reduce demand from the grid at peak periods and to increase demand at times of plentiful and cost effective low carbon generation.

This Competition, described in Action 2.11 of the Smart Systems and Flexibility Plan³, focuses on identifying and testing innovative approaches to DSR in domestic applications. The aim is to identify and demonstrate controllable, flexible demand in real domestic environments which can be replicated at significant scale in identical or similar applications. The focus of the Competition is on identifying and testing novel and secure usage of flexible demand, largely using the application and integration of existing DSR and other IT or communication technologies - rather than on the development of new DSR products. The Competition is technology neutral, i.e. it will not be restricted to particular DSR products or technologies. In line with Action 2.10 of the same plan, the competition will seek to demonstrate that cyber security risks are effectively understood and acted upon.

The specific objectives for the Competition are to:

1. Secure earlier and greater levels of deployment of DSR applications in domestic environments.
2. Provide more detailed, robust data about the likely extent of and potential for DSR deployment in domestic environments in the UK and the savings which could be secured from domestic DSR in the UK.
3. Create greater awareness of the potential benefits and scope for deploying DSR among domestic users.
4. Create greater awareness of the potential benefits to be secured from Smart Meters among domestic users.

² The UK could save £17-40 bn across the electricity system from now to 2050 by deploying flexibility technologies:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/568982/An_analysis_of_electricity_flexibility_for_Great_Britain.pdf

³ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/633442/upgrading-our-energy-system-july-2017.pdf

5. Identify effective business models for capacity-based services which are potentially attractive to residential end-users who can adjust their energy consumption.
6. Strengthen UK supply chains for DSR applications and deployment.
7. Encourage collaboration and partnership between DSR users, technology developers and academic or other supply chain partners; and involve supply chain partners in finding innovative solutions.

3. Competition Timetable, Application and Assessment Process

The Competition funding will be awarded in two phases:

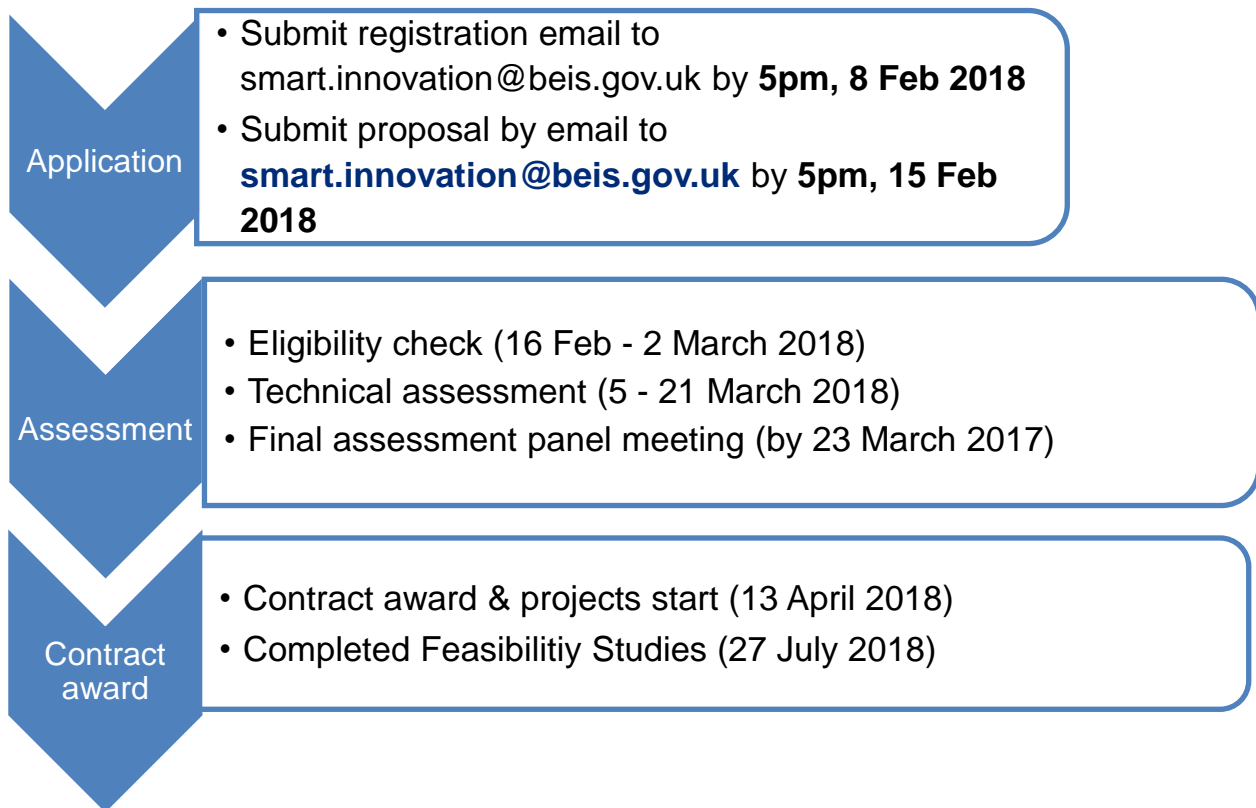
Phase 1 Feasibility phase (total budget of up to £750,000; up to £30,000 grant for each study): this phase will provide an opportunity for successful applicants to demonstrate the feasibility of their proposed DSR technology. The deliverable will be a feasibility study which will include: details of the proposed controllable demand; quantitative details of the potential size of the total UK demand which can be controlled in a similar way; a detailed project plan setting out how and where the demand can be demonstrated and describing the proposed dissemination of the project, including to organisations with similar DSR opportunities.

Phase 2 Demonstration phase (total budget of up to £7 million; up to £1 million grant for each demonstration project): this phase will result in the implementation and demonstration of a DSR solution in an operational, real-world environment; and dissemination events and materials (e.g. presentations; workshops; online material; conference displays) for that DSR solution. **The Phase 2 demonstration projects will be selected based on the feasibility studies submitted for Phase 1** – no completely new applicants will be able to enter the Competition at Phase 2, although some variation in project partners may be permitted.

