

Publication of call for applications, 1 September 2010

Energy and Transport

Deadline for applications **1 November 2010** (17:00 CET)

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Introduction

The Nordic Energy and Transport Programme is launching a call for proposals for projects within electric transportation. Electric transportation is the first thematic call for proposals in the Energy and Transport Programme.

The Energy and Transport Programme under the Nordic Council of Ministers has the overall objective of contributing to the achievement of the Nordic vision of becoming "the Green Valley of Europe". The Nordic region should become a testing ground for sustainable transport solutions. The programme is operated by a board appointed by the Nordic Council of Ministers. The temporal demarcation of the programme is 3 years - from the beginning of 2010 until the end of 2012.

Transport accounts for 25 percent of global energy-related emissions of greenhouse gases, and over half of the world's oil consumption. Transport is therefore a very important component in solving the climate crisis. The Prime Ministers have agreed that the Nordic region should strive to become a world leader when it comes to the development of energy efficient and sustainable transport solutions.

The Nordic region has the potential to become a test-bed for sustainable transport solutions based on existing regional competencies within sustainable transport and a strong renewable energy sector. The well-functioning Nordic electricity market and the relatively low carbon footprint of the Nordic energy mix means that electric transportation in the Nordic region has a very low greenhouse gas intensity and a great potential for further development.

This call within electric transportation can be divided into three thematic areas:

- Technical aspects
- Framework conditions
- Business development

Applications for projects in the Energy and Transport Programme will be organised around these thematic areas. In each thematic area topics for projects are indicated.

Within the thematic areas, the Energy and Transport programme focuses on projects of common Nordic benefit, and projects that can generate added value in the Nordic region. As long as the formal criteria are met, the project application may include partners from institutions outside the Nordic region. The programme will only carry the costs of the Nordic partners.

The budget for this call is 12 MNOK for the 3-year period from 2010 – 2012. The Energy and Transport programme will publish further calls in other areas relating to sustainable transportation during the programme period. Potential applicants are welcome to contact the secretariat of the Energy and Transport programme in case of any questions not answered by the call text.

In this call text you will find a description of the three thematic areas, the instruments and the main criteria for evaluation. In general, projects are available through all three funding instruments in all thematic areas, where this is not the case it is specified in the text.

The deadline for applications is **1 November 2010**.

Strategic objectives of the call

1. The overall strategic objective of the call for proposals in this call is to identify and fund projects that contribute to the Nordic region strengthening its position in the development, testing and use of electric transport solutions.
2. The projects funded through the call shall increase the level of Nordic cooperation in the area of electric transportation – in creating new consortia, solving common Nordic problems or testing and implementing new technology and solutions in cooperation. Funded projects should, through creating of new consortia, foster cooperation between different actors such as researchers, industry, NGOs and public organisations.
3. The projects funded through the call should increase the knowledgebase in the Nordic region on electric transport solutions.
4. The projects funded through the call shall, based on their project activity, give recommendations to Nordic decision makers on how to strengthen cooperation in the field, and how to reach the programme's overall goal.
5. The programme activities in the Electric Transport focus area of the Energy and Transport Programme should complement the national and, in some respects, international initiatives in the field of electric transport development.
6. The call covers technical and societal issues.

Thematic areas

Technical aspects (ET 1.1.)

Introduction

Large-scale deployment of electric transportation solutions will be a major step towards a more sustainable transport sector.

If the Nordic countries are to succeed in becoming Europe's leading region for development, testing and use of electric transportation solutions, it will require the development of new technical solutions, in infrastructure as well as in vehicles. It will also require a successful implementation of existing knowledge and technology.

The thematic area "technical aspects" contains projects designed to strengthen the Nordic region's role in technology development, and has a particular focus on infrastructure solutions.

Background

In order to get more electric vehicles on the Nordic roads, development and implementation of technology and infrastructure for electric road transport is necessary.

The construction of a network of charging stations and other services require a holistic approach with active cooperation between public institutions, municipalities and companies, domestically and across national borders.

Topics

Applicants are encouraged to apply within, but not necessarily restricted to, the following topics:

Map database for charging infrastructure

Efficient electric transportation requires that there are enough charging points, that they are within reach of each other and that they are easy to find. Today there are some national map solutions that identify the charging points. Such a solution could be created on a Nordic level, and these systems should be developed to include booking solutions at the charging points.

Projects should include plans for a reservation system for the charging stations/ parking space and a possible payment system in their proposals. Projects should be implemented in collaboration with relevant industry partners. Projects can also use the map information to analyse potential blind spots in the Nordic charging infrastructure.

Funding in this area is limited to funding instruments A and B (see below).

