

# Do you want to develop the cost-efficient, sustainable marine energy systems of the future?

If you have an idea and want to help contribute to a sustainable climate transition, you are welcome to apply for support for projects that aim to develop solutions and knowledge for the marine energy systems of the future

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## 1 Projects that contribute to the development of cost-efficient and sustainable marine energy systems can be supported

This call is open for project proposals within the following research areas<sup>1</sup>:

- Components, subsystems and prototypes for cost-efficient electricity generation
- Reliability and survivability
- Environmental impact of establishment, operation and decommission
- Improved establishment, operational and maintenance strategies
- Tests and demonstration of system in marine environment

The call includes the following areas of technology:

- wave power
- current power (ocean current/tidal stream)
- salinity gradient power
- ocean thermal energy conversion

The aim of this call for proposals is to contribute to:

- Continued development of cost-efficient, sustainable marine energy systems in Sweden
- A strong domestic value chain
- A greater degree of knowledge dissemination and collaboration (national and international)

### 1.1 Two different categories within which to apply for support

Projects can apply within two different categories:

#### *Category A - Applied research<sup>2</sup>*

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The project may contain industrial research and experimental development. The requirement is that the results from the project will benefit many and will be published.

See section 6 For what proportion of the project's costs can we be awarded support? below for possible levels of support for different actors.

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<sup>1</sup> See section 9.1 Focus areas further down in the document for a description of the different areas.

<sup>2</sup> Includes industrial research and experimental development, see section **Fel! Hittar inte referenskälla. Fel! Hittar inte referenskälla.** for a definition.

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The ambition is that one third of the Swedish Energy Agency's support within the framework of this call will go to category A.

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*Category B - Company-driven innovation and development projects, and demonstration projects and feasibility studies ahead of demonstration projects.*

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Applications within this category **must** include at least one company<sup>3</sup>. Projects *can* be run in collaboration between companies and non-financial actors such as, for example, universities or institutes.

For applications within this category at least half of the project costs that are eligible for support **must** originate in companies. See also section 6 For what proportion of the project's costs can we be awarded support? below for possible levels of support for different actors.

If the application considers development of a specific marine energy conversion concept or a component the application **must** include a business plan showing how the concept can be commercialised by 2030. This business plan **must** also include an electricity cost production calculation (including OPEX, CAPEX and energy absorption). It **must** be clear from the application how the project intends to reduce the electricity production cost, and by how much. This is done by completing the template "LCOE havsenergi" template, which is available on the call website. Fill in a version showing the estimated electricity production cost when the project starts and a version showing what the electricity production cost is expected to be after the project has been completed. Add these as annexes to the application. In connection with the final report we will request an updated electricity production cost calculation. For the development of individual components, it **must** specify how the electricity production calculation is affected.

**Please note the requirements specified above.**

The ambition is that one third of the Swedish Energy Agency's support within the framework of this call will go to category A.

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<sup>3</sup> The company must be a partner in the project group. Subcontracted companies or participants in the reference group are thus not included in this term.

The call for proposals does not include basic research or routine or regular changes to existing products, production methods, production processes or services.

Open access publication of results is encouraged and costs associated with this are eligible for support.

The project may start no earlier than 1 January 2021 and may proceed until 25 March 2024 at the latest.

## **2 Who can apply?**

Any actors who can contribute to the goals set out above can apply. These can be, for example:

- companies
- universities and colleges
- institutes

Projects where different types of actors (industry, academy or research institutes) collaborate are encouraged.

Gender equality and diversity shall be taken into account in the composition of the project group, when selecting project managers and in the implementation of the project, in its content, objectives and effects.

## **3 The project proposals will be assessed on the basis of the following criteria**

All applications submitted under this call will be assessed according to the following four criteria. The projects that best meet the criteria will be prioritised for support. You should therefore be careful to describe how your project contributes to the criteria in your application, as this information forms the basis for assessment. In addition to the following criteria, the Swedish Energy Agency will also weigh up the project against the Agency's project portfolio in the field of ocean energy and the composition of the projects submitted to the call before approving or rejecting the application.

### **1 Potential to contribute to the goals of the call for proposals**

- To what extent does the project contribute to the development of cost-efficient and environmentally sustainable electricity production systems with the prospect of being commercialised before 2030?
- To what extent does the project contribute to the existence of a strong value chain in the field of marine energy in which Swedish actors are linked together?

- To what extent does the project contribute to exchange of experiences and knowledge between relevant actors? This includes actors in different branches of industry and both within and beyond national borders.

