

• COMPLETED

Centre for Environment-friendly Energy Research (FME)

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Application type: Research Centre

Funding scale: NOK 120 000 000-200 000 000

This call requires submission of a mandatory project outline:

Amount of funding presumed available for this call for proposals:

[Mandatory Project Outline Before Applying for Funding for Centre for Environment-friendly Energy Research \(FME\)](#)

up to NOK 1 280 000 000. Between six and ten centres will be awarded status as FMEs, with an allocation of between NOK 120 and 200 million per centre.

Application deadline:

Project duration: 60-102 months

15 November 2023, 13:00 CET

Relevant thematic areas for this call: [Energy, transport and low emissions](#)

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Target groups: Research organisations

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7 November 2023: The "Frequently Asked Questions" have been updated.

Important dates

08 Feb 2023: Webinar for applicants for this call

[Sign up here.](#)

04 Oct 2023: Date call is made active

15 Nov 2023: Application submission deadline

01 Jul 2024: Earliest permitted project start

01 Jan 2025: Latest permitted project start

31 Dec 2032: Latest permitted project completion

Purpose

The purpose of this call for proposals is to establish new Centres for Environment-friendly Energy Research. The centres will engage in research activity at a high international level in cooperation with user partners from trade and industry, the public administration and society at large. The centres' research should contribute to resolving important challenges in the energy and climate field and strengthen the innovation capacity of the Norwegian business sector.

SHORTCUTS

About the call

Who is eligible to apply?

Who can participate in the project?

What can you seek funding for?

Reporting and disbursement of funding

Relevant thematic areas

Energy, transport and low emissions

Practical information

Requirements for this application type

Assessment criteria

Administrative procedures

About the call for proposals

Funding is available for six to ten FMEs from the second half of 2024. The centres will replace the group of centres established in 2016 that will be discontinued in 2024.

- See [our presentation of the call](#) from the information meeting held 8 February.
- See [our presentation of the call](#) from the information meeting held 20 September.

See also the [most frequently asked questions about the call](#) for proposals (will be updated up to the application deadline).

What goals is the centre tasked with achieving?

The overriding goals of the FME scheme, and thereby also of the centres that

will be granted funding, are to help to resolve key challenges in the energy field, develop solutions for a low-emission society and strengthen the business sector's innovation capacity.

The centres' research must help to realise Norway's energy and climate targets for 2030 and 2050. It is important to also focus on a climate-neutral Europe, and security of energy supply will be an important field of research. The FMEs must conduct research on good utilisation of energy resources in order to ensure a sustainable energy supply to Norway and Europe, as this is crucial for achieving the climate and energy targets.

The centres to be established must take into account current energy research policies and Norway's national strategy for research, development and commercialisation of new climate-friendly energy technologies – Energi21.

The FME scheme aims to

- increase value creation and the innovation potential of businesses and public administration bodies that participate in the centres' activities, as well as in Norwegian society at large
- contribute to reducing national and international greenhouse gas emissions, ensuring more efficient use and transfer of energy and increasing production of renewable energy
- promote the development of research environments at the forefront of international research that form part of strong national and international networks
- highlight research results and promote a knowledge-based debate on environment-friendly energy

The grant application must state how the centre intends to contribute to achieving the objectives described in the call.

Applicants must familiarise themselves thoroughly with the basis for the call by reading the document [Requirements and guidelines – Societal and Industry-oriented Research Centre](#) (PDF).

The Norwegian-language call for proposals is the legally binding version.

Who is eligible to apply?

The call is open to approved Norwegian research organisations in binding cooperation with partners from other research organisations, trade and industry and the public sector.

See the list of [approved Norwegian research organisations](#).

Businesses, public administration bodies and other societal actors must participate as user partners.

Who can participate in the project?

Requirements relating to the Project Owner

- The Project Owner must be an approved research organisation.

- The research organisation defined as the Project Owner in the application form must have approved submission of the application.
- The Project Owner submits the application on behalf of all the partners.

Requirements relating to project management

- The project manager (centre director) must document experience of managing large-scale, complex projects.
- The project manager must be employed by the Project Owner or one of the partners.
- The application **must** include information about availability and how much time the project manager, work package leaders and, if relevant, other centre management staff are intended to spend on their tasks.

The project manager's and other project management team members' scientific expertise and suitability to manage the project will be assessed by a referee panel.

