



Energiteknologisk Udviklings-  
og Demonstrationsprogram

June 28, 2018

# **Energy Technology Development and Demonstration Programme (EUDP)**

Call for proposals

EUDP 2018-II

Dead line September 7, 2018 1500 CET

(unofficial translation)

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# 1. Call for proposals

The Board of the Energy Technology Development and Demonstration Programme (EDDP) invites applications for support to development and demonstration of new energy technologies and related research.

The call includes general EUDP financial budget and two targetted actions for energy efficient transport, respectively, research into and trials of more environmentally friendly and energy efficient production of oil and gas

Under the general financial budget, grants may also be given for international cooperation projects, for projects conducted by technology partnerships and for analysis and dissemination.

All applications must follow the general guidelines for applications to the EUDP.

# 2. Important information

## Funding available

Funding available in this application round

- the general EUDP call – EUDP funding available up to 180 mill. DKK.
- a targetted action regarding energy efficiency and reduced CO2 emissions in transport – EUDP funding available approx. 2,8 mill. DKK.
- a targetted action regarding research and testing of more environmentally friendly and energy efficient production of oil and gas - 9.8 mill. DKK.

## Dead line

The deadline for submitting proposals is September 7, 2018 1500 CET. Applications received after this date will not be processed. In some cases, commitments can only be given after concise questions have been clarified.

## Decisions on funding and rejections

Decisions on funding will take by the EUDP Board mid December 2018. Notice of commitments and refusals are given immediately thereafter.

## Language

The application form must be prepared in English. Applications for funding of less than DKK 3 million per project may be submitted in Danish. If research or Ph.D. education is part of the project the proposal must be in English.

## **Guidelines for application**

Refer to the document "Guidelines for application". Applicants are also welcome to contact the EUDP Secretariat with questions about filling out the application material or concerning the project.

## **Submission of application**

Applications must be submitted electronically at the DEA's grants [portal](#) (only available in Danish).

New applicants must register as a user on the funding portal, using **CVR Nem-id (employee certificate)**. It must be required from NETS. Key card or key file must be used.

An application includes some data to be given on the portal and some documents to be filled in.

Documents to be filled in must be downloaded from [ens.dk](#). The documents include the application form (word), budget and time schedule (Gantt) (both Excel) and the declaration from other participants regarding their participation.

Before submitting the application, an overview of portal data and names of files is shown. Applicants must check that all the necessary files are attached.

## **Proof of submission of application**

Having submitted the application, a PDF file including portal data and file names can be downloaded. You will NOT receive a mail confirming the submission.

## **Previous projects regarding the technology**

Information on past and ongoing publicly funded projects may be found on [www.energiforskning.dk](http://www.energiforskning.dk)

## **Applications may be rejected**

Applications can be immediately denied if

- the application is not submitted with the required supporting documents before the deadline
- the project obviously fall outside the program's objectives
- the application form, including the budget form is not completed in accordance with the guideline requirements
- annex on research evaluation is not enclosed (applies only to projects with research content - see section. 8).

## **New this round**

Applicants in sole proprietors who can not document wage payments (and thus an eligible payroll) may apply for support on the basis of a fixed hourly rate of DKK 350. In these cases, wage subsidy will be calculated as a percentage. of 350 kr. This procedure is used instead of de minimis support.

If research or Ph.D. education is part of the project the proposal must be in English.

### **Other funding programs**

There are several schemes for research, development, demonstration and / or market maturation of energy technologies. In particular:

- ELFORSK which supports research, development and demonstration projects in effective use of electricity in final consumption
- National Innovation Fund (Danmarks Innovationsfond) supporting research and innovation broadly, including energy technologies.

## **3. Purpose and framework for EUDP**

### **Legal framework**

The legal basis for the Energy Technology Development and Demonstration Program is

- Act no. 555 of 6 June 2007 as revised in 2010.
- Order no. 133 of 27 February 2008

From 2015 EUDP support is given on the basis of the EU block exemption regulations.