## **2 A Scientific quality (only applies to projects in category A)**

- How does the project relate to the current state of knowledge in the field?
- Does the project contribute new knowledge or new experts to the research areas of the call?
- Is the project's implementation based on scientifically accepted methods?

## **2 B Level of innovation (only applies to projects in category B)**

- How unique is the new solution compared to other available solutions?
- What values can the new solution add?
- What is the new solution's potential for ground-breaking change?

## **3 Utilisation and dissemination**

- Is there an identified need for the project's results, e.g. a distinct knowledge gap or market potential?
- To what extent can the project be of benefit, e.g. through the building of knowledge, universality in scientific results and products produced, open data, publications, new goods, services or processes, commercialisation?
- Have the groups that are expected to benefit from the results of the project been identified, and will these have the opportunity to influence or participate in the project?
- Is there a plan describing how the results are to be utilised and disseminated?

## **4 Feasibility**

- Are the project's goals measurable, tangible, well-defined and reasonably ambitious?
- Is the proposed work plan practical and does it have a realistic time frame?
- Have potential risks to the project been identified and, if so, is there a plan to deal with them?
- Do the actors have the right competence and the right resources to implement the initiative?
- Is the budget reasonable in relation to the intended initiatives and goals?
- How well does the project manage equal opportunity, gender and diversity in terms of the composition of the consortium?

## **4 How to apply – start in good time**

Follow these steps to make the processing of your application proceed more quickly:

- Use E-kanalen<sup>4</sup> to write your application, select the “Marin energiomvandling” programme and then the call category that corresponds to the category within which you wish to apply.
- Start by applying for your personal authorisation to E-kanalen. Apply for authorisation in good time, as it can take a couple of days to obtain authorisation.
- Write in Swedish or English
- Always write a summary in Swedish.
- Write in such a way that someone who is not familiar with the subject can understand what the project is about.

There are step-by-step instructions describing how to submit an application in the “Lathund för E-kanalen” (you will find this in the bottom left-hand corner of the start page for E-kanalen).

Submit the application no later than **21 September 2020**. We offer support until 16:00 on that day.

## 5 What must the application include?

Write your application text in the fields in E-kanalen. The Instructions for the application contain more information about what the fields should contain<sup>5</sup>.

If the application is not written in English, the applicant should **attach a project description in English** of max. 5 pages to the application, including figures, tables and references. This is necessary so that international experts will have the opportunity to examine the project. This project description should contain a description of the purpose of the project, what results the project is expected to achieve and how it is to be implemented.

Category B applications **must** include a business plan showing how the concept can be commercialised by 2030. This business plan **must** also contain an electricity cost production calculation (see more information in section 1.1 Two different categories within which to apply for support).

## 6 For what proportion of the project’s costs can we be awarded support?

How much support each project participant can be given depends on, among other things,

- the scale of the participant’s costs that are eligible for support
- whether the participant is a non-financial actor or a company

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<sup>4</sup> There is a link to E-kanalen on the website for the call for proposals.

<sup>5</sup> There is a link to the Instructions on the website for the call for proposals.

- which research category the activities in the project are considered to constitute.

The Swedish Energy Agency's support within the framework of this call for proposals is approximately SEK 30 million.

Each project within the call for proposals may be awarded a maximum of SEK 7,000,000 in support.

### **6.1 Costs that are eligible for support**

You can receive support for the following costs, according to Commission Regulation (EU) No 651/2014 of 17 June 2014, Article 25.3:

- a) Personnel costs: researchers, technicians and other support staff to the extent that they work on the project.
- b) Costs of instruments and equipment to the extent and during the time they are used for the project. If the instruments and equipment are not used throughout the whole life cycle of the project, only the depreciation costs corresponding to the life cycle of the research project, calculated on the basis of generally accepted accounting principles, are considered eligible .
- c) Costs of buildings and land to the extent and during the time they are used for the project. In the case of buildings, only the depreciation costs corresponding to the life cycle of the research project, calculated on the basis of generally accepted accounting principles, are considered eligible. For land, the costs of transfer on commercial terms or actual capital costs are eligible.
- d) Costs of contract research, knowledge and patents that are purchased or rented from external sources on market terms, as well as costs for consultancy services and corresponding services used exclusively for research activities.
- e) Other general overheads and other operating costs, including the costs of material, storage supplies and similar products, incurred directly as a result of a project.

### **6.2 Support for non-economic activities**

Actors that do not carry out economic activities (such as universities, higher education institutions, municipalities and research institutes, to the extent that the work is carried out in non-economic activities) can be supported up to 100% of the actor's eligible costs in the project.

