

Call: Graduate school in energy systems

The Swedish Energy Agency announces grant founding of SEK 45 million within the framework of the five-year research program "Graduate school in energy systems" phase 2, 2017-2022. This call welcomes interdisciplinary project proposals that studies challenges for the energy systems and includes two to three graduate students from social sciences/ humanities, and from technical/natural sciences. This call will close on 31 January at 11.59 pm. Phone support are not available after 4 pm.

Energy systems comprised of humans and their interaction with the technologies, services and solutions, as well as with policies, laws and other social institutions. These parts can counteract each other, but they need to interact to Sweden to reach the climate goals and the energy policy objectives of security of supply, competitiveness and environmental sustainability. There is a great need for knowledge and individuals who understand and can manage multiple perspectives and complex relationships pertaining to development of energy systems. These individuals can help create the development needed to reach sustainable energy systems.

This call aims to create new knowledge and individuals with expertise who can understand different perspectives on energy systems and the interactions between them. The call wants to reach researchers that want to lead and participate in interdisciplinary PhD projects. The projects will consist of PhD students and scientific perspectives, research questions and methods from both the social sciences and humanities research disciplines, as well as from technological and natural sciences.

Interdisciplinary doctoral collaborations will create new meetings and opportunities for new kinds of research questions that is problem-oriented and challenge-driven. Such questions can broaden knowledge and give renewed perspective on the world's energy and societal challenges and how they can be managed to make the transition to sustainable energy systems.

This call welcomes project applications that can contribute to at least one of the energy and societal challenges in focus in this call:

- Renewable energy systems
- Interactions and collaborations in energy systems
- Flexible and robust Power systems
- Resource efficient societies

The application must clearly describe how and in what way the project will contribute to one or more of these challenges, and from which disciplines as challenges to be studied and what it is expected to contribute to. Projects can concern all forms of traditional but also new and innovative energy areas and issues.

The application should include the financing of two to three graduate students for four years of study. Together, tutors and prospective graduate students in the project have their origin in both social science/humanities research and scientific/technological research. This means that at least one supervisor with associated doctoral student must be resident in social science/humanities research. In addition, the supervisors and PhD. The students in one project must be domiciled in different faculties and universities.

It is mandatory for the doctoral students funded through the program to participate in the all the activities of the program. This includes regular meetings and seminars as well as a course package consisting of courses of about 40-45 credits in total. The courses are developed in dialogue between the project manager/supervisor and graduate school collaborative forum, and will, for example, treat different perspectives on energy systems, scientific theory and methodology, and include practical exercises and the performance of multidisciplinary course projects. The activities organized by the collaborative forum will run continuously throughout the project period.

It is mandatory for project managers and supervisor for the PhD students to participate in the formulation of joint activities of the graduate school, including take an active part in the planning and implementation of the PhD education. This means participation in scientific management teams, in the drafting and implementation of postgraduate the courses coordinated by the collaborative forum. Please note that costs for the project managers ' and supervisors ' participation in the organization and implementation of the graduate school is not funded by the program.

Projects eligible for grants can start no earlier than in May 2018 and last until 31 December 2022.

The application may be written in Swedish or English. The application text is expected to be formulated so that anyone who is not familiar with the subject to understand what the project is all about. An English text have to be supplemented by a Swedish summary. A Swedish summary is required for applications in English.

What percentage of the project's costs can I receive support for?

For projects conducted by higher education institutes, the Swedish Energy Agency may grant state aid by up to 100 % of the project's costs according to the applicable spending authorization ([Regulation](#)). Research institutes and public organisations may make up for costs for overhead with of up to 30% on their eligible staff costs

Co-financing can, for example, consist of working hours, cash and experiment costs. If the co-financing includes Government money, this should not be included in the co-financing. For example, if an institute receives 25 % of its basic funds in the form of Government money, only 75 % of its project costs can be included as co-financing.

Costs related to project managers ' and supervisors ' participation in the organization and implementation of the PhD. course package, and participation in seminars and meetings are NOT supported in this call.

Conditions for granted projects

Swedish Energy Agency sets the following requirements for projects that may be granted in this call:

- Project proposals should contain two to three PhD projects within a common energy and societal challenge. The projects should be interdisciplinary. For this call, it means that cooperation should take place between researchers in the social sciences and humanities research disciplines, combined with researchers in natural science and technology
- The participants in a project proposal with two to three graduate students have to represent at least two faculties and/or universities.
- A detailed and relevant plan to create dialogue with and mediate knowledge and skills to the designated target groups and other stakeholders, national and international.

The Swedish Energy Agency's decision regarding aid is based on an agreed project and cost plan. For aid to be paid to approved projects, the beneficiary must confirm that he/she has studied the Swedish Energy Agency's decision and that he/she accepts the conditions for the support. A more detailed description of the conditions can be found in the appendix below.