### **Purpose**

EUDP's purpose is to support the achievement of the energy policy objectives by supporting the development and demonstration of new energy technologies. The energy policy goals are within security of energy supplies, climate, environment, cost-effectiveness and independence from fossil fuels by 2050.

With the energy agreement of March 2012 regarding Danish energy policy 2012-20 the government and a majority of the political parties in Parliament have agreed upon a number of energy policy initiatives and objectives in order to develop a energy efficient society, a green and sustainable energy supply and to develop the electricity system.

In the Government's "For a freer, richer and more secure Denmark", 2016 the long-term goal is that Denmark in 2050 can produce renewable energy to be independent of fossil fuels

The EU Commission presented in November 2016 the so-called "Winter package" that includes a series of initiatives which will have impact on the Danish energy sector. The winter package is part of realizing the Energy Union. The purpose of the winter package is to ensure the achievement of EU's 2030 target for renewable energy and energy efficiency and to tie energy systems in Europe closer together. The initiative will support the development of new energy technologies and companies developing these technologies.

### **Board**

EUDP is managed by an independent board of 7 members. The Secretariat is located in the Danish Energy Agency (DEA).

## **EUDP strategy and efficiency targets**

In its Strategy 2017-19 the EUDP Board puts emphasis on supporting development and demonstration projects and activities that utilize Danish business potentials. The strategy is based on the Danish strongholds in energy technologies. The Board wishes to support the development of technologies that have a global market for. Emphasis is also placed on participation in international cooperation within the EU, IEA and Mission Innovation. The strategy can be seen [here](#)

The strategy also formulates a number of efficiency targets that will form the basis for an assessment of the applied projects potential impact compared to EUDP's objectives. Applicants must in their applications account for the contribution to efficacy measures.

A similar assessment should be made on completion of the projects supported.

The efficiency targets concern the following areas:

- Security of supply
- Independence from fossil fuels
- Climate and a cleaner environment
- Cost efficiency
- Utilization and development of Danish business potentials for growth and employment
- Research that prepares the development and demonstration of new energy technology.

## **4. Project types**

**EUDP supports the following project types:**

### **Development and demonstration**

The EUDP programme is to provide funding chiefly to development and demonstration of new energy technologies.

- *Development* means utilisation of knowledge in order to produce new or improve existing materials, products, processes, methods, systems or services (corresponding to EU Technology Readiness Level TRL 4-6)<sup>1</sup>.
- *Demonstration* projects mean projects that involve experimental testing of a technology, a system or a method under conditions as close to reality as possible, with the aim of subsequent introduction to the market or, if the demonstration so requires, further development before introduction to the market (corresponding to EU Technology Readiness Level TRL 6-8).

<sup>1</sup> see further [here](#)

## Research

EUDP does not support research. Reference is made to the Danish Innovation Fund (Danmarks Innovationsfond) as regards the possibilities for seeking support for research.

However, the EUDP programme can supply funding to research which prepares or directly supports demonstration activities. In this case, concrete plans for the demonstration activity must be available. If research, including ph.d. education, is part of the application this must be indicated when starting the application procedure and item 9 of the application formula must be filled in. In addition, the application must be written in English regardless of the amount requested.

- *Research* means original projects aiming at getting new knowledge and understanding in relation to specific goals and applications (corresponding to EU Technology Readiness Level TRL 2-4).

## International collaboration

Applicants can apply for funding for international collaboration on development and demonstration of new energy technologies and research in this connection, including in particular:

- ***The EU's Strategic Energy Technology Plan (the SET plan)***

The EUDP programme can fund applicants' participation in larger joint European projects which contribute to implementing European initiatives under EU's Strategic Energy Technology Plan (SET). The projects must be within the objectives of EUDP.

EUDP supports participation in relevant ERA-NET Cofund activities, see section regarding technologies.

- ***The International Energy Agency – Energy Technology Network***

Denmark participates in the International Energy Agency technology network (IEA Energy Technology Network), which includes a wide range of technology or theme-specific agreements - so-called Implementing Agreements - between IEA member countries on cooperation in research, development and demonstration of energy.