- Universities and higher education institutions may make a mark-up for indirect costs under the full cost principle they apply.
- Funding recipients that are not universities or higher education institutions and do not carry out economic activities may receive support for indirect costs of no more than 30 percent of their eligible direct costs for personnel (salary and payroll costs). This also applies if a funding recipient carries out both economic and non-economic activities, provided that the project is carried out in the non-economic activities.

Please note that the term “enterprise” shall be interpreted broadly and independently of legal form, financing or ownership (see 6.3 6.3Support for enterprises). What determines classification is the real activity of the organisation. If it can be concluded that there is an existing market for the services or goods provided and that there is at least one competitor, in Sweden or the EU, the activity is considered to be an economic activity and the beneficiary is thus considered to be an enterprise.

Where research organisations carry out activities such as assignment research, the provision of research services, the rental of equipment etc. to enterprises, this is considered to involve economic activity.

Research organisations sometimes conduct research projects in collaboration with enterprises. In the case of projects carried out in cooperation with enterprises, special conditions are laid down for support to the research organisations in order not to be regarded as government funding to the enterprises involved. Participating enterprises may not receive an improper advantage through the collaborative project and its contractual terms. For collaborative projects, indirect government funding to enterprises is considered to exist if the purpose of the project, the distribution of its risks and results are considered to be to the disadvantage of the research organisation.

### **6.3 Support for enterprises**

The proportion of an enterprise's eligible costs (the support level) that can be covered by funding from the Swedish Energy Agency is determined by the EU rules on government support. The support level is determined, among other things, by the research category that the various activities in the project are considered to correspond to and by the size of the enterprise that is to receive the support.

Every entity, irrespective of legal form, that carries out economic activity is regarded as an enterprise. Economic activity means providing goods or services on a market. Thus, entities carrying out a craft or other activity individually or within the family or groups or associations that are engaged in regular economic activity are considered to be enterprises.

Funding recipients that are enterprises (funding recipients that carry out economic activities) cannot be supported for indirect costs. This also applies if a funding recipient carries out both economic and non-economic activities, if the project is carried out in the economic activities.

#### **6.3.1 *The activities in the project are divided into research categories***

The maximum support level that an enterprise can obtain depends on the category of research that the activities in the project are considered to correspond to. The activities in the project can also be considered to correspond to several different research categories. The maximum permitted support level that an enterprise can

receive is laid down in Article 25 of Commission Regulation (EU) No 651/2014<sup>6</sup>. The different research categories are described in Table 1 below. The maximum support levels are then shown in Table 3.

If an enterprise that the Swedish Energy Agency grants funding to has received or is receiving funding for the project in the form of other public support (such as other government, regional or municipal funding), this funding must be taken into account when calculating the amount of support the enterprise may receive. Under EU rules, the *total* public support that the enterprise receives for the project may not exceed the maximum support levels set out in Commission Regulation (EU) No 651/2014.<sup>7</sup>

**Table 1. Classification of research activities in research and development projects<sup>8</sup>**

<b>Feasibility study</b>	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.
<b>Fundamental research</b>	experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any direct commercial application or use in view.
<b>Industrial research</b>	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.
<b>Experimental development</b>	<p>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</p> <p>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.</p> <p>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.</p>

<sup>6</sup> Commission Regulation (EU) No 651/2014 of 17 June 2014 through which certain categories of support are declared compatible with the internal market according to Articles 107 and 108 of the treaty.

<sup>7</sup> See Article 8 of Commission Regulation (EU) No 651/2014.

<sup>8</sup> The definitions are set out in Article 2, points 84 to 87 of Commission Regulation (EU) No 651/2014. There is a link on the call's web page.

### 6.3.2 *The amount of support depends on the size of the enterprise*

The maximum support level that an enterprise can obtain also depends on the size of the enterprise. If the applicant is a small or medium sized enterprise, the support level may be increased by 20 and 10 percentage points respectively, as laid down in Article 25 of Commission Regulation (EU) No 651/2014.

When assessing the size of an enterprise, account must be taken of the number of employees, annual turnover and balance sheet total. The size of an enterprise is defined according to Table 2. For example, in order to be classified as a medium-sized enterprise, it is necessary to have fewer than 250 employees and *either* the company's annual turnover *or* the balance sheet total is less than the amounts shown in the table below (i.e. EUR 50 million and EUR 43 million respectively). Also important for the assessment of the size of an enterprise is the enterprise's relationship with other enterprises, primarily the owner, and the degree of control exercised by other enterprises over the enterprise. This is described in Commission Regulation (EU) No 651/2014. See also the Commission's user guide on the definition of SMEs.