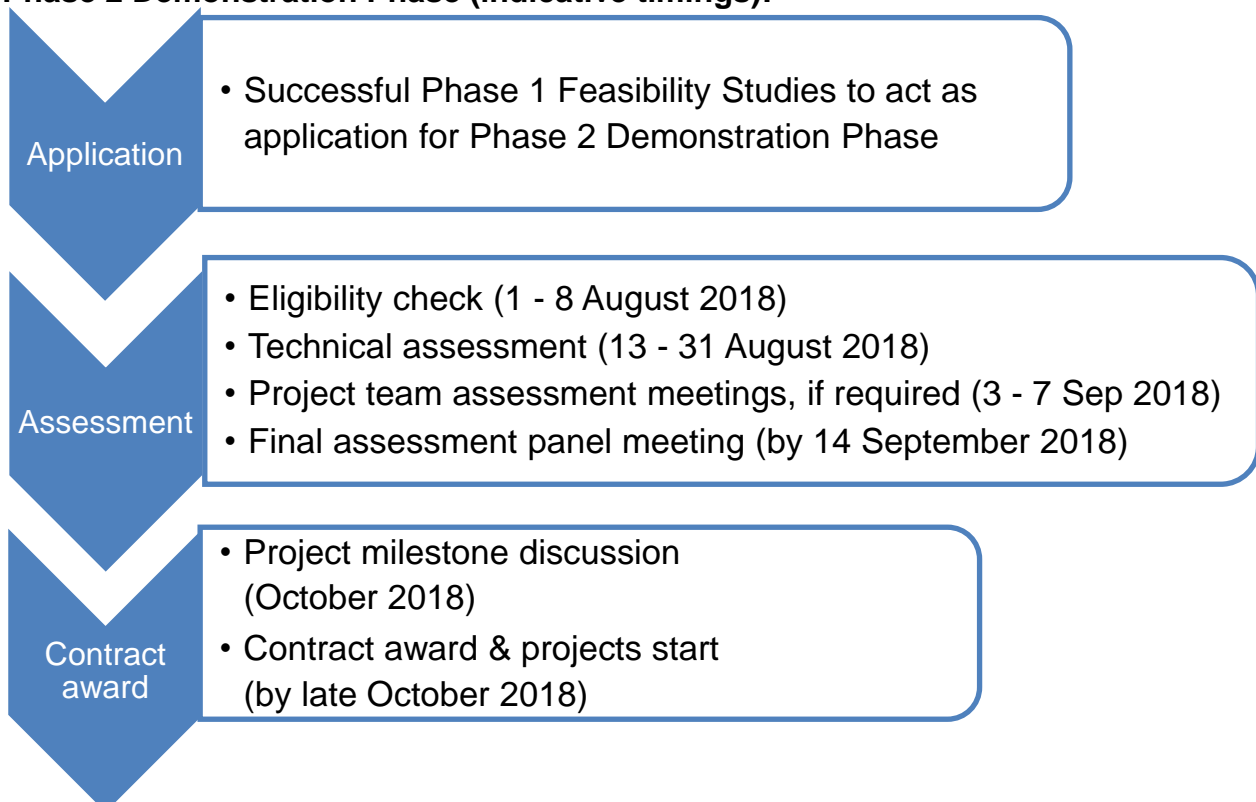
The key dates applicable to the Domestic DSR Competition are:

Information Day (Save the Date!): 4 Dec 2017 in London with Webinar option:
<https://dsr-briefing.eventbrite.co.uk>

Phase 1 Feasibility Phase:



Phase 2 Demonstration Phase (indicative timings):



As outlined in the diagram above, in both Phase 1 and Phase 2, the competition process will be undertaken in three key stages: application, assessment and grant award.

Stage 1: Application

Bidders are asked to submit a Registration Email and to complete and submit a Competition application form with supporting information explaining their proposed DSR approach and outlining their proposed demonstration project for Phase 2. The notes below explain the details of the application process:

- **Registration Email:** Applicants should submit a registration email to smart.innovation@beis.gov.uk using the title 'Domestic DSR Competition' in the email subject and containing the following information: the name of the lead project organisation (project co-ordinator); the project title; and confirmation of intention to submit an application. The deadline for submitting registration emails is:
 - **Registration deadline is 5pm, 8 Feb 2018.**
- **BEIS Confirmation:** Within a week of receipt of the Registration Email, BEIS will issue a confirmation email to the applicant with an individual reference number. Please use this reference number to submit any subsequent application or when submitting any questions about the Competition.
- **Questions about the Competition:** If you have read the guidance notes and any online FAQs and still have questions, please submit any queries regarding the competition process to the following email address: smart.innovation@beis.gov.uk. All questions should be submitted by the registration deadline: 8 February 2018; questions submitted after this date may not be answered. We will provide online replies (<https://www.gov.uk/guidance/funding-for-innovative-smart-energy-systems>) to any questions which arise before 8 February and which, in our judgement, are of material significance. All bidders should take these replies into consideration when preparing their own bids and we will evaluate bids on the assumption that they have done so.
- **Submission of Proposal:** The full proposal for the Competition must be submitted by the deadline:
 - **Phase 1 proposal submission deadline is 5pm, 15 Feb 2018.**
 - **File format and size:** Completed Phase 1 application forms, the completed finance templates and any supporting information should be submitted electronically. The completed finance form should be submitted as a spreadsheet (.xls) file; the completed application form should be submitted in pdf format.

The proposal documents must be emailed to smart.innovation@beis.gov.uk with 'Domestic DSR Competition (name of lead applicant)' in the subject line.

The maximum size email you can send is 10 MB. If your application is larger than 10MB, please break the submission down into smaller sizes and ensure the subject line of each additional email takes the following format 'Domestic DSR Competition (name of lead applicant) – email x of y'.