Within these agreements experts from research institutions and industry in various countries cooperate to exchange information, share results and to perform specific analyzes and investigations to be presented in reports and publications. The co-operation usually takes place through the participation in the so-called annexes or task's defined by the individual Implementing Agreements.

EUDP may upon application support Danish participation in such annexes or task's

- if it is a field of particular Danish interest
- if the application contains a comprehensive overview of all relevant Danish actors and stakeholders in the relevant technology area. This applies to research institutions, knowledge centers, private production and consulting companies, utilities and public authorities as well as trade associations, etc.
- if the applicant has a professional self-interest in participating

- if a plan has been specified in the application for the specific dissemination activities that are planned in relation to the relevant Danish actors and stakeholders in the field. For participation in tasks / annexes, as a minimum an electronic newsletter or equivalent (eg website) must be created, which is offered to all actors and stakeholders, and is communicated at least twice a year, eg. in connection with the applicant's participation in meetings, workshops and the like or upon the emergence of new reports, analyzes or other initiatives by the IEA.
- that at least one workshop / seminar will be held during the project period aimed at the Danish actors and stakeholders in the area concerned. This can be done in cooperation with other related IEA partners or similar.

Applications for support to participate must be submitted in EUDP application rounds, by filling in EUDP's standard application form (with exception of sections 6.2, 6.3 and 8), budget file and Gantt diagram.

The application must describe:

- The Danish interest in the field and the relevance of participation in the co-operation work and relevance to EUDP's strategy 2017-19 and the energy policy objectives.
- Working content of annex'et / The task.
- Applicant's own tasks in co-operation.
- Dissemination activities to stakeholders in Denmark.
- Applicant's professional background - CV for Danish participants enclosed.
- Activities and time schedule - the Gantt chart must be completed.
- The Danish participation must be specified on a budget including hours spent, travel costs, other expenses and overhead expenses – by filling in the budget file attached to the application. In addition, the hours budgetted must be specified in a note to the budget on
  - hours for attendance / travel,
  - hours for performing specific tasks.

Support is given for relevant costs for time consumption, travel, expense and overhead. No support is granted for installations, instruments, equipment and materials ("hardware").

Research institutions / universities may apply for support to *up to 70%* of the eligible costs for participation in the IEA co-operation. Overhead for research institutions / universities must not exceed 44%.

Support for enterprises must be in accordance with EU Commission guidelines on maximum support for development and innovation - for more details see section. 3.4 of the 'Rules for support from EUDP for projects in research, development and demonstration'.

Applications of the above character are created on the portal under the *relevant budget area* and checked in the application form under "*Other*".

If an application includes *actual technology development activities*, application for funding follow the general EUDP guidelines for technology development projects.

## **Partnerships, analyses and dissemination**

EUDP can provide support for

- specific initiatives carried out as part of the development of cooperation between public and private actors, such as strategies, action plans, market studies.

The following conditions apply for this kind of activities:

- Specifically, priorities must be identified to form the basis for establishing project consortia in order to promote project applications to for example EUDP.
- The effect of EUDP support for the establishment / development of a strategic partnership as well as the industry's demand for concrete strategies, action plans must be explained.
- Applications must refer to one of the six specific technology areas in EUDP strategy. It must be clear, to which activities funding is applied for, and who will carry out the activities.
- Projects must be driven by companies.

## **Analysis and dissemination**

The program may in special occasions support

- dissemination of research results and other relevant technological knowledge
- pilot studies and analyzes.

## **Activities not eligible for funding**

Funding is not awarded to projects which aim to

- development of new markets including promotion of existing technologies and operation of plants.
- development of infra structure
- the implementation of preproduction planning, or to streamlining production or control processes and similar.<sup>2</sup>

# **5. Technologies and targeted actions**

## **Technologies**

EUDP supports all new energy technologies. Major areas are energy technologies aiming at more efficient use of energy, all kinds of renewable energy and technologies for conversion and storage of energy. Special priorities are technologies that represent Danish strongholds, please refer to the EUDP strategy 2017-18:

- wind energy
- district heating
- energy efficient solutions
- bioenergy
- smart energy and integration of energy systems
- oil and gas.

