Call: SamspEL

The Swedish Energy Agency is launching a new call for proposals within the research and innovation programme SamspEL, a programme in the area of smart grids. The available budget is approximately 30 million SEK. In this call, proposals within all research areas in SamspEL are welcome. The application deadline is 15 February 2017.

Application deadline:	2017-02-15
Available funds:	Appr. 30 MSEK
Funding decisions:	Preliminary mid-May
Project start:	June 1st – October 31st 2017

The aim of the programme is to contribute to the development of a renewable electricity system (the socio-technical system, its actors and the conditions for the system). The programme shall contribute to the development of a power system that is flexible, resource efficient and robust, value-adding for users as well as contribute to the development of Swedish industry in the area.

The call is open to all actors and stakeholders including, for example, social sciences and humanities departments as well as technology and natural science departments at universities, the public sector and companies or institutions related to the specified area. We particularly welcome problem-oriented and interdisciplinary projects where social sciences and humanities play a central role.

Project proposals to this call shall contribute to the challenges to achieve a completely renewable electricity system and may address any of the programme's research and innovation areas.

The call has an available budget of about 30 million SEK and offers funding for three project forms:

- **Innovation project/development projects** that contribute to implementation of new sustainable methods and processes, organizational changes and solutions (including technical).
  Funding: max 2 000 000 SEK, support max 50 %
- **Concept development/validation** on two levels within the scope of research and innovation:
  - Pre-studies: shorter preparatory projects, aiming to examine and verify the prerequisites for innovation-based solutions to be successfully realized.

- Pilot projects: projects with the aim to demonstrate innovation-based solutions in relevant environment and typically involve scale-up and validation of solutions in operational scale and environment, under operational-like conditions.
  Funding: max 4 000 000 SEK, support max 25 %

  For small and medium-sized enterprises the support level can be raised with a maximum of 20 or 10 percent respectively.

- **Academic studies**
  - Problem-oriented and interdisciplinary projects involving social sciences and/or humanities.
    Funding: max 4 000 000 SEK, support max 100 %
  - Technical academic research.
    Funding: max 4 000 000 SEK, support max 50 %, it is required that at least 40 % of the total budget should be contributed in cash by the non-public sector.

Projects granted funding must start between 1 January 2017 and 31 October 2017 and must be finished by 2020-12-31.

How to apply

The application may be written in Swedish or English. The text should be written so that someone who is not familiar with the subject can understand the scope and meaning of the project. An application in English must include a summary in Swedish.

Applications must be written according to the Guidelines for applicants and submitted through the Swedish Energy Agency's online application tool E-kanalen. Be sure to obtain user permission to E-kanalen in due time, it may take a few days.

The application shall describe the project's energy relevance and contain clear interim and final objectives. Objectives should be measurable where appropriate and formulated in such a way that they can be met during the duration of the project. Project description should also contain background and analysis of the state of the art knowledge, method description, cost estimate, summary budget and plan for dissemination of results. Special attention in the application should be given to plan for dissemination and communication activities during the project.

The Swedish Energy Agency is working to promote diversity and equality and therefore encourages the applicants to consider these issues when forming the project team, in the selection of a project manager, and during project implementation, content as well as in its objectives and effects.

The full application must be submitted by February 15, 2017.

Before the application is submitted to the Swedish Energy Agency, the applicant shall read:

- Full call text (in Swedish)

- Guidance for applicants (in Swedish)

- Regulation on state aid for research and development (Förordning (2008:761) om statligt stöd till forskning och utveckling samt innovation inom energiområdet, in Swedish)

Evaluation criteria

The following criteria will be used for the evaluation of applications in the call. The criteria may be more or less relevant for different projects, depending on the project type, and an appropriate selection will be used in the evaluation.

1. Potential for transition of the energy system

   - The degree to which the project contributes to a completely renewable energy system?
   - The degree to which the project contributes to a flexible and robust power systems?

- The degree to which the project contributes to a resource-efficient society?

2. Scientific excellence or innovation potential

- Does the project contribute to moving research forward?
- Is the project assessed to be of high scientific merit?
- Does the project include a new idea or innovation?