- **Submission Content:** Each Phase 1 proposal must include the following documents:
 - Completed application form, including signed declarations, which can be viewed in Annex 3 of this Guidance document (the application form is a separate word document which can be downloaded from <https://www.gov.uk/guidance/energy-innovation> or requested from smart.innovation@beis.gov.uk) ;
 - Completed pricing schedule/finance form (this is a separate spreadsheet which can be downloaded from <https://www.gov.uk/guidance/energy-innovation> or requested from smart.innovation@beis.gov.uk);
 - Completed high level project Gantt chart or project plan for the Phase 1 Feasibility Study;
 - Optional: additional letters of support or other supporting information can also be submitted **where they add substantive information** to the proposal; however, you should not assume that any additional information will be cross-referenced or reviewed as part of the selection process – for example, it may only be used to help finalise the assessment of projects which receive very similar assessment scores. The application form should include a list of any supporting documents.

You should endeavour to answer all of the questions on the application in full. Incomplete applications and any containing incorrect information will very likely be rejected although BEIS may, at its discretion, request clarification or additional data before making a final decision.

Any applications or supporting documentation received after the application deadline will not be considered.

- **Submission Costs:** You will not be entitled to claim from the Department any costs or expenses that you may incur in preparing your bid, whether or not your proposal is successful.
- **Phase 2 Submissions:** For Phase 2, the completed Phase 1 Feasibility Studies will be used to assess and select the projects to be funded; successful Phase 1 applicants will be given further details about the format for the Phase 1 Feasibility Study when Phase 1 grants are awarded. **No completely new project teams can apply for funding at Phase 2.**

Stage 2: Assessment

Applications will initially be assessed against the Eligibility Criteria in Section 4.

Applications which fail the Eligibility Criteria will not be assessed further, so it is essential to ensure that your project meets these criteria before you submit your application.

The eligible projects will be assessed against the assessment criteria described in Section 7 to determine an overall ranking list which will be used to allocate the funding for the Competition. To be eligible to receive funding, a project must also be allocated a minimum total score of 60% against these assessment criteria.

After the assessment stage, all applicants will receive a short summary of key feedback regarding their applications irrespective of whether they are successful or not. BEIS aims to have provided all feedback to applicants within two months of the final funding decision. However, applicants are asked to remember that BEIS may receive a significant number of applications and the timing of the release of feedback will be at BEIS's discretion.

Phase 2: the Feasibility Studies completed for Phase 1 will be assessed to decide which projects will progress to Phase 2. In addition, as part of the assessment process for Phase 2, BEIS may request applicants to attend assessment meetings in London, currently planned for the week commencing 3 September 2018.

BEIS's decision on project funding is final.

Stage 3: Grant Award

Prior to the issue of the formal grant offer, there will be an opportunity to discuss the Grant Offer Letter at a meeting with an official from BEIS who will explain the conditions of the letter and respond to any queries which the applicant may have at this stage. BEIS officials will also discuss and finalise the formal project milestones with the project team before issue of the formal grant offer. BEIS may also involve an external technical adviser in these milestone discussions and in subsequent monitoring of the project.

In the case of projects which are delivered by project consortia, the lead company (project co-ordinator) will be the recipient of the grant offer letter and will be responsible for managing payment of grant funding to the other project partners. For consortium projects, funding will not be provided by BEIS until a consortium agreement for the project has been finalised and signed by all the members of the project consortium.

4. Eligibility for Funding

4.1 Competition Eligibility Criteria

To be eligible for funding, proposed projects must meet all of the following eligibility criteria:

1) Innovation and technology readiness

This Competition will support proposals that can develop, demonstrate and trial innovative domestic DSR technologies/techniques within the timescales indicated. It is intended to identify replicable DSR applications in domestic environments – rather than to support the development of specific DSR technologies. Where possible, project teams will be expected to use or adapt existing hardware and software that is already commercially available. Therefore, BEIS would expect to fund projects which will result in a DSR system which is at Technology Readiness Levels (TRLs) 6 to 8 by the end of the demonstration project. Activity at an earlier Technology Readiness may be carried out within the project in order to reach the target TRLs (6 to 8) by the project end. Further information on TRLs can be found at Annex 1 – Technology Readiness Levels (TRLs).

2) Technology scope

The Competition is interested in a broad range of DSR services providing flexibility over a range of timescales and response times (e.g. not just frequency response). The focus of the Competition is on **projects which will demonstrate controllable, flexible demand in real domestic environments which can be replicated at significant scale in identical or similar applications**.

The Competition is interested in projects which demonstrate control of existing domestic loads and also in projects which explore control of domestic loads which could offer substantial load flexibility in the future (such as micro CHP). Projects that demonstrate novel business models that engage consumers are also encouraged.

Exclusions: Funding will not be provided for:

- the development of smart meters or related equipment;
- the development of 'smart' or demand-controlled domestic appliances or other consumer goods;
- new generation capacity or DSR implemented through generation (e.g. use of back up diesel generators or installation of new renewable generation capacity).

In addition, funding is unlikely to be provided for:

- a project proposed by an organisation which is already active in DSR (e.g. one which has secured a Capacity Market funding or is involved in National Grid's 'turn down' programme) – unless the project is for a novel DSR application for which the organisation cannot already secure payment;

- a project proposing a DSR application which is already used commercially – especially where it is in wide commercial use in domestic settings (in the UK or elsewhere);
- new energy storage facilities (projects may use energy storage as part of the overall DSR solution but use of Competition funding to purchase large amounts of new energy storage capacity will not be permitted).

3) Project activity

To be eligible for funding, the proposed demonstration projects must be made up of **industrial research or experimental development**, as defined within the EU General Block Exemption Regulation⁴ (see section 5 below). Projects which involve both industrial research and experimental development are eligible but the different types of project work involved must be clearly identified and costed from the outset because different types of project activity are eligible for different levels of grant funding. Subsequent changes to project activity type once a project is underway may not be possible and may lead to a reduction in grant funding allocation (no increase in grant funding will be possible).