<sup>2</sup>See the OECD Frascati Manual

## Targeted actions

Applications for these initiatives follow the guidelines for applications for EUDP.

- ***Development and demonstration regarding energy efficient transport***

This call for project proposals includes a targeted action to aid development and demonstration projects regarding energy efficient transport. The focus must be on developing clean-tech solutions for transport that promotes energy efficiency, and integrated solutions that help to reduce CO2 emissions.

In 2018 available funding for this initiative is DKK 8.0 mill. In this round approx. **2.8 mill. DKK** is available. This specific action is not expected to continue in 2019.

Transport accounts for a large part of Denmark's total energy consumption. Promoting a more energy efficient transport and solutions that reduce CO2 emissions is therefore an important part of the effort to promote energy efficiency throughout the Danish energy sector.

- ***Research into and experiments with more environmentally friendly and energy efficient production of oil and gas***

A special fund is being offered under the EUDP for the purpose of supporting development and demonstration projects with associated research that can contribute to a more environmentally friendly and energy efficient production of oil and gas. The aim is, in particular, to reduce the environmental footprint for industry. This can be done, for example, by developing methods that can help break down barriers for further energy efficiency, including, for example, the reduction of gas and fuel consumption and for flaring, as well as the introduction of energy management.

The pool can also help promote the transfer of technologies from research institutes for commercial use. It is also a purpose to support the testing of new technologies under realistic conditions, for example, on an oil-gas plant.

In 2018, this targeted action has a budget of 9.8 mill. DKK. In this round the available budget is **9.8 mill. DKK**. The grant is expected to be continued in the following years at a varying level. The total grant in the years 2017-25 amounts to 100 mill. DKK.

## 6. Who can apply?

Public and private enterprises or knowledge institutions can apply for funding under the EUDP programme. This includes universities and approved technological service (in Danish 'GTS') institutes.

The EUDP programme can co-fund foreign participants in projects which contribute to advancing technological development in Denmark as long as the commitment holding company is registered in Denmark. The main applicant must be registered in Denmark.

Aid is not available to companies that have not complied with a demand for repayment of support that following a previous EU Commission decision has been declared incompatible with the internal market.

## 7. How much aid

EUDP support is provided within the framework of the EU State Aid Code, which sets the upper limits for support rates, or according to the de minimis support rules.

Each participant in the project must fill in a budget showing budgeted expenses and financing, including aid applied for.

- *Aid (DKK)*  
No provisions are provided for minimum or maximum aid in DKK.
- *Aid intensity (pct)*  
Aid intensity varies between applicants and must comply with EU rules regarding state aid. The applicant indicates the requested support rate in the budget. In the case of a decision on support, the EUDP Board of Directors establish the percentage of aid for each project participant as a result of company size, project type, commercial aspects and technical and economic risk involved. Aid is further decided based on an evaluation on the incentive effects of the aid granted.

Support is granted mainly on the basis of actual expenses incurred under the EU Block Exemption Regulation. The allowable support rates are set out in the EUDP Rules for Payment of Support.

Support can also be given in the form of de minimis support which for the recipient cannot exceed 200,000 € over a continuous three-year period.

Public funding of research and development activities carried out by universities and public research institutions, not working in order to profit, is generally not covered by EU state aid rules for R&D & Innovation. Such activities may be supported with up to 90 %.

For development and demonstration projects at least 50 % financing by the applicants should be aimed at.

## 8. Submission of applications

Having registered as a user on the funding portal, using Nem-id, the applicant must

- fill in basic data on the portal

and fill in and attach the following appendices:

1. Appendix 1 an application form (a text form), to be filled in on the portal (see file on homepage)

All fields in the application form must be filled in substantially. Annexes cannot replace filling in all of the fields in the application form. If research is included, a specific annex must be attached under section 9, see below.