**Table 2. Definition of the size of enterprises<sup>9</sup>**

Size	Number of employees*	Annual turnover or balance sheet total**
<b>Small enterprise</b>	< 50	≤ 10 mill. €
<b>Medium sized enterprise</b>	< 250	≤ 50 mill. € or ≤ 43 mill. € respectively
<b>Large enterprise</b>	≥ 250	> 50 mill. € or > 43 mill. € respectively

\*) Employees refers not only to wage earners but also to owners working in the company without being employees and to consultants in a position of dependence on the enterprise.

\*\*) Information from the last approved financial year is taken into account. In order for a threshold to be considered to have been passed, the company must have had higher or lower figures for two consecutive years.

The table below shows the maximum support level that can be provided to actors for research and development projects. However, the Swedish Energy Agency may grant a lower support level.

**Table 3. Overview of maximum support levels**

Type of research and development	Small enterprise	Medium sized enterprise	Large enterprise	Non-economic actors*
<b>Feasibility study</b>	70%	60%	50%	100%
<b>Fundamental research</b>	100%	100%	100%	100%
<b>Industrial research</b>	70%	60%	50%	100%
<b>Experimental development</b>	45%	35%	25%	100%

\*) For example, universities and research institutes.

<sup>9</sup> Commission Regulation (EU) No 651/2014, Annex 1, Article 2. There is a link on the call's web page.

### 6.3.3 *Supplements to support levels*

A supplement of not more than 15 percentage points may, under certain conditions, be provided when the project constitutes effective collaboration<sup>10</sup> between enterprises or between enterprises and organisations for research and the dissemination of knowledge, where the project relates to industrial research or experimental development. In order for such a supplement to be given, certain special conditions must be met.

In collaboration between enterprises, at least one of the enterprises must be an SME unless the project is implemented in at least two EU Member States.<sup>11</sup> None of the enterprises may account for more than 70 per cent of the eligible costs.

In a collaboration between an enterprise and one or more organisations for research and dissemination of knowledge, the research organisation must have the right to publish its own research results. The research organisation must also account for at least 10 per cent of the eligible costs.

If the project does not constitute such a collaboration, a supplement of not more than 15 percentage points may nevertheless be provided if the results of the research project, which relate to industrial research or experimental development, are *widely disseminated* through conferences, publications, open databases or free or open software.

The supplement for SMEs may be combined with the supplement for effective collaboration or with the supplement for wide dissemination. However, the support level may never exceed 80 per cent of the eligible costs.

### 6.3.4 *De minimis aid*

Financing can also be provided to enterprises through so-called de minimis aid. Where support is provided in the form of de minimis aid, the conditions laid down in Commission Regulation (EU) No 1407/2013 of 18 December 2013 on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to de minimis aid (EUT L 352, 18.12.2013, p. 1).

As a general rule, de minimis aid may be granted up to the equivalent of EUR 200,000 over a three-year period. To an enterprise that performs road freight transport on behalf of others, de minimis aid may be granted up to the equivalent of EUR 100,000 over a three-year period. In connection with the application, the enterprise must therefore provide a certificate to the Swedish Energy Agency of all other such aid received by the enterprise in the last three years.

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<sup>10</sup> Effective collaboration, according to Article 2, point 90 of Commission Regulation (EU) No 651/2014 refers to collaboration between at least two independent parties to exchange knowledge or technology, or to achieve a common objective based on the division of labour where the parties jointly define the scope of the collaborative project, contribute to its implementation and share its risks, as well as its results. One or several parties may bear the full costs of the project and thus relieve other parties of its financial risks. Contract research and provision of research services are not considered forms of collaboration.

<sup>11</sup> Or in a Member State and in a country which is a Contracting Party to the EEA Agreement.

#### **6.4 Co-financing**

The part of the eligible costs of the project not covered by support from the Swedish Energy Agency is referred to as co-financing. This may for example be

- working hours
- cash
- experimental costs

Co-financing in forms other than cash shall consist of actual and auditable costs incurred during the project period.

Note that the Swedish Energy Agency may impose higher requirements for co-financing of the costs of recipient enterprises than required by Commission Regulation (EU) No 651/2014. The Swedish Energy Agency may also require co-financing of non-economic actors to which the agency grants support according to the letter of appropriation for the Swedish Energy Agency (e.g. universities, higher education institutions, municipalities and research institutes).

Public funds may not be included in the co-financing of the costs incurred by an enterprise. An example of this is co-financing from an actor whose activities are to some extent financed by, for example, the use of municipal or government funding. If the actor co-finances part of the enterprise's costs, the enterprise may not count the part that consists of public funds in its eligible costs.