Grants will be awarded to secure pre-commercial development, demonstration and dissemination activities (predominantly TRL 6 to 8), including detailed design of solutions, prototyping, field testing, trials and demonstrations and dissemination of knowledge obtained from the demonstration activity. The specific activities expected in each phase of the Competition are outlined below:

Phase 1, Feasibility study – The activity here will be development of a detailed feasibility study which will include: details of the proposed controllable demand; quantitative details of the potential size of the total UK demand which can be controlled in a similar way; detailed project plan setting out how the demand can be demonstrated and describing the proposed dissemination of the project to organisation with similar DSR opportunities.

Phase 2, Demonstration project and dissemination – The main activities in this phase will be the development, installation and demonstration of a DSR solution which reliably, safely and cost-effectively controls electricity demand in an operational environment; and dissemination events and materials (e.g. presentations; conference displays) for that DSR solution.

4) Project status

BEIS is unable to fund retrospective work on projects.

⁴ http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en

5) Additionality

Projects can only be funded where evidence can be provided that innovation would not be taken forward (or would be taken forward at a much slower rate) without public sector funding.

6) Grant size

Funding will be awarded in this competition in 2 phases:

- a) Grant Phase 1 – Feasibility study development (up to £30k per feasibility study, expected to take 10 weeks). The deliverable will be a feasibility study which will include: details of the proposed controllable demand; quantitative details of the potential size of the total UK demand which can be controlled in a similar way; detailed project plan setting out how the demand can be demonstrated and describing the proposed dissemination of the project to organisations with similar DSR opportunities.
- b) Grant Phase 2 – Demonstration phase (£250k - £1m per demonstration project; and up to £50k ring-fenced for dissemination to other communities with similar demand flexibility opportunities). The deliverables in each project will be implementation and demonstration of a DSR solution in an operational environment; and dissemination events and materials (e.g. presentations; conference displays) for that DSR solution.

7) Aid intensity (match funding) and eligible project costs

The funding levels applied for must be consistent with the relevant GBER aid intensity levels (including consideration of the cumulative effect of other forms of state aid).

Section 5 sets out the maximum aid intensity limits for the Competition but applicants should be aware that grant awards may be lower than the maximum limit. The GBER rules on aid intensity require applicants to have private funding in place to cover the balance of the eligible project costs. Such funding may come from a company's own resources or external private sector investors, but must not include funding attributable to any public authority or EU institution.

The full list of eligible project costs is set out in Annex 2.

8) Project location

The activities for any feasibility study or demonstration project procured in this Competition must be conducted largely in the UK (and the majority of the eligible project costs must be incurred in the UK).

9) Project end-date

Phase 1 Feasibility Studies should be completed by 27 July 2018. Phase 2 Demonstration Projects must be completed – including all reporting requirements – by 31 December 2020 at the latest: a project-specific end date will be agreed at the outset for each funded project and confirmed in the project grant.

10) Applicants and project team make-up

Both phases of the Competition are expected to be delivered by a project team or consortium not by sole organisations. A single project application must be submitted by the lead project member – the project co-ordinator.

Successful project teams for this Competition are likely to include:

- an organisation in the UK representing the potential controllable domestic electricity load (this could be a business, academic, public, third sector or community organisation);
- an aggregator or electricity supplier who can advise on potential market routes (current or future);
- technology supplier(s) who can implement the DSR solution; and
- an organisation who can lead the dissemination and knowledge transfer activity (this could be an existing member of the team or a new partner dedicated to this activity).

Members of the project team can be:

- UK-registered private sector companies: both SMEs (as defined by the EU⁵) and large enterprises can apply for funding as part of a consortium with other private sector companies or in a consortium with academic, research, public, third sector or community organisations;
- UK academic, research, public, third sector or community organisations must work as part of a project consortium with private sector organisations – they cannot be sole applicants to this competition;
- In Phase 2, the majority of the project costs must be incurred by private sector partners.

The project team co-ordinator can be a private sector company, academic, research, public, third sector or community organisation as long as they have the necessary skills and capacity to effectively lead the proposed demonstration project.

The applicant or the project team member hosting the demonstration project is expected to be users of domestic (profile class 1-2) meters.

The assessment process will prioritise DSR applications where there is the largest potential for controllable demand (in response to external signals in order to reduce peak power demands or to increase demand) and the greatest potential for replicating that controllable demand.

⁵ http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en

Exclusions:

- Businesses which already have demand response contracts in place for the same or a similar DSR application or are already working directly with, the DNOs, TSO (National Grid) or an aggregator on domestic demand response programmes for the same or a similar DSR application.

4.2 General conditions

Applicants(s) must be financially viable and undertakings must not be subject to an outstanding order from the Commission to recover incompatible aid already granted or in financial difficulty (e.g. seeking rescue and restructuring aid).

In addition, Annex 3 lists a number of questions relating to 'reasons for exclusion' including bribery, corruption or fraud and BEIS would not expect to provide grant funding to companies which cannot answer 'No' to all of these questions.

5. Funding levels and State Aid requirements

This Competition will be operated in accordance with the terms of the revised General Block Exemption Regulation governing State Aid (Commission Regulation (EU) No. 651/2014), which came into force on 1st July 2014 (GBER) – specifically Article 25 (Aid for research and development projects)⁶.

5.1 Grant intensity guidelines

The Competition will be delivered as a grant programme within the terms of the GBER, specifically, Article 25 (Aid for research and development projects) will apply and this will define the type of innovation activities which can be funded and will limit the amount of funding which can be provided to each participant in a funded project.

The Competition will fund feasibility studies (for Phase 1) and industrial research and experimental development (for Phase 2) as defined in the GBER and outlined below:

Feasibility Study means “the evaluation and analysis of the potential of a project, which aims at supporting the process of decision-making by objectively and rationally uncovering its strengths and weaknesses, opportunities and threats, as well as identifying the resources required to carry it through and ultimately its prospects for success”;

Industrial Research means “the planned research or critical investigation aimed at the acquisition of new knowledge and skills for developing new products, processes or services or for bringing about a significant improvement in existing products, processes or services. It comprises the creation of components parts of complex systems, and may include the construction of prototypes in a laboratory environment or in an environment with simulated interfaces to existing systems as well as of pilot lines, when necessary for the industrial research and notably for generic technology validation”;

Experimental Development means “acquiring, combining, shaping and using existing scientific, technological, business and other relevant knowledge and skills with the aim of developing new or improved products, processes or services. This may also include, for example, activities aiming at the conceptual definition, planning and documentation of new products, processes or services. Experimental development may comprise prototyping, demonstrating, piloting, testing and validation of new or improved products, processes or services in environments representative of real life operating conditions where the primary objective is to make further technical improvements on products, processes or services that are not substantially set. This may include the development of a commercially usable prototype or pilot which is necessarily the final commercial product and which is too expensive to produce for it to be used only for demonstration and validation purposes. Experimental development does not include routine or periodic changes made to existing products, production lines, manufacturing processes, services and other operations in progress, even if those changes may represent improvements”.