2. Appendix 2 a budget form (an Excel file named Projektøkonomi); to be edited on your own PC and uploaded when finished (see file on homepage).
3. Appendix 3 a timetable (an Excel file called GANTT chart); to be edited on your own PC and uploaded when finished (see file on homepage).

4. Appendix 4 declarations from all project participants stating their intention to participate in project financing.
5. Appendix 5. As a minimum, the CV of the project manager must be enclosed. Please include CV's in one file.
6. OR Appendix 6 For research projects, CVs must be enclosed for all participants of importance to the research part of the project. Please include CV's in one file.
7. Appendix 7 re. research technical evaluation (MUST be included if research is part of the project)
8. Appendix 8 Further annexes can be submitted if necessary.

Appendix 1-5 must always be submitted.

Files must not contain links to other files or be read-only files and they must not include e-mails.

All files are available on [ens.dk/eudp](http://ens.dk/eudp) under and they must be submitted using the portal.

### **Research-technical assessment**

Projects including research must be worthy of support based on a research-technical assessment, and such projects will be evaluated by Denmark's Innovation Fund. If the project proposal includes research, the proposal will be sent to Denmark's Innovation Fund for research evaluation. The evaluation is made on the basis of the applicant's reply to the application form section 9 with the obligatory appendix and CVs. Research projects of the Fund is deemed not worthy of support, cannot be supported.

It will be considered positive if researchers training (PhD) is included in a project with a significant research content.

Please see the specific requirements of the application instructions.

## **9. Criteria for assessment of applications**

EUDP's board puts emphasize on

- supporting the development of technologies with global demand
- that the technologies developed are being deployed to markets and a plan for deployment is expected with the application
- that cooperation between companies and universities and GTS is managed by a company, if possible.

The Board wishes to assess the impact of the projects supported by and after project completion. In this respect the Board has formulated a number efficiency targets that

will form the basis for an ex post evaluation of the projects' effects. Applicants must in the applications ex ante explain their potential contribution to the impact targets.

The assessment criteria are summarized below. A detailed description of the individual criteria and related efficiency targets can be found in the Guide to the application form.

Criteria:	Emphasis is on that (ref. to Guidelines):
1. Project objective	the project's objective and the state of art of the technology is clearly described, <u>that</u> the proposed project's maturity and risk is clear, <u>that</u> the project includes an innovative technological development, <u>that</u> it is feasible and can be completed as described and <u>that</u> the solution can be replicated and scaled (2.1).
2. Project time schedule and structure and feasibility	the content of the project is clearly described and organized in work packages and that a appropriate number of milestones (technological and commercial) are indicated in the Gantt chart (2.2).
3. Effects of the project	the project's relevance and potential in relation to the objectives of the EUDP act is described incl. reference to technology strategies, if any (3).
4. Dissemination	it is clear how the project results will become disseminated (4)
5. Organisation  a) Security of supply b) Independence of fossil fuels c) Climate and environmental concerns d) Cost-effectiveness e) Growth and Jobs  f) Research prepares development and demonstration of energy technology	the project effects in relation to EUDP's purpose is described (3):  The applicant must for the specified efficiency targets qualitatively and with respect to d) and e) as far as possible quantitatively explain in what way and to what extent the project is expected to contribute. Projects do not necessarily need to contribute to all endpoints.  f) eg number of publications in peer-reviewed journals. (NB: Only relevant if project includes research, see criterion no. 10) (5.2).
6. Budget and financing	the project budget is reasonable seen together with project content and expected results, that assumptions for key budget items are explained and that the parties have confirmed their participation (6).
7. Incentive effect	that it in the application is made probable that the project will not be completed in the requested version, if no support is granted (7).
8. Market potential	the competitive situation and the expected market for the technology developed is clearly described (where, when, how much) and also, that plans of marketing are is clearly described (8.2, 8.3, 8.4). (see also 2.1 bullet

	4).
9. Value proposition	the final target group and the project's added value (economy, comfort, functionality, etc..) is clearly described and further, that the anticipated effects of the project also are clear from the description (8.1)
10. Research-technical assessment	projects with research content include a clear description of the research content corresponding to the requirements specified in the special section on research (section 9.1). It is considered important (but not required) that education of reserchers is included in projects with a significant part of research (see also sections 5.2 and Public / Private partnership).
11. Public-private co-operation	the project proposal includes co-operation between companies and public research institutions in accordance with the program's aim to promote this, but it is not a requirement that co-operation is included in the projects (5.2).