How to apply

The application must be written in accordance with the Notice to Applicants and be submitted via the Swedish Energy Agency's electronic application tool [E-channel](#). Remember to obtain user access in E-channel in good time, since it may take a few days.

The application must be written so that those not fully conversant with the subject have the possibility to understand what the project concerns. The following parts must be included in the application

- A description of the project's societal and energy relevance and contain clear interim and final goals. Aim and goals must be formulated in such a way that they can be met during the time the project is in progress.
- A background description that provides an overview of scientific findings and known knowledge in the field of research including references.
- A justification of how the project is interdisciplinary and how interdisciplinary knowledge to be created during the project's implementation.

- Descriptions of the project's structure, theory and method, and how the project will be implemented including references. Also include a brief description of the project relevant collaborations with national and international researchers and community stakeholders, as well as how the project integrates gender and diversity aspects.
- Descriptions of the two to three PhD projects.
- Descriptions of the project's plan to create dialogue, disseminate and communicate the project's results with the target groups and other stakeholders. A description of the project's reference group and how it can be used should also be added.

The complete application must be submitted at the latest on 31/01/2018 at 11.59 p.m. Phone support are not available after 4 pm.

Assessment criteria

The applications are assessed by an evaluation panel that is composed of scientists and people with competence to assess the relevance of the research areas. The applications are evaluated in accordance with the instructions and stipulations stated in the call announcement text. The evaluation criteria are:

Scientific and interdisciplinary quality

- The project's level of interdisciplinarity and the representation of various universities and/or faculties.
- The project's interdisciplinary approach and scientific theoretical awareness
- Selected research challenges as well as the project's expected contribution to them
- Aim and goals.

Relevance for energy and societal transition

- The project's position in relation to previous research in selected energy and societal challenge.
- The project's expected contribution to the achievement of the objectives of energy policy and energy conversion systems.
- Relevance for the social actors who has been identified as target groups for the project.
- The project plan's inclusion of equality and diversity aspects.

Newsworthiness

- project's degree of innovation in its content and direction in relation to their field of research.
- The project's contribution to increasing knowledge and competence in the chosen area of research
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Methods and implementation

- The project's choice of method/methods in relation to selected research questions.
- The project's choice of scientific method/methods and its suitability to respond to selected research questions.
- Plan for implementation of the selected method/selected methods.
- Reasonableness of project scope and time schedule in relation to the plan of implementation and the proposed budget.

Create dialogue, and disseminate knowledge and expertise

- The project plan for the dissemination of knowledge and expertise to relevant societal actors
- The project plan for the implementation of cooperation and collaboration with relevant social actors.

Expertise for project implementation

- Project team's composition and its compatibility with the application requirements for interdisciplinary collaboration and cooperation between at least two separate faculties/universities.
- The project group's scientific and related skills in relation to the project plan
- Experience of interdisciplinary collaborations
- The collaboration with for the project, relevant networks of national and international researchers and research networks.

In the assessment, the following will also be considered:

- A balance of topics and methods in the large portfolio including stage 1, where the new projects will complement the portfolio.

Decision on financial support

The Swedish Energy agency may request you to supplement the application if we find reason to do so. The request may concern, for example, increased demands on co-financing, changes to the project plan or a detailed description of the project concept. Your application will be assessed by external evaluators. They will make a recommendation to the Swedish Energy Agency for projects to be supported. The final decision will be made by the Swedish Energy Agency by May 2018 at the earliest. Shortly thereafter, you will be informed of the decision taken and the reason for the decision.

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About the research program

The program "Graduate school in energy systems" phase 2 is for the period 2017-2022 a cohesive commitment to interdisciplinary graduate school in studies of energy issues. The program's vision is to make sustainable energy systems designed by individuals with multi-disciplinary expertise with holistic approach that can understand the different scientific approaches and energy policy issues and who can put them in various forms of perspective and cuts. These individuals will contribute to the change in business, the public sector, civil society and academia. This will increase the possibilities to control the development of energy systems towards sustainable energy systems.

The program is based on a holistic approach to energy systems by including people and community surrounding factors in the analysis of energy systems based on an awareness that people influence and are influenced by the systems of which they are a part of. This means that technology, people, and institutions such as the policies, laws and values are linked with each other and affect the use, supply, transformation and extraction of energy. These parts can clash and create tensions in transition processes, but they need to interact and work in the same direction to create sustainable energy systems.