The funding levels applied for must be consistent with the appropriate GBER aid intensity levels in Article 25 which are summarised in Table 1 - although these are maximum

⁶ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0651&from=EN>.

spending levels and BEIS may decide to provide less than the maximum in order to strengthen leverage and value for money, depending on the specific project requirements:

Table 1: Maximum public funding for projects in the Domestic DSR Competition

Research Category	Type & size of applicant	Maximum amount of public sector funding towards eligible Project Costs
Feasibility Study	Small enterprise	70%
	Medium enterprise	60%
	Large enterprise	50%
Industrial Research - Companies in Collaborations (i.e. consortium made up of either several businesses, including at least one SME; or business(es) and at least one research organisation) Note: Certain conditions must be fulfilled for collaboration (See section 5.3 below & Article 25(6) of the Block Exemption ⁷)	Small enterprise	80%
	Medium enterprise	75%
	Large enterprise	65%
Experimental Development - Companies in Collaborations (i.e. consortium made up of either several businesses, including at least one SME; or business(es) and at least one research organisation) Note: Certain conditions must be fulfilled for collaboration (See Article 25(6) of the Block Exemption)	Small enterprise	60%
	Medium enterprise	50%
	Large enterprise	40%
Industrial Research or Experimental Development – Universities or Research Organisations in Collaborations	Universities or research organisations (defined as collaborative fundamental research projects in GBER Article 2 (84)) may be entitled to receive full funding for their eligible project costs as long as they are not undertaking any economic activities in the project. University and research organisations should confirm the funding position with BEIS prior to application.	

Note: State Aid compliance is a legal requirement and the risk of non-compliance rests with the grant recipient⁸. It is therefore crucial that you address State Aid fully within the application, as any errors at this stage may result in BEIS being able only to offer a reduced level of funding or repayment of grant by applicants.

5.2 Public funding

When considering levels of aid intensity (described above in section 5.1), public funding includes the grant and all other funding from, or which is attributable to, other government

⁷ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0651&from=EN>

⁸ The UK's rights and obligations of EU membership, including compliance with State aid rules, continue to apply until the UK's exit from the EU has been completed, and therefore for this competition.

departments, UK public bodies, other Member States or the EU institutions. Such funding includes grants or other subsidies made available by those bodies or their agents or intermediaries (such as grant funded bodies).

In applying to this Competition, you must state if you are applying for, or expect to receive, any funding for your project from public authorities (in the UK or in other Member States) or the EU or its agencies. Any other public funding will be cumulated with BEIS funding to ensure that the public funding limit and the aid intensity levels are not exceeded for the project.

Whilst BEIS will check the information provided to try and ensure that applicants meet the requirements of State Aid, applicants should establish that they fall within the state aid rules before submitting applications. BEIS requires applicants to notify them of any change to their situations or circumstances during the project.

If there is a breach of State Aid regulations, for whatever reason, the European Commission requires repayment of any grant received, including interest, above that which was due. In this situation applicants will be required to repay any funding received. It is also important to ensure that the total grant funding for the project from public sources (including from the European Commission) does not exceed the relevant permitted GBER aid intensity levels.

As part of the assessment process, the added value and additionality of public funding will be tested. Applicants will need to demonstrate why public funding is required to deliver this project.

5.3 Collaborative projects

Under the GBER Article 25 regulation, additional public funding (up to 15%) can be awarded to participants in collaborative projects (not feasibility studies) as long as they meet one of the following conditions:

“(i) the project involves effective collaboration:

- between undertakings among which at least one is an SME, or is carried out in at least two Member States, or in a Member State and in a Contracting Party of the EEA Agreement, and no single undertaking bears more than 70% of the eligible costs, or
- between an undertaking and one or more research and knowledge-dissemination organisations, where the latter bear at least 10% of the eligible costs and have the right to publish their own research results;

(ii) the results of the project are widely disseminated through conferences, publication, open access repositories, or free or open source software.”

6. Project plans, finances and financial viability

6.1 Project Plans

Phase 1 Feasibility Studies should be completed by 27 July 2018. Phase 2 Demonstration Projects must be completed – including all reporting requirements – by 31 December 2020 at the latest: a project-specific end date will be agreed at the outset for each funded project and confirmed in the project grant.

All projects must submit a project plan (Gantt chart, or equivalent) as part of their application; the plan must detail the project timeline, the various work packages and the project milestones and deliverables.

6.2 Project Costs

In addition to completing the Application Form, all applicants must complete the Competition Finance Form detailing their expected expenditure and spending profile for the project. This Finance Form can be downloaded from <https://www.gov.uk/guidance/energy-innovation> or requested from smart.innovation@beis.gov.uk.

During the assessment of applications, the project costs and plans that are submitted as part of the application process will be fully assessed along with the answers to the questions on the application form to ensure they are what might be reasonably expected.

The eligibility of all costs under state aid rules and the financial viability of your organisation will be checked following the decision to select an applicant but before a formal offer is made. Being contacted for this information does not indicate either success or failure in the assessment process.

While BEIS understands that project costs are subject to change prior to agreeing a Grant Offer Letter and throughout the course of the project, we do expect the final version of the Finance Form to be our guide to project expenditure though delivery and costs should not vary significantly from this without prior agreement of the Department.