Smart and fast charging

Large-scale deployment of electric vehicles and plug-in hybrid vehicles has the potential to create challenges for the electricity system, and/or drive prices up in the hours where demand is high. Various forms of intelligent charging can remedy this problem and facilitate electric transport systems that fit seamlessly into the Nordic electricity system. Intelligent Charging will make the system more flexible than the current system. Other smart solutions include battery swapping systems.

Fast charging of electric vehicles can make electric vehicles and plug-in hybrid much more versatile, and strengthen them in competition with traditional, fossil-fuelled vehicles. Ideally the charging times could be shortened so that the electric vehicle can be recharged in approximately the same time as filling of a petrol or diesel vehicle.

Possible projects include: assessment of the potential for fast charging in the Nordic countries, testing of solutions for the Nordic countries, roaming and payment solutions and the impact of electric vehicles on the Nordic electricity system.

Electrification of other transport than road transport - ferries and offshore commercial traffic

To achieve a more sustainable transport sector, efforts are required in several areas of transportation and electrification is possible in several types of transportation. Ferries and other short-haul shipping are particularly interesting in this context. For these transportation types projects in all funding instruments (see below) have the potential to get funded. Other commercial transportation may also be suitable for electrification.

Projects for inner-city electric freight transport

There is a big potential for electrification of smaller distribution vehicles used in densely populated areas. In terms of noise, local pollution and fuel efficiency the electric engine has significant strengths compared to the internal combustion engine. Freight transport is rapidly growing. In cities where the distances travelled per day is smaller, changing to electric transport for short distance freight transport could be feasible. When it comes to vehicles owned by the public institutions an interesting aspect of this is the public procurement.

Contact information

For questions about this thematic area, contact Adviser Emma Petersson

E-mail: emma.petersson@nordicenergy.net

Phone: +47 9026 8446

Policy and framework conditions (ET 1.2.)

Introduction

Moving in the direction of a more sustainable transport sector in the Nordic region requires cooperation between governments, industry and consumers. Enabling a shift in the technology we use to transport goods and persons, i.e. a large scale roll out of electric vehicles, replacing petroleum as the dominant fuel in combustion engines and finding new ways of integrating our transport system, will require governments to create framework conditions conducive to that effect. Tax schemes, regulations and other incentives to promote electric transportation need to be evaluated, strengthened, and in some cases, new regulations might need to be implemented to send the right signals to the Nordic market, and create sufficient stimulus to industry and consumers.

Background

Increasing learning from experiences in the various Nordic countries and building on those experiences is paramount in moving forward in this area. To know where one is going, it is also necessary to know where one has been, therefore the programme Energy and Transport also wish to look at the past efforts to increase the use of various sustainable fuels and engines in the region – both Nordic and national initiatives.

Topics

Applicants are encouraged to apply within, but not necessarily restricted to, the following topics. In this field the programme are open for projects covering all three topics listed below.

Lessons learned and evaluation of Nordic efforts for sustainable transportation (Cross cutting)

For decades the different Nordic governments have had various incentives and initiatives in place to foster the use of more sustainable modes of transportation, notably initiatives to promote electric vehicles, hydrogen vehicles and the use of bio-fuels. The Energy and Transport programme welcomes project applications for evaluation of the performance of the past initiatives in all of the Nordic countries, and projects that can enable us to better learn from those experiences. This thematic area is cross cutting, in the meaning that it is not restricted to electric transportation.

The programme also welcomes applications for projects that evaluate our current position, looking at how the current initiatives are working relating to the development of markets for sustainable transportation, ensuring energy efficiency and development of sufficient infrastructure.

Policies and potential benefits from harmonisation of incentives and regulations

To facilitate the development of a Nordic market for electric transport solutions (and sustainable transport in general) the potential for harmonising support mechanisms, regulations and incentives should be investigated, as should the potential benefits from such a move.

The Energy and Transport programme welcomes applications focusing on analysing the potential for harmonising support mechanisms and incentives for electric transportation in the Nordic region from the perspective of creating critical mass and a Nordic market for electric transportation.

Barriers and opportunities

Large scale roll out of electric vehicles and building a Nordic market for electric transport may yield a range of opportunities for the Nordic region. However, getting there also require overcoming some barriers and challenges, these barriers may vary between different technical solutions and between different kinds of users. In this topic the programme welcomes applications for projects focusing on identifying and analysing the main barriers for large scale roll out of electric vehicles. In general, barriers and opportunities to be analysed could include:

- Information to customers and users on available choices in vehicles and services
- Battery handling when the car is to be discarded
- Costs of the car and technology risk sharing
- Implementation time of electric transport solutions
- Spatial planning consequence of implementation of electric transportation

Relevant projects should also include advice for Nordic stakeholders on how to overcome the barriers.

Contact information

For questions about this thematic area, contact Special Adviser Amund Vik.