The graduate school promotes scientific research carried out in interdisciplinary PhD projects with about two-three doctoral students with associated senior supervisor in every project. An interdisciplinary research project requires expertise, research questions, methods, terminology, and researchers in the social sciences and humanities research disciplines, combined with researchers in science and technology. Joint graduate school courses and activities are coordinated by the graduate school collaborative forum.

The main purpose for the Graduate school is to create cross-disciplinary expertise and knowledge with an overall view of energy issues and energy systems. Interdisciplinary trained researchers have relevant and sought-after skills attractive for business, public sector and academia. The program contributes to the following energy, climate and social challenges:

- Renewable Energy systems
- Interactions and collaborations in energy systems
- Flexible and robust Power systems
- Resource efficient societies

This program stage covers the period 2017-11-17 - 2022-12-31 with a total budget of 85 million. The work of the program and the program's content is monitored by the Swedish Energy Agency, with the help of the program's performance indicators, program objectives and goals.

Appendix 1

Conditions for funded projects

The conditions that apply to funded projects are listed in the Swedish Energy Agency's funding decision. A description of the conditions follows below.

General conditions

The Swedish Energy Agency's funding decision is based on an agreed project plan and budget. The part of the costs not covered by funding from the Swedish Energy Agency shall be covered by resources or funds provided by another financier. The beneficiary is responsible for covering the extra costs that occur during the project period. When the Swedish Energy Agency's funding decision covers funding outside of the current financial year, the decision only applies provided that the Swedish Energy Agency receives/has at its disposal the required funds in the following years.

The shifting of costs between cost categories is accepted up to 10 per cent within each cost category, provided that the total budget does not change. Larger changes require approval from the Swedish Energy Agency.

§ 1 Payment of grants

The grants are disbursed without a requisition form, in the middle of the project period for each budget year, unless otherwise stated in the funding decision. Grants only cover value added tax when it occurs as net cost for the beneficiary (only applies to universities and university colleges). Verifications for accounted expenditures must, upon request, be submitted to the Swedish Energy Agency. Funds that have not been used shall be repaid. Advances can be provided, up to 30 per cent of the total grant provided (only applies to universities and colleges). 15 per cent, or another percentage set out in the funding decision, of the grant provided can be withheld until final reporting in accordance with § 4 has been submitted and approved by the Swedish Energy Agency.

§ 2 Employer relationship

The Swedish Energy Agency is not the employer or principal of the beneficiary or anyone else he/she engages in the project. Accordingly, the Swedish Energy Agency does not make deductions for taxes, social security contributions, etc.

§ 3 Notification obligation regarding other funding

The beneficiary is obliged to immediately notify the Swedish Energy Agency in writing, if funding for the project in the application process have been applied for or granted by anyone other than the Swedish Energy Agency.

§ 4 Reporting obligation

Reports and surveys as set out below shall be submitted in accordance with the Swedish Energy Agency's instructions. If additional special reports are required, it is stated in the funding decision.

Annual report

Universities and university colleges are obliged, for each budget year, at the request of the Swedish Energy Agency, to submit annual reports concerning the complete activities of the department and/or research team.

Progress report

The progress report concerning the project's activities shall be provided at the request of the Swedish Energy Agency. The progress report shall include a description of the existing activities and results of the project as well as a financial reporting. In addition, the Swedish Energy Agency may request that the report shall include a technical status report. The progress report shall be submitted to the Swedish Energy Agency at the latest on the date stated in the funding decision.

Financial Accounting – only applies to companies

Financial accounts shall be submitted once or twice a year using a specific form provided by the Swedish Energy Agency or downloaded from the Agency's website (www.energimyndigheten.se). The account shall be submitted at the latest on the date stated in the funding decision.

Final report

The final report shall include the project results and contain a description of the implementation of the project and the fulfilment of objectives. Furthermore, the report shall contain a summary of the project results in English of no more than 200 words. The report shall be submitted to the Swedish Energy Agency at the latest on the date stated in the funding decision.

A specific final financial accounting shall be submitted no later than on the date stated in the funding decision using a specific form provided by the Swedish Energy Agency or downloaded from the Agency's website (www.energimyndigheten.se).

Survey

As a beneficiary, you need to complete a survey at the end of each year and submit this to the Swedish Energy Agency. We collect, on behalf of the Government, details from all beneficiaries in order to present a number of results in the form of indicators form in our annual financial statement.

§ 5 Changes

Significant changes within project and budget approved by the Swedish Energy Agency must be reported in advance to the Swedish Energy Agency for evaluation and approval. The beneficiary must immediately notify the Swedish

Energy Agency if circumstances of significant importance occur that result in the cancellation or delay, etc. of the project. The beneficiary is obliged to immediately report any changes in name or address.

§ 6 Publication

The project results shall be published. Publication shall take place in accordance with international best practice for the publication of research results.