6.3 Financial viability checks

BEIS will undertake financial viability checks on all successful applicants. These will include looking at the latest independently audited accounts filed on the Companies House database.

Where a business is not required to file accounts with Companies House, other financial information may be requested to enable an appropriate financial viability review to be undertaken. We will be looking for evidence of your ability to resource the project appropriately, so the information we request will be focused on understanding how your business operates in this respect.

Before your project starts, BEIS will ask for evidence that you have the funding mechanisms in place to manage your cash flow across the life of your project. This could

include letters of credit or other such mechanisms. We do not expect you to have cash deposits to cover the entirety of your project at the start. However, if you do not complete your project due to cash flow problems that you could have anticipated and managed, we may request repayment of any grant already issued to you.

BEIS will not make payments in advance of need and typically makes grant payments in arrears on satisfactory completion of agreed milestones and outputs. BEIS understands, however, the difficulties which small businesses may face when financing this type of project. BEIS will explore cash flow issues with the applicant as part of developing the financial and milestone profile during the Grant Award process. BEIS will offer flexibility in terms of profiles and payments, within the confines of the requirements for use of public money within which it operates.

6.4 Grant Use

Grants provided will only cover eligible costs within the meaning of Article 25(3) of the General Block Exemption Regulation and as defined in Annex 2 (which includes additional lists of non-eligible costs).

7. Assessment Process and Criteria

7.1 Assessment Process

All applications will be considered initially against all the Competition eligibility criteria (described in section 4) and then against the assessment areas outlined below which are based on the Competition's objectives and the likelihood of effective project delivery.

The eligible projects will be assessed against the assessment criteria below to determine an overall ranking list which will be used to allocate the funding for the Competition. To be eligible to receive funding, a project must also be allocated a minimum total score of 60% against these assessment criteria.

BEIS may allocate less than the total budget depending on the quality of the applications. BEIS may also choose to allocate the budget to lower scoring projects in a different category to ensure support for a wider range of technologies.

The application form and guidance notes are designed to inform you about the types of information you should provide to BEIS in order for your proposal to be assessed. For the avoidance of doubt, the individual questions listed under the headings below do not constitute assessment sub-criteria, but are an indication of the factors that will be taken into account in assessing each aspect of a proposal.

The application form and these Guidance Notes are designed to inform you about the types of information you should provide to BEIS in order for your proposal to be assessed.

7.2 Assessment Criteria

Criterion 1	Innovative, cost-effective DSR approach
Weighting	20%
Guidance	<p>This criterion will be used to assess the approach to be used to control electricity in the proposed demonstration project and the cost of implementing the demand control solution.</p> <p>The criterion will look at the operational impact and total lifetime costs associated with implementing the proposed demand-control solution.</p> <p>The level of innovation in the proposed solution will also be considered – applicants will be asked to identify any similar existing DSR solutions and to explain the innovation in their approach.</p>
Scoring	Highest marks will be awarded to the most cost-effective, innovative DSR applications.

Criterion 2	Scale of potential cost-effective, controllable demand
Weighting	20%
Guidance	<p>This criterion will be used to assess the likely scale and scope of the market for the proposed DSR solution – i.e. how repeatable the proposed demand control approach is across domestic settings.</p> <p>Applicant teams will be required to provide an evidence-based, quantitative analysis of the total level of similar, controllable demand across the UK.</p> <p>Applicants will also be required to set out plans for the further development, commercialisation and exploitation of the innovation.</p>
Scoring	Highest marks will be awarded to applicants with DSR solutions which offer the greatest opportunity for replication across the UK and with the most robust plans for further exploitation of the proposed DSR solution.

Criterion 3	Contribution to DSR awareness, uptake and sector capacity building
Weighting	25%
Guidance	<p>This criterion will be used to assess the impact that the project will have on the wider awareness and uptake of domestic DSR in the UK.</p> <p>To assess this criterion, we will consider the project team's proposed dissemination and knowledge transfer activities – both the proposed scope and scale of knowledge transfer.</p> <p>This criterion will also be used to assess the impact that the project will have on the wider DSR industry and DSR-related supply chains in the UK. To assess this criterion, we will consider a number of factors, including, but not limited to:</p> <ul style="list-style-type: none"> • breadth of the project team; • the effective application of expertise from related industries to the DSR solutions; • innovative approach to solutions.
Scoring	Highest marks will be awarded to those project teams with the most robust and credible plans for dissemination and knowledge transfer. Projects potentially strengthening DSR supply chains in the UK will also receive high marks.

Criterion 4	Project financing
Weighting	15%
Guidance	<p>This criterion will be used to assess the:</p> <ul style="list-style-type: none"> - Phase 1 feasibility study project costs – to ensure that costs represent a fair market value and do not include profit for the project team members; - robustness of the Phase 1 feasibility study project costs – i.e. whether the proposed eligible project costs are realistic and justified in terms of the proposed project plans <u>and</u> sufficient to deliver the deliverables sought. <p>This criterion will also be used to secure initial outline information about the estimated costs of the proposed demonstration project.</p>
Scoring	<p>Highest marks will be awarded to projects that can demonstrate that the proposed public sector contribution to the eligible Phase 1 project costs:</p> <ul style="list-style-type: none"> • will represent good use of public funding by supporting projects whose costs are realistic and justified and are likely to secure the expected project aims and deliverables; • will represent good value for money and a fair balance of risk and benefits for BEIS, including no element of profit in the project costs.