Email: av@nordicenergy.net

Phone: +47 91608347

Business Development in Electric Transportation (ET 1.3.)

Introduction

In this thematic area the Energy and Transport programme aims at taking a closer look at the challenges of establishing a Nordic market for electric transportation.

In the context of this thematic area applicants are encouraged to address one of more of the issues mentioned below in their project proposals. It is important to note that the consumer in the topics indicated below includes municipalities, fleet owners and other professional buyers, as well as private citizens.

Topics

Applicants are encouraged to apply within, but not necessarily restricted to, the following topics:

Business Model Design - Nordic Electric Transportation

A global shift from fossil fuel-based transport to electric transport is complicated. A business model usually starts from the vantage point of coming up with a compelling customer value proposition. Who is the customer and what needs are being addressed? What is the benefit of the offering compared to existing offers? And what is the competition? A next step involves deciding on which key resources and key processes to apply. The profit formula is yet another important component. Profit formula is the economic blueprint that defines how the company will create value for itself.

The Energy and Transport programme welcomes proposals that look into how to develop a 21st century business model design for Nordic electric transportation.

Creating Critical Mass for Nordic Electric Transportation Solutions

Critical mass refers to another part of the equation of building a Nordic electric transportation system. Namely, how to come up with an electric transportation solution that is sufficiently attractive to a large number of users to make it viable to engage in for business?

To achieve the desired number of electric vehicles on Nordic roads, securing access to an adequate number of electric vehicles is necessary. Individually the Nordic countries represent small markets. Through joining forces in fleet purchases across the Nordic region and building a joint marketing campaign for the region the Nordic countries may strengthen their position vis-à-vis large vehicle manufactures. The fleet owners and public procurement officers can benefit from increased cooperation through better learning from experiences in other Nordic countries, and cooperation around development of quality specifications.

The Energy and Transportation programme welcomes applications within cooperation between municipalities and other fleet owners in fleet purchases and projects focusing on marketing of the Nordic region towards international and Nordic car companies. The programme also welcome projects that specifically look at the potential for cooperation in the development of quality specifications for fleet purchase of electric vehicles. Furthermore, projects focusing on testing of electric vehicles for Nordic conditions are encouraged. Applicants for projects testing new solutions are encouraged to apply.

Contact information

For questions about this thematic area, contact Senior Innovation Adviser Jørn Bang Andersen

Email: j.andersen@nordicinnovation.net

Phone: +47 975 40408

Formal requirements

- The proposed project team must consist of a consortium with at least three Nordic countries (Denmark, Finland, Iceland, Norway and Sweden).
- The formal applicant must represent an organisation based in a Nordic country (university/institution/company) with specified organisation number and an accountable person stated by name.
- The distribution of tasks/responsibility between the project partners must be appropriate and balanced.
- Senior personnel must have leading roles in the projects.
- All results in funded projects will be public.

Instruments and evaluation criteria

Instruments

Applicants are required to apply for funding through one of the following funding instruments.

Instrument A	Analysis and studies¹
Objective	The objective of the project should be to collect information in order to answer a given question. The question can be on different levels and aimed at different stakeholders, such as governments, business actors, consumers and research communities.
Eligible applicants	Applicants may represent research communities, consulting firms, business organizations and private or public organizations in the Nordic countries. The area of validity for the project question shall be the whole Nordic region.
Project duration	Up to 2 years
Maximum funding from the Energy & Transport programme	1 million NOK
Funding and key activities	Projects might be supported by a 100 %, but co-financing is desirable.

Instrument B	Testing and implementation of Nordic Transport and energy solutions
Objective	The objective of the project should be to: <ul style="list-style-type: none"> Promote testing and support implementation of innovative and more sustainable concepts, solutions or technologies in the Nordic region. And/or: <ul style="list-style-type: none"> Generate new constellations and cooperation between stakeholders who can contribute to development and implementation of new business models, strategic cooperation or value chain building. And/or: <ul style="list-style-type: none"> Contribute to a higher level of cooperation between local municipalities and the business sector regarding procurement, implementation and development of new solutions and concepts.
Eligible applicants	Applicants may represent research communities, companies, business organizations, municipalities NGO's and public organizations in the Nordic countries.
Project duration	Up to 3 years
Maximum funding from the Energy & Transport programme	4 million NOK
Funding	Funding up to 45 % (35 % for large companies ²) of project costs. "In kind contribution" is accepted as co-financing.

¹ For all projects it is presupposed an added Nordic value and a contribution to knowledge relevant from the perspective of the Nordic region.

² Large companies defined as companies with more than 250 employees or an annual turnover of more than 50 MEUR.