The beneficiary is entitled to protect the results by patents or other intellectual property rights and in doing so postpone publication until any application for such property rights has been submitted to the relevant patent office. The Swedish Energy Agency must be notified if the beneficiary intends to protect the results. Applications to the patent office must be submitted without delay. The written approval of the Swedish Energy Agency must be obtained in each individual case if the beneficiary wishes to delay publication for reasons other than those stated above or refrain from publishing certain results.

All presentations of the project must state that the work has been conducted with the support from the Swedish Energy Agency (when presentation is held in Swedish, the name should be reproduced as Energimyndigheten).

§ 7 Rights to results

The beneficiary or the rights holder of the results has the commercial right of use of the project results and is entitled to make available or transfer the rights to others.

If the rights to the project results are transferred to a company that runs economic activities, compensation corresponding to the market price for the rights shall be paid (only applies to universities and university colleges).

§ 8 Right to review

The Swedish Energy Agency or person/persons appointed by the Swedish Energy Agency (e.g. certified accountant) are entitled to follow-up the work and study documents that can provide information about the technical and economic development of the project. The Swedish Energy Agency is entitled to issue special instructions for reporting in order to enable the review.

In addition, the Swedish Energy Agency has the right to follow-up completed projects through requesting follow-up reports, that are to be structured and submitted in accordance with the Swedish Energy Agency's instructions. Such reports can be requested on three occasions within a ten-year period as of the day of the final report.

§ 9 Amendment to the decision

At the request of the beneficiary, the Swedish Energy Agency may grant well-motivated amendments to the project.

§ 10 Annulment of the decision

The Swedish Energy Agency may decide that unused funds shall be withheld alternatively that disbursed funds, that have not been used, shall be repaid if:

- a) the conditions for the project's financing have changed
- b) the project is not run according to the agreed project plan
- c) there is no prospect of achieving a satisfactory result within a reasonable timeframe (for example, due to significantly changed project or market conditions) or if the project's planned continuation cannot be considered secure (for example, due to insolvency in case the beneficiary is a company)
- d) the beneficiary fails to sign and resend a copy of the conditions appendix to the Swedish Energy Agency.

§ 11 Recovery of amounts paid

The disbursed grant along with interest rate of 8 % (eight per cent) above the applicable reference interest rate may be reclaimed with immediate effect if:

- a) the beneficiary does not provide the obligatory reports according to § 4
- b) the beneficiary uses the grant for purposes other than what is stated in the agreed project plan
- c) the project is not run according to the agreed project plan
- d) the beneficiary does not otherwise satisfy the obligations according to the conditions in this Appendix or the special conditions in the funding decision.

§ 12 Retention of grant

The Swedish Energy Agency is entitled to stop further payment of funds until a decision is made to refuse payment or to reclaim granted funds according to paragraphs 10 and 11. Such a stop to further payment of funds may affect payments to other projects administered by the same department, company or corresponding administrative unit, if the Swedish Energy Agency so decides.

§ 13 EU State aid rules

As a condition for aid, funding measures may be repealed or changed and the grant reclaimed if the European Commission through judgements which have entered into force or the Court of Justice of the European Union has found the aid to be unlawful pursuant to Article 107 of the Treaty on the Functioning of the European Union. The decision to repeal or change the funding measures is taken by the Swedish government. In this context the conditions for repayment of aid are determined in each individual case.

Consent pursuant to the Swedish Personal Data Act and concession to making information available.

The Swedish Energy Agency makes information about projects financed by the Agency available on the Agency's website: www.energimyndigheten.se. Here the

general public can search for information about on-going and completed research projects based on different keywords, such as research subject, research organisation, project title, project manager.

As the project manager and authorised signatory sign the conditions, the project manager agrees to publishing personal data (name and organisation), and the authorised signatory to non-confidential information and reports of the project, on the public domain on the Agency's website. The beneficiary is responsible for that the copyright holder has given its consent to this publication and shall ensure that the copyright holder is entitled to enter agreements in each individual case.

Public documents and secrecy

Essentially all post and e-mail sent to the Swedish Energy Agency become public documents. Among other things, this means that the public and mass media may request to view their contents. Official letters and decisions sent from the Swedish Energy Agency are also public documents. The right to view public documents is part of the Public Access to Information and Secrecy Act, and the Freedom of the Press Act.

However, the Swedish Energy Agency is not permitted to disclose information covered by secrecy in accordance with the Public Access to Information and Secrecy Act. This means that a document or certain information in a document may be protected by secrecy. A secrecy assessment is therefore made on a case-by-case basis before a document is disclosed.

Secrecy applies to information on an individual's business or operating conditions, inventions or research findings, for example, if it can be assumed that the individual will suffer damages if the information is disclosed.