## 10. Processing applications

Project proposals are processed following the procedure below:

- Call for proposals primo January 2018
- Project proposals - Deadline March 2, 2018 1500 CET
- Evaluation of project proposals, March-May 2018

During processing of applications, the EUDP Secretariat will consult with external experts. The external experts must not be disqualified and they are imposed confidentiality of application material.

Applications related to special projects as building partnerships, international co-operation, dissemination are in general assessed by the Secretariat without the involvement of external experts.

- Research-technical assessment

The assessment of applications for funding of projects involving research takes place in collaboration with the Innovation Fund (Danmarks Innovationsfond). Decisions by the EUDP Secretariat as to whether an application is to be sent for research-technical assessment are mainly based on categorisation by the applicant on the application form.

- Hearing of parties April 2018

The hearing will provide the applicant opportunity to comment on any external assessments.

- Decisions by EUDP Board mid June 2018.

## 11. If funding is awarded

Information about the projects receiving aid will be available on

- the Danish Energy Agency's home page [www.ens.dk](http://www.ens.dk) showing main applicant and budget
- [www.energiforskning.dk](http://www.energiforskning.dk) and [www.energiteknologi.dk](http://www.energiteknologi.dk) including a short description of the project, project participants and budget.

Having received a commitment for aid, a number of requirements have to be met when carrying out the project. The requirements are described in a set of rules (regelsæt) regarding payment of aid, see section on other documents.

The requirements include:

- Project agreement
  - The responsible company and other project participants must not later one month after having received the project agreement accept the agreement and return a signed copy (signed by all parties). The project may not commence until agreement is reached between the project participants and EUDP.
- Obligation to Coordination, reporting and accounting obligations
  - The commitment holder (enterprise/institution responsible for the project) is financially and professionally responsible for completion of the project. This means that the enterprise/institution responsible for the project coordinates all financial and technical/professional relationships with any collaboration partners.
- Dissemination and utilisation of results achieved as well rights
  - Project results must be *made public*, however considerations may take place when patent rights are being acquired. In specific cases EUDP may allow that results are not published. When terminating the project the responsible company forwards a project report that is suitable for publication.
  - The responsible company may during the project be asked to forward pictures of project results to be used on the web portals.
  - Payment of aid is a main rule granted based on the General Block Exemption Regulation. Aid is paid based on a statement of actual, eligible expenses and the aid intensities stated in the project agreement for each participant.

In certain cases aid is granted under EU de minimis rules

- When asking for payment of aid, a short statement describing project advancement according to Gantt diagram and/or milestones must follow the statement of expenses. As a starting point payments are made twice a year, but payments each quarter may be agreed upon.
- It is a condition for receiving aid that the activity in question has not been begun before the commitment for aid has been given and that an

agreement describing co-operation and distribution of rights between participants has been made. A copy must be forwarded to EUDP for information.

NOTE: aid being paid on the basis of actual costs incurred, including actual salaries. Support is not paid on the basis of budget figures.

- Contribution to efficiency targets
  - EUDP Strategy 2017-19 sets out a series of efficiency targets of the projects supported. Funded projects will at project completion and after completion of the project be asked to explain the effects achieved with regard to the stated objectives, see. Section. 3 under Evaluation criteria.

A full description of the rules is found in the document Regelsæt (Rules), se section on other documents.

## **12. Other documents**

Payment of aid is subject to a number of conditions as described in

- Rules for payment of EUDP aid (Regelsæt)
- Guidelines for filling in Application, Budget and Gantt including annexes regarding