Instrument C	Nordisk Forum (Network projects)
Objective	The objective of the project should be to: <ul style="list-style-type: none"> - Create a forum for cooperation and discussion on a defined subject or question. And/or: - Establish new constellations of stakeholders and cooperation platforms for sharing of information and knowledge. Stakeholders might be research, industry, NGO's and public sector. And/or: - Arrange conferences and events.
Eligible applicants	Applicants may represent research communities, public or private companies, business organizations, NGO's and public organizations in the Nordic countries.
Project duration	Up to 3 years
Maximum funding from the Energy & Transport programme	1 million NOK
Funding	Funding up to 50 %

Evaluation criteria

General criteria for evaluation of applications

The instruments have different assessment criteria, which are presented in the table above. The following overall principles and criteria apply to all instruments:

- Relevance to objectives of the call
- Quality of the proposed projects, including competence of consortium and project management
- Feasibility of project plan
- Relevance and Nordic benefit for society, business and research communities
- Added value to national efforts through Nordic cooperation
- Building on Nordic strengths to promote the development and visibility of a competitive knowledge based Nordic region
- Dissemination plans including reporting of results throughout the funding period
- Evaluation plan
- Path to next step, how will the results be utilised
- Co-financing and industry participation

Specific evaluation criteria for different instruments

Instrument A, Analysis and studies

- Plan for collection of information.
- Grade of co-financing of the project.
- Relevance and novelty of analysis to the Nordic region.

Instrument B, Testing and implementation of Nordic Transport and energy solutions

- Plan for cooperation after the project period, exit strategy.
- Novelty and degree of innovation.

Instrument D, Nordisk Forum (Network projects)

- Project plan for a continuation of the work.
- Relevance of project participants.

On in kind contribution and eligible costs

In kind contribution is accepted as co-financing in the Energy and Transport Programme. See attachment 1 for guidelines for in kind contribution and eligible costs.

Application process

The application process will consist of one stage. Electronic forms for applications are to be used. The forms are available on www.nordicenergy.net/transport. In the forms applicants are asked to specify thematic area (ET 1.1, ET 1.2 or ET 1.3) and instrument (A, B or C). Evaluation of applications using instrument A and C will be evaluated by the board of Energy and Transport programme. Applications using instrument B will be evaluated by a panel of external international experts.

The timetable for the call procedure is shown in the table below:

Call opened – invitation for pre-proposals	September 2010
Last date for submitting applications	01.11.2010
Selection of applications to be invited to contract negotiations	End of November 2010
Projects start	December 2010

Contact information

Contact information to the secretariat for the Energy and Transport programme:

Special Adviser Amund Vik, av@nordicenergy.net, +47 916 08 347

Adviser Emma Petersson, ep@nordicenergy.net, +47 902 68 446

Senior Innovation Adviser Jørn Bang Andersen, j.andersen@nordicinnovation.net, +47 975 40 408

Senior Innovation Adviser Sigrídur Thormósdóttir,
s.thormodsottir@nordicinnovation.net, +47 915 76 577

Project assistant Hans Fridberg, [hf@nordicenergy.net](mailto:hfr@nordicenergy.net), +47 469 20 340

Visiting address:

Stensberggata 25, 0170 Oslo

Postal address:

Nordic Energy Research

Att: Amund Vik

Stensberggata 25

N-0170 Oslo

Norway

Attachment 1 Guidelines for eligible costs and in kind contribution

Eligible costs:

Personal costs

Projects personal costs can, at a maximum, be included according to the following:

- “full cost” (i.e. gross salary + social security benefits) + 20 %
- eligible gross salary is normal local salary level for the person involved in the project
- Maximum NOK 1000 per hour
- the responsibility for correct salary level is on the project leader and the leader of the participating organisation

Travel expenses

Expenses for project related travelling may be included as follows:

- direct costs in line with governmental rules of the home country
- travels according to most inexpensive way
- travel expenses are eligible without any extra surplus or overhead

Meeting costs

Direct costs for activities of this type are eligible as follows:

- costs for meetings, seminars and workshops
- real net costs for conferences (i.e. reduced with possible conference fees)
- the costs shall be on a reasonable level and without any extra surplus or overhead

Costs for equipment

Normally “investment” type costs for equipment are not eligible:

- smaller equipment costs may though, by exception, be accepted if the project results are directly linked to them
- these equipment costs shall in that case be clearly specified in the project plan and included in the original project budget and the later following – accounting
- possible costs for equipment are eligible without any extra surplus or overhead

Other costs

Costs in this category (for example costs for dissemination etc.) shall be clearly specified in the project plan, - budget and –accounting.

Calculation of value of own “in kind” financing

Personal

The value of the “in kind” input of the project participants is determined according to the same principles as described in connection to the eligible project costs.

Cash-input

Direct cash-input is noticed without any surplus.