Requirements relating to partners

- The centre's research will be conducted by research organisations in binding cooperation with relevant Norwegian trade and industry partners, public administration bodies and other societal partners. For more information about cooperation and roles, see the document *Requirements and guidelines – Societal and Industry-oriented Research Centre*. You will find a link to this document in the section "About the call for proposals".
- The grant application must describe how the project incorporates the strategic objectives of all the partners.
- The centre must have three or more partners that are not research organisations and that provide funding to the project. These are described as user partners. The centre may also have international user partners. It must be documented how any international user partners will contribute to achieving the centre's goals.
- The centre must have at least one international research partner, and preferably more.
- All partners must actively contribute in planning, following up and disseminating the results generated by the centre and in ensuring that new knowledge is applied.
- The number of user partners per FME has increased and is consistently high. This places great demands on the organisation of the centre. We encourage applicants to differentiate between companies/entities that actively participate in research and companies/entities that primarily participate as "listeners", "problem owners" or similar. The former group may be given the status of user partners and be part of the consortium, while the latter group may have a looser connection to the centre and not be part of the consortium itself and the centre budget.
- The majority of the centre's board members and the chair of the board must represent the user partners.

What can you seek funding for?

Scope of funding

User funding that is part of the centre may not be used as business funding for other Research Council funded projects at a later date. This also applies to user financing that is provided during the centre period.

- You can apply for funding to cover the actual costs necessary to carry out the centre's activities. See the Research Council's website for detailed and important information about what to enter in the project budget.
- You can apply for NOK 120–200 million over an eight-year period. Three eighths of the Research Council's funding will not be paid until the last three years of the centre's period of operation. The funding for the last three years will be decided on the basis of the outcome of an evaluation halfway through the period.
- To ensure flexibility, it is a requirement that at least 10 per cent of the Research Council's funding is unappropriated from the third year onwards. For the final three years of the centre's period of operation, up to 25 per cent of the Research Council's funding may be unappropriated.
- Funding from the Research Council may be a maximum of twice the funding from user partners. Both cash contributions and the user partners' work effort (in-kind contributions) can be included in the user funding. A certain balance between the proportion of in-kind contributions and the proportion of cash contributions from the user partners will be an advantage.
- In addition to funding from user partners, the host institution and other centre research partners can also contribute own funding, but this is not a requirement. It is not possible to use funding from other projects funded by the Research Council as part of the funding from the host institution and research partners. The extent of any own funding from the research organisations is not a factor in the application assessment.
- Stays abroad for research fellows at the centre and stays for guest researchers in Norway must be covered within the project budget.
- Some of the funding from the Research Council can be used to establish the consortium starting from 1 July 2024. The start-up date of the actual research activity in the centres will be 1 January 2025.

Conditions for funding

The Research Council will not award funding that constitutes state aid under this call. The project is to be implemented by means of effective collaboration, as defined in the state aid rules:

“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.”

The following guidelines apply:

- Funding awarded to the research organisations participating in the centre is only to go to the organisation's non-economic activity. It does not, therefore, constitute state aid. The Research Council requires a clear separation of

accounts for the organisation's economic and non-economic activities.

- Undertakings may not receive aid to cover project costs. Industry stakeholders and others who are considered to be undertakings in the context of state aid rules will thus not be able to have any of their costs relating to participation in the centre covered.
- Ownership of project results must be regulated to ensure that undertakings participating in the centre do not receive indirect funding from participating research partners. Rights must therefore be regulated in accordance with the EFTA Surveillance Authority's guidelines on state aid for research, development and innovation, Section 28. This means that intellectual property rights arising from the project must be allocated to the different project partners in a way that satisfactorily reflects their work packages, contributions and respective interests.

The Research Council's requirements relating to allocations and disbursement of funding for the first year and any pledges and payments for subsequent years are set out in our **General Terms and Conditions for R&D Projects**, available in their entirety on the information page [What the contract involves](#).