For non-economic actors, public funds, such as a university's framework appropriations, can be used as co-financing.

#### **6.5 International activities**

The Energy Agency is restrictive in providing research funding to actors without operations in Sweden. This can be granted in exceptional cases if all of the following criteria are met:

- 1 It can be proven that the actors without operations in Sweden have a unique competence that does not exist among actors in Sweden.
- 2 The project is essential for achieving the programme objectives.
- 3 There can be a clear transfer of knowledge to actors in Sweden.

The Energy Agency may refuse funding to actors with no operations in Sweden even if all of the above criteria are considered to be fulfilled.

## **7 What happens after I have submitted our application?**

Your application is assessed by a programme council and, if necessary, by foreign experts. It is the version of the application you submitted before the closing date of the call for proposals that is assessed. We do not approve supplements after the

application deadline, apart from those that we have specifically requested. The expert group has an advisory role to the Swedish Energy Agency.

The Swedish Energy Agency may request that you submit a supplement to the application if we find reason to do so.

The Swedish Energy Agency performs a credit check on companies that apply.

Based on the above, as well as on the Swedish Energy Agency's own assessment of the extent to which the project meets the call criteria and a weighing up against the Agency's project portfolio in the field of marine energy, the Agency will reach a decision to either approve or reject your application. This decision will be made at the earliest in the end of November 2020, shortly after which you will be notified about the decision we have reached and the reasons for doing so.

## **8 If you are granted aid**

In order for aid to be disbursed, an authorised representative for the beneficiary (e.g. authorised signatory) must confirm that it has taken note of the Swedish Energy Agency's decision and that it accepts the conditions for the aid.

Disbursement of the aid is done according to a payment plan which is described in the decision sent to you. For more information about payment, see the terms attachment accompanying the decision concerning your aid.

## **9 This call for proposals is part of the Marine Energy Conversion 2018 -2024 programme**

Marine Energy Conversion 2018-2024 is based on the Swedish Energy Agency's [Marine Energy Strategy](#), which was adopted in spring 2017. The vision for the programme is that marine energy concepts developed in Sweden contribute to the transition to a global, sustainable energy system. This takes place through research into and the development of technologies, systems and questions relating to the production of electricity from the sea.

The programme includes wave power, current power and salinity gradient power. The focus is on technologies with the potential for commercialisation before 2030. The programme is therefore expected to have a strong focus on the first two technologies, i.e. wave power and current power, as these are believed to have achieved a degree of maturity that makes commercialisation possible within this time frame.

The goals for the programme can be summarised in three categories: goals for a continued development of cost-efficient, sustainable marine energy systems in Sweden; goals for a stronger value chain in Sweden that includes new actors; and

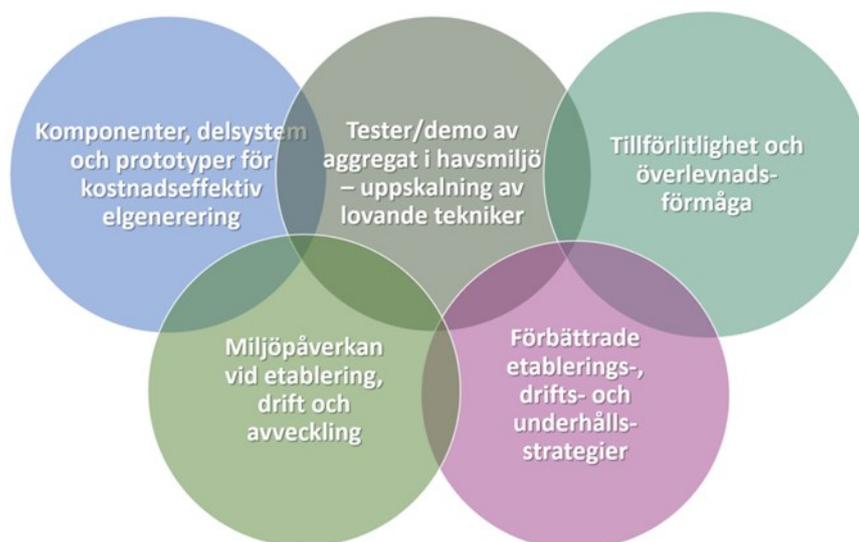
goals for a high degree of knowledge dissemination and collaboration, both within Sweden and internationally.

The investment within the Marine Energy Conversion 2018-2024 programme totals SEK 105 million. An annual call for proposals is planned at least for the first three years. In the event of a decision to extend the programme, there may be additional call for proposals. In addition to this, additional calls for proposals may be added within the framework of the Swedish Energy Agency's international partnerships.

Initiatives within the programme are targeted at the five focus areas designated in the strategy (see below).

### 9.1 Focus areas

The programme has five identified areas of needs (see Figure 1): development of components, subsystems and prototypes for cost-efficient electricity generation; improved reliability and ability to survive; increased knowledge of environmental impact; improved establishment, operational and maintenance strategies and the testing and demonstration of systems in the marine environment. These are not ranked in any order of precedence and are described below.



**Figure 1. Focus areas**

#### 9.1.1 *Environmental impact of establishment, operation and discontinuation*

The sea is already under great pressure from human activities, which places strict demands for responsibility when establishing activities in the marine environment. For the credibility of the marine energy industry, and as marine energy is to some extent competing with other renewable energy technologies, it is important that it has as little environmental impact as possible. It is therefore appropriate for

businesses and government agencies to assume responsibility for guaranteeing sustainable installations that minimise the environmental impact. There is currently limited knowledge of the impact that different kinds of energy conversion farms will have on their environment. For example, the industry needs to build up more knowledge about noise from marine energy systems and its impact on the marine environment. The systems also need to be able to handle fouling from, for example, algae and barnacles. More studies are also needed into electromagnetism, material properties and the risk of emissions, as well as the environmental impact of these aspects. The environmental impact also includes the interaction between marine energy conversion technologies and the marine ecosystem, such as fish and seals. Additional aspects that need to be considered are scaling up and accumulated effects of marine energy systems, as well as the methodology for monitoring, assessing and evaluating the environmental impact, e.g. through life cycle analyses. The studies conducted within the programme aim to build up knowledge that can provide base data that may support permit processes and processes involving the production of marine plans. This might mean, for example, identifying which interests can be combined with each other and which will be in direct conflict.

#### *9.1.2 Reliability and survivability*

To secure the marine energy industry's future competitiveness in the global energy system, it is crucial to be able to display a high level of survivability and reliability of technologies, while at the same time achieving a significant cost reduction for electricity production. Aspects that affect the reliability and survivability of marine energy conversion systems are robustness, maintenance requirements, storm strategies and subsystems such as anchoring, foundations and fastening. The challenges bring increased knowledge requirements in the field of reliability modelling, as well as design, testing and monitoring of systems, subsystems and components.

#### *9.1.3 Components, subsystems and prototypes for cost-efficient electricity generation*

The marine energy industry is characterised at present by a number of different concepts that are in different stages of maturity. It is likely that the market will be consolidated in future, and the number of different concepts will be reduced to a few. It is therefore important at an early stage to study the energy conversion performance for different wave and current power technologies, as well as salinity gradient power technologies, by means of modelling (e.g. with the aid of generic models), designs and prototypes. Subsystems and components are also an important cost factor and need to be developed and tested. These may, for example, be subsystems for power transmission of control and monitoring. There is also a need for greater knowledge in the scaling up of individual units in a

concept to farms. The development needs described here need to be processed with a strong link to financial models and calculations.

#### *9.1.4 Tests and demonstration of systems in marine environment – scaling up of promising technologies*

Experiences from several previous marine energy development projects have shown that the biggest challenges start to become evident when concepts are tested in an actual marine environment. Testing and demonstration in full-scale or part-scale of systems in a marine environment are therefore a key stage in the development of marine energy conversion systems. This makes it possible to test technical solutions in the relevant operational environment and to verify performance and previous results from calculations, tank tests or tests on land. This is crucial information to define performance specifications and cost calculations that are demanded by potential customers and investors. To avoid repeating earlier mistakes in marine energy development projects, it is important here to make use of experiences from other demonstrations.

#### *9.1.5 Improved establishment, operational and maintenance strategies*

The cost of installation, operation and maintenance is currently high, which limits the opportunities to quickly get down to low electricity production costs. To reduce the costs, solutions relating to installation methods and operating and maintenance strategies need to be developed and improved. Examples of this are the launching of smaller, cheaper vessels, modular systems that make maintenance possible at a different location, business models or maintenance strategies that utilise synergies with other sectors (oil/gas, wind power, etc.). There are also operational strategies that make it possible to achieve better energy extraction in farms and in different operational situations (for example in tidal waters). It is important to prioritise health and safety in connection with these activities, which means that risk analysis is also included as a necessary area.

## **10 If you have any questions**

We at the Swedish Energy Agency are happy to answer any questions about the call for proposals. We may not, however, make comments about project concepts and give recommendations, but can only answer questions about the actual call for proposals.

Bear in mind that a lot of phone calls are usually received on the last day on which the call for proposals is open, which means that it can be more difficult to obtain help then. The Swedish Energy Agency is only available for questions until 16:00, after which you cannot expect any help or support. We offer support until 16:00 on the day on which the call for proposals closes.

**Technical support for E-kanalen**

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**Other questions about the call for proposals**

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## Appendix

### **Conditions for granted projects**

The conditions that apply to approved projects will be evident from the Swedish Energy Agency's decision concerning the granted aid. A description of the conditions follows below.

### **General**

The Swedish Energy Agency's decision regarding aid is based on an agreed project and cost plan. The part of the costs not covered by the aid from the Swedish Energy Agency shall be borne with own resources or with funds provided by another financier. The beneficiary is responsible for financing cost increases that occur during the project period. The Swedish Energy Agency's decision regarding aid, which does not concern the current financial year's aid, only applies provided that the Swedish Energy Agency receives/has at its disposal requisite funds.

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

### **Section 1 Costs that are eligible for support**

#### ***General requirements***

Eligible costs means the costs incurred by the funding recipient in carrying out its part of the project. What costs are eligible in a project and the proportion of these costs that the funding recipient can receive support for depends on the basis on

which the Swedish Energy Agency has taken its decision on support. The grounds for support are set out in the Energy Agency's decision on support.

In order to be eligible, the cost shall:

- be reasonable and must have arisen for the implementation of the project,
- be actual and auditable, which means that they can be found in the recipient's accounts. For example, a recipient cannot be funded for work carried out without pay. Nor may the costs be estimated,
- be borne by the recipient, which means that a recipient may only include its own costs as entered in its accounts,
- be determined in accordance with good accounting practice, and
- have arisen in the project and during the project period set out in the decision on support. Costs incurred before or after the project period specified in the decision are not eligible.

In the accounts, the project costs shall be accounted for in such a way that they are distinguishable from the organisation's other transactions.

### ***Payroll costs***

#### *Direct costs*

Direct costs for personnel (salary and related costs) shall be recognised as payroll costs to the extent that these persons work in the project. Related costs refers to social contributions according to law, compulsory pension provisions, compulsory insurance and contributions, as well as holiday pay. Since the payroll costs must be auditable, the funding recipient must report the hours worked in the project. Note that the payroll costs shall be real. They must not therefore be estimated or a flat-rate.

For universities and higher education institutions, the full cost principle that they apply applies.

For all other funding recipients, i.e. which are not universities or higher education institutions, payroll costs should be differentiated in terms of personnel category.

However, the following ceiling amounts apply to payroll costs unless otherwise stated in the Swedish Energy Agency's decision on support:

Category 1 - Senior salaried staff and senior researchers: a maximum of SEK 825 per hour

Category 2 - Technical staff: a maximum of SEK 550 per hour

Category 3 - Routine tasks: a maximum of SEK 300 per hour.

If the payroll costs are lower than the ceiling amount for the applicable category, the lower amount (i.e. the actual payroll cost) shall apply.

#### *Indirect costs*

Indirect costs (overhead costs) are general costs that do not arise as an immediate result of the project during the project period. This applies to salaries and fees to staff who do not work specifically on the project, such as staff working on finance or administration that are not project-specific, but also remuneration to management functions such as the CEO and board members.

Universities and higher education institutions may receive funding for indirect costs under the full cost principle they apply.

Funding recipients other than universities and higher education institutions not engaged in economic activities (e.g. municipalities and institutions that are not engaged in economic activities) may receive funding for indirect costs of not more than 30 % of their eligible direct costs for personnel (salary and related costs). This also applies if a funding recipient carries out both economic and noneconomic activities, provided that the project is carried out in the non-economic activities.

Funding recipients that are enterprises (funding recipients that carry out economic activities) cannot receive support for indirect costs. This also applies if a funding recipient carries out both economic and non-economic activities, if the project is carried out in the economic activities.

### **Section 2 Payment of funding**

Payment of aid is made, unless otherwise stated in the decision, in the middle of project period for each budget year without previous order. Aid only covers value added tax when this occurs as net cost at the Beneficiary (only applies to universities and university colleges). Verifications for accounted expenditure items must, on request, be submitted to the Swedish Energy Agency. Funds that have not been used are to be repaid. Advances can be provided, at most 30 per cent of the total amount of aid (only applies to universities and university colleges). 15 per cent, or another percentage set out in the decision, of the granted funds can be withheld until final reporting in accordance with Section 4 has been submitted and approved by the Swedish Energy Agency.

**Section 3 Employer relationship**

The Swedish Energy Agency is not an employer or client of the funding recipient or any other who the funding recipient hires for the project. The Energy Authority does not therefore make deductions for taxes, social security contributions etc.

**Section 4 Notification obligation regarding financing**

The beneficiary is obliged to immediately notify the Swedish Energy Agency in writing, if funds for the project in the decision have been sought or granted from anyone other than the Swedish Energy Agency.

**Section 5 Reporting obligation**

Reports and surveys as set out below shall be submitted in accordance with the Swedish Energy Agency's instructions. If, in addition to this, special reports are required this is stated in the 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 department's and/or research team's complete activities.

***Progress report***

The progress report concerning the project's activities shall be provided at the request of the Swedish Energy Agency. This should include a description of the project's existing activities and results as well as a financial presentation. In addition, the Swedish Energy Agency can 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 decision.

***Financial accounts – only applies to companies***

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

***Final report***

The final report shall report the project result and contain a description of the project's implementation and the fulfilment of objectives. Furthermore, the report shall contain a summary of the project result 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 decision.

A financial final account shall be submitted no later than on the date stated in the decision using a specific form provided by the Swedish Energy Agency or collected from the Agency's website ([www.energimyndigheten.se](http://www.energimyndigheten.se)).

**Survey**

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

**Section 6 Changes**

Significant changes within the Swedish Energy Agency approved project and cost plan by must be reported in advance to the Swedish Energy Agency for analysis 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.

**Section 7 Publication**

The project result must 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 Swedish Energy Agency's written approval 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 of the Swedish Energy Agency (the agency name should be reproduced in English, Swedish Energy Agency).

**Section 8 Rights to results**

The beneficiary or the result's rights holder holds the commercial right of use of the project results and is entitled to make available or transfer the rights to another.

If the rights to the project 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 colleges).

**Section 9 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 calculated from the day of the final report.

#### **Section 10 Amendment to the decision**

At the request of the beneficiary with a motivation, the Swedish Energy Agency can grant well-motivated amendments to the project.

#### **Section 11 Annulment of the decision**

The Swedish Energy Agency can decide that unused aid shall be withheld alternatively that issued funds, that have not been worked up, 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 satisfied result within a reasonable time (for example, due to significantly changed conditions or conditions of competition) or if the project's planned continuation cannot be considered assured (for example, due to insolvency if the beneficiary is a company)
- d) the beneficiary fails to sign and resend a copy of the conditions appendix to the Swedish Energy Agency.

#### **Section 12 Recovery of amounts paid**

Amounts paid together with interest of 8 % (eight per cent) above the applicable reference interest can be reclaimed with immediate effect if:

- a) the beneficiary does not provide the prescribed reports according to Section 4
- b) the beneficiary uses the aid 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 appendix or the special conditions in the decision.

#### **Section 13 Retention of funding**

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 can include payments to other projects administered by the same department, company or corresponding administrative unit, if the Swedish Energy Agency so decides.

#### **Section 14 EU's State aid rules**

As a condition for aid, it applies that funding measures may be repealed or changed and the aid 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 Government. In this context the conditions for repayment of aid are determined in each individual case.

#### **Consent 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](http://www.energimyndigheten.se)). The general public can use the site to search for information about on-going and completed research projects based on different keyword searches, such as research subject, research organisation, project title and project manager. The beneficiary is responsible for any copyright holder having agreed to this availability and shall ensure that the copyright holder is entitled to provide consent in each individual case. Accompanying the Energy Agency's decision on the granting of funding is a consent form relating to making information available. By signing the document, the authorised representative of the beneficiary consents/does not consent to information – not subject to confidentiality under the Public Access to Information and Secrecy Act (2009:400) – included in the project being made available to the public.

#### **Consent for personal data processing**

The Swedish Energy Agency makes information about projects financed by the Agency available on the Agency's website ([www.energimyndigheten.se](http://www.energimyndigheten.se)). Accompanying the Energy Agency's decision on the granting of funding is a consent form relating to personal data processing. By signing the form, the project manager consents/does not consent to their personal data being processed by the Swedish Energy Agency in order to be made available to the public on the Agency's website. More information about how the Swedish Energy Agency processes personal data can be found on the Energy Agency's website ([www.energimyndigheten.se](http://www.energimyndigheten.se)).

#### **Public documents and confidentiality**

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 can request to view their contents. Official letters and decisions sent from the Energy Agency are also public documents. The right to view public documents is part of the principle of public access to official documents.

However, the Energy Agency is not permitted to disclose information covered by confidentiality 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 confidentiality. A confidentiality review 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.