Criterion 5	Project delivery
Weighting	20%
Guidance	<p>This criterion will be used to assess the expected effectiveness and efficiency of delivery of the feasibility study and will also consider the project team's potential capacity and capability to deliver a DSR demonstration project and associated dissemination activity. This will be assessed by looking at a range of factors, including:</p> <ul style="list-style-type: none"> • the capacity, experience, capability and diversity of the project team; • the completeness and quality of the proposed project delivery plans both for the feasibility study and for the proposed DSR demonstration project; • the appropriateness and realism of the project milestones and deliverables; • the project's access to the necessary skills and facilities; • the quality of risk assessment and contingency planning, including consideration of health and safety and other regulatory requirements.
Scoring	<p>Highest marks will be awarded to applicants that have taken all reasonable steps to maximise the likelihood of successfully delivering the</p>

	<p>projects aims (whilst recognising the innate technical risk in any innovation project). High scoring applications will, for example:</p> <ul style="list-style-type: none"> • present well thought-out, robust, credible, project plans; • show a realistic and robust approach to risk management; • have a strong and diverse delivery team with proven experience of successfully delivering comparable projects; • guarantee access to any necessary specialist facilities, operational knowledge and skills, or other resources required to execute the project; • show the strong commitment of all participating organisations; • not be heavily dependent for success on external factors beyond the project's direct control.
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7.3 Scoring Guidance

We will select projects that offer the best value for money based on their assessment against the assessment criteria outlined in section 7.2. The projects will be scored against these assessment criteria using the following scoring guidance set out in Table 3. Projects must score a minimum of 60% (based on total score) in order to be eligible for funding.

Table 3: Scoring Guidance

Score	Description
1	Not Satisfactory: Proposal contains significant shortcomings and does not meet the required standard
2	Partially Satisfactory: Proposal partially meets the required standard, with one or more moderate weaknesses or gaps
3	Satisfactory: Proposal mostly meets the required standard, with one or more minor weaknesses or gaps
4	Good: Proposal meets the required standard, with moderate levels of assurance
5	Excellent: Proposal fully meets the required standard with high levels of assurance

8. Notification and Information Sharing

Applicants will be informed by email whether their application has been successful, subject to compliance with the terms and conditions of the Conditional Grant Offer.

BEIS may wish to publicise the results of the scheme which may involve engagement with the media. At the end of the application and assessment process, BEIS may issue a press release or publish a notice on its website. These public documents may, for example, outline the overall results of competitions and describe some of the projects to be funded.

BEIS may share information from applications with other UK Government departments or with Ofgem.

Some organisations may want their activities to remain confidential and you will be given a chance to opt out of any involvement in media relations activity and further case study coverage of projects, should you see this as being absolutely necessary. However, the public description of the project you provide in your application will be made available in the public domain if your application is successful, and you are not able to opt out of the project description being published. In addition, all funded projects must include reporting and dissemination milestones – agreed with BEIS - as part of their project deliverables.

Any organisation that wishes to publicise its project, at any stage, must contact the Competition Project Manager or their Project Monitoring Officer at BEIS before doing so.

9. Project monitoring, knowledge sharing and evaluation

There will be a number of reporting requirements on project teams during the course of the project, including after the final payment milestone:

- Reporting: to track project progress and ensure payments are made according to a schedule of milestones to be agreed with selected projects. This reporting will be in confidence to BEIS and its technical advisers and will not be published. Any changes to schedules or project plans will need to be discussed with BEIS and applicants should expect significant interaction with the team during the project;
- Evaluation of the scheme: successful applicants will be expected to participate in an evaluation of the scheme during and after final grant payments, to assess the impact of the scheme including value for money;
- Knowledge sharing: effective dissemination and knowledge sharing are important requirements in this Competition – and applicants will be assessed on the scope and scale of their proposed knowledge sharing activities.

10. Feedback, re-application and right of appeal

A short summary of key feedback regarding the applications will be provided to all applicants, this feedback will be based on the comments of the project assessors (both BEIS officials and external technical assessors, if used). No additional feedback will be provided and there will be no further discussion on the application.

The feedback from the assessors is intended to be constructive. Comments are not a check list of points which must be answered or argued in a resubmitted application as the assessors may be different and it is your decision as to whether you act on the suggestions made.

11. Confidentiality and Freedom of Information

Where any request is made to BEIS under the Freedom of Information Act 2000 (“FOIA”) for the release of information relating to any project or applicant, which would otherwise be reasonably regarded as confidential information, then BEIS will notify you of the request as soon as we become aware of it. An applicant must acknowledge that any lists or schedules provided by it outlining information it deems confidential or commercially sensitive are of indicative value only and that BEIS may nevertheless be obliged to disclose information which the applicant considers confidential.

As part of the application process all applicants are asked to submit a public description of the project. This should be a public facing form of words that adequately describes the project but that does not disclose any information that may impact on Intellectual Property (IP), is confidential or commercially sensitive. The titles of successful projects, names of organisations, amounts awarded and the description of the project may be published once the award is confirmed as final.

All assessors used during the assessment of applications will be subject to a confidentiality agreement.

Annex 1 – Technology Readiness Levels (TRLs)

Technology readiness levels are an indication of the maturity stage of development of particular technology on its way to being developed for a particular application or product. The table below provides a definition of Technology Readiness Levels 1 to 9.

TRL 1 – Basic Research	Scientific research begins to be translated into applied research and development.
TRL 2 – Applied Research	Basic physical principles are observed, practical applications of those characteristics can be 'invented' or identified. At this level, the application is still speculative: there is not experimental proof or detailed analysis to support the conjecture.
Applied research and development	
TRL 3 – Critical Function or Proof of Concept Established	Active research and development is initiated. This includes analytical studies and laboratory studies to physically validate analytical predictions of separate elements of the technology. Examples include components that are not yet integrated or representative.
TRL 4 – Laboratory Testing/Validation of Component(s)/Process(es)	Basic technological components are integrated - Basic technological components are integrated to establish that the pieces will work together.
TRL 5 – Laboratory Testing of Integrated/Semi-Integrated System	The basic technological components are integrated with reasonably realistic supporting elements so it can be tested in a simulated environment.
Demonstration	
TRL 6 – Prototype System Verified	Representative model or prototype system, is tested in a relevant environment.
TRL 7 – Integrated Pilot System Demonstrated	Prototype near or at planned operational system, requiring demonstration of an actual system prototype in an operational environment.
Pre-commercial deployment	
TRL 8 – System Incorporated in Commercial Design	Technology is proven to work - Actual technology completed and qualified through test and demonstration.
TRL 9 – System Proven and Ready for Full Commercial Deployment	Actual application of technology is in its final form - Technology proven through successful operations.