If your project is granted funding, the following must be in place before you sign a contract with us:

- From 2022, all grant recipients that are research organisations or public sector bodies (Project Owners and partners) must have a [Gender Equality Plan \(GEP\)](#) available on their website. The requirement does not apply to the business sector, special interest organisations or the non-governmental sector.
- The Research Council requires full and immediate open access to scientific publications; see [Plan S – open access to publications](#).
- The Project Owner of projects that process data must prepare a data management plan in connection with the revised application. [You can find more information here about the requirements for data management plans in projects that are awarded funding from us](#).
- The Project Owner organisation is responsible for selecting which archiving solution(s) to use for storing research data generated during the project. This must be specified in the data management plan for the project.

Reporting and disbursement of funding

We will disburse the funding in arrears. For more information about funding, see the document "Requirements and guidelines – Societal and Industry-oriented Research". You will find a link to this document in the section "About the call for proposals". All reporting takes place electronically.

Relevant thematic areas for this call

Energy, transport and low emissions

NOK 1.2 billion for Centres for Environment-friendly Energy Research



Strategic priorities

The centres must be organised in a way that facilitates the possibility of co-determination by the various partners and that encourages interdisciplinarity and constructive interaction between the research communities. The centres must ensure that close cooperation between the business sector, public administration and research institutions is facilitated, and this must be described in the application.

An important feature of the FME scheme is for the centres to combine long-term research with an emphasis on the application of results both during and after the project period.

The long-term research in the centres is expected to contribute to innovation and value creation and to achieving energy and climate policy targets. All applicants must clearly explain how the centre will address open, long-term research.

The centres must have plans and procedures in place to encourage innovation and describe how they will define, map and follow up research results with innovation potential. All applicants must clearly explain how the centre will address innovation and commercialisation processes, for example by seeing the centre's activity in the context of other types of applications in the Research Council and other funding agencies.

International cooperation is central in the field of energy research. Cooperation through Horizon Europe is given high priority, and bilateral cooperation is also important. The FME scheme, with its duration and size, provides good opportunities for participation in international research cooperation for all centre partners. The centre must earmark sufficient funds for facilitating international collaboration, network collaboration and mobility. The centres must also be prepared to take on certain tasks for the Research Council related to international R&D collaboration. The application must describe the objectives of the international cooperation.

There will be a growing need for expertise in the energy field going forward. An important part of the centres' responsibilities is to educate doctoral and postdoctoral research fellows and to contribute to research-based education at master's degree level within the centre's thematic area.

Resources must be set aside and plans submitted for the dissemination work. We expect the centres to comply with the [Research Council's Policy on Open Science](#). It is important that all centre partners recognise the independence of

research and the centre's duty to participate actively in public debate, thereby communicating the knowledge from the centre to society at large.

In order to safeguard the added value created by organising research activities as a centre, sufficient resources must be set aside for administration and joint centre-building activities

The pace of technological development in the energy field is rapid, and the field is strongly influenced by political and societal changes. In the future, FMEs will face even greater demands to be able to deal with changes and new challenges. The application must describe what mechanisms the centre will have to be able to respond to changes and meet new challenges.

It is possible to apply for new FME status based on an existing centre. In such cases, it will be important that it constitutes an actual renewal of the centre and its research activity. This means, among other things, that you must make changes to the consortium by including new research partners and new user groups. You must also describe how the centre will build on the results and work methods of the existing centre and how you intend to further develop it.

It must be clearly stated what contributions are expected – also beyond the financial – from the user partners. It is important that trade and industry and other user partners are involved at an early stage in the work on the application, so that they can help shape the centre from the start.

Thematic priorities

The call is aimed at the entire thematic breadth of the area of environment-friendly energy. This means that it covers all the thematic areas included in Energi21 and the Portfolio Plan for Energy, transport and low emissions – the sub-portfolio for Energy and low emissions.

The Energi21 strategy document is Norway's national strategy for research, development and commercialisation of new climate-friendly energy technology and forms the basis for priorities in energy research. A revised Energi21 strategy was presented in June 2022, www.energi21.no. Energi21 is an important basis for the Research Council's assessment of the overall FME portfolio.

Energy transition involves societal changes and will have consequences for society at large, different groups in society, nature and the environment. The call applies to centres whose activities mainly focus on technology, but unless there are specific reasons to the contrary, all centres must integrate non-technological research relevant to the centre's thematic area into their portfolios. This will allow for multiple disciplines to be included, individually and/or in interaction with each other.

Examples include social, economic, environmental and natural sciences, legal, social-psychological and political research topics that are important for the energy transition.

Compared to other centre schemes, the FMEs are