3. Implementation of results and dissemination

- To what extent can the project be of use, e.g. through knowledge development, publications, new products, services or processes, commercialization?
- Is there a plan for implementation of results and dissemination?
- Is there an identified need for the project results, for instance a clear knowledge gap or market potential?

4. Programme relevance

- Is the project in line with the vision and goals for SamspEL?
- Does the project complement other efforts within SamspEL, concerning balance between research areas, short as well as long term focus and risk?

5. Implementation

- Are the objectives of the project, measurable, specific, well-defined and reasonably ambitious?
- Is the suggested work plan specific and realistic time-wise?
- Do the actors have the right competence and the right resources for the implementation of the initiative?
- Is the budget reasonable in relation to the intended actions and objectives?

Decision on funding

The Swedish Energy Agency may request that you submit additional information to complement your application. The request may apply e.g. a demand for increased co-financing, changes in the project plan or a more detailed description of the project idea. Your application will be evaluated by an expert panel. Based on the evaluations, the expert panel will provide the agency with a priority list. Final decisions will be made by the Swedish Energy Agency and will preliminary be announced on May 19, 2017. You will then receive a notice from us about the decision and the reasons on which the decision has been based.

Programme background

SamspEL aims to support research and innovation, which contribute to the transition of the power system and development of the interaction in the power

system towards the programmme's vision, as well as to contribute to the impact objectives for the area. In addition, the programme intends to create prerequisites for effective co-operation with other initiatives and stakeholders with the potential to facilitate the work aiming towards the vision.

Vision 2050

Sweden's electricity system allows for a minimum of 100% renewable electricity with good security of supply and is carbon neutral, resource efficient and cost efficient.

Swedish consumers, prosumers, and producers of electricity are flexible actors in a well-functioning market, and take advantage of competitive prices.

Sweden is world leading in several areas in the electricity sector and co-produces knowledge, innovation and energy services to a global market. Very good cooperation and climate for innovation in the r & d area, nationally as well as internationally.

Objectives 2030

The programme should contribute to the following impact goals for 2030:

- Good knowledge and competence on the power system among the actors and decision makers in the electric power area have made Sweden a leading country in that resource-efficient development of the power system.
- Sweden's power system is flexible and reliable with high power quality and the grid is not a limiting factor for the amount of renewable energy being connected.
- Production and use of electricity as well as power flows in the Swedish grid can be predicted with high accuracy, both in time and in space. All electric production resources and the electricity use contributes with different power system services such as regulating power.
- New solutions have reached the niche market phase[1] and contribute to an efficient interaction between components and actors in the electricity system while being valuable for users. Neither the regulatory framework or market design is a limiting factor for the implementation of these solutions.
- Sweden has a prominent role in the research, development and demonstration of new products, services, methods and systems for tomorrow's power system and electricity market that also has the user focus. Sweden is world leading in the field of smart electricity grids, both as a global provider of products and services and as a research nation.

[1] Teknologiska innovationssystem inom energiområdet ER2014:31

The program is structured in three main orientations, with each part containing activities linked to the program objectives. The overall orientations are as follows:

- Academic research, PhD, senior researcher, e.g.:
  - Innovative
  - Industry-related
  - Interdisciplinary
- Industry/SME/public sector, e.g.:
  - Pilot projects
  - Innovation environments
  - Cross sectorial
- International cooperation

The orientations emphasize the focus of the program but a single project may grasp over more than one of the orientations. The programme's resources will be allocated between these three areas.

The programme comprises three research, development and innovation areas:

- Knowledge and competence for a resource-efficient development of Sweden's power system.
- New technologies, system services and market models that create added value for the actors in the electricity system.
- Leading Swedish R&D actors in a global market.

The programme is carried out as an internal programme within the Swedish Energy Agency over 4.5-year period, between 2016-2020. The total budget during the period is 173 MSEK. In the program's first call, in 2016, about 60 MSEK was granted to 17 different projects. Within the program there will be calls winter and summer/autumn, of which at least one per year with a broad scope. In addition to this, more specific calls may also be held.

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