Annex 2 – Eligible Costs

General Requirements

Timing: In addition to the requirements of the EU General Block Exemption Regulation, BEIS will only provide the grant to cover eligible costs incurred and defrayed in the period between acceptance of the BEIS grant or the project start date specified in the grant offer letter and the deadline specified in the grant offer letter for completion of the project.

Who can incur eligible costs: The definition of eligible costs includes the applicant's own costs, eligible costs incurred by consortium members and eligible costs incurred by companies sub-contracted to the applicant or consortium members.

Use of contractors: BEIS would not normally expect to see contractors in key posts, e.g. CEO, FD, etc within the applicant company or consortium members. Exceptionally, where BEIS is willing to fund a project which includes contractors in key posts, the day rate attributable to the project must be agreed with BEIS at the outset and cannot be varied without written agreement.

Non-sterling costs: Costs must be denominated in GB pounds. If relevant, applicants should indicate where conversion has been made to GB pounds from other currencies and indicate the conversion rate and assumptions used.

List of Eligible Costs

Under Article 25(3) of the EU Block Exemption Regulation⁹, eligible costs are defined as the following:

- a) Personnel costs: researchers, technicians and other supporting staff to the extent employed on the project;
- b) Costs of instruments and equipment to the extent and for the period used for the project. Where such instruments and equipment are not used for their full life for the project, only the depreciation costs corresponding to the life of the project, as calculated on the basis of generally accepted accounting principles are considered as eligible;

⁹ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0651&from=EN>

- c) Costs for of buildings and land, to the extent and for the duration period used for the project. With regard to buildings, only the depreciation costs corresponding to the life of the project, as calculated on the basis of generally accepted accounting principles are considered as eligible. For land, costs of commercial transfer or actually incurred capital costs are eligible;
- d) Costs of contractual research, knowledge and patents bought or licensed from outside sources at arm's length conditions, as well as costs of consultancy and equivalent services used exclusively for the project;
- e) Additional overheads and other operating expenses, including costs of materials, supplies and similar products, incurred directly as a result of the project.

List of Non-eligible Costs

Under no circumstances can the grant be claimed or used:

- a) For activities of a political or exclusively religious nature;
- b) In respect of costs reimbursed or to be reimbursed by funding from other public authorities or from the private sector;
- c) In connection with the receipt of contributions in kind (a contribution in goods or services as opposed to money);
- d) To cover interest payments (including service charge payments for finance leases);
- e) For the giving of gifts to individuals, other than promotional items with a value no more than £10 a year to any one individual;
- f) For entertaining (entertaining for this purpose means anything that would be a taxable benefit to the person being entertained, according to current UK tax regulations);
- g) To pay statutory fines, criminal fines or penalties; or
- h) In respect of VAT that you able to claim from HM Revenue and Customs.
- i) Contractors in key roles - BEIS would not normally expect to see contractors in key posts, e.g. CEO, FD, etc. Exceptionally, where BEIS is willing to fund a project which includes contractors in key posts, the day rate attributable to the project must be agreed with BEIS at the outset and cannot be varied without written agreement.

Annex 3 – Reasons for Exclusion

If you cannot answer 'no' to every question in the table below it is very unlikely that your application will be accepted, and you should contact us for advice before completing the Competition Application form.

Has your organisation or any directors or partner or any other person who has powers of representation, decision or control been convicted of any of the following offences?	Answer
(a) conspiracy within the meaning of section 1 or 1A of the Criminal Law Act 1977 or article 9 or 9A of the Criminal Attempts and Conspiracy (Northern Ireland) Order 1983 where that conspiracy relates to participation in a criminal organisation as defined in Article 2 of Council Framework Decision 2008/841/JHA;	
(b) corruption within the meaning of section 1 (2) of the Public Bodies Corrupt Practices Act 1889 or section 1 of the Prevention of Corruption Act 1906; where the offence relates to active corruption;	
(c) the offence of bribery, where the offence relates to active corruption;	
(d) bribery within the meaning of section 1 or 6 of the Bribery Act 2010;	
(e) fraud, where the offence relates to fraud affecting the European Communities' financial interests as defined by Article 1 of the Convention on the protection of the financial interests of the European Communities, within the meaning of:	
(i) the offence of cheating the Revenue;	
(ii) the offence of conspiracy to defraud;	
(iii) fraud or theft within the meaning of the Theft Act 1968 , the Theft Act (Northern Ireland) 1969, the Theft Act 1978 or the Theft (Northern Ireland) Order 1978;	
(iv) fraudulent trading within the meaning of section 458 of the Companies Act 1985, article 451 of the Companies (Northern Ireland) Order 1986 or section 993 of the Companies Act 2006;	
(v) fraudulent evasion within the meaning of section 170 of the Customs and Excise Management Act 1979 or section 72 of the Value Added Tax Act 1994 ;	
(vi) an offence in connection with taxation in the European Union within the meaning of section 71 of the Criminal Justice Act 1993;	

(vii) destroying, defacing or concealing of documents or procuring the execution of a valuable security within the meaning of section 20 of the Theft Act 1968 or section 19 of the Theft Act (Northern Ireland) 1969;	
(viii) fraud within the meaning of section 2, 3 or 4 of the Fraud Act 2006; or	
(ix) making, adapting, supplying or offering to supply articles for use in frauds within the meaning of section 7 of the Fraud Act 2006;	
(f) money laundering within the meaning of section 340(11) of the Proceeds of Crime Act 2002;	
(g) an offence in connection with the proceeds of criminal conduct within the meaning of section 93A, 93B or 93C of the Criminal Justice Act 1988 or article 45, 46 or 47 of the Proceeds of Crime (Northern Ireland) Order 1996; or	
(h) an offence in connection with the proceeds of drug trafficking within the meaning of section 49, 50 or 51 of the Drug Trafficking Act 1994; or	
(i) any other offence within the meaning of Article 45(1) of Directive 2004/18/EC as defined by the national law of any relevant State.	

Information on the latest innovation calls can be found here:

<https://www.gov.uk/guidance/energy-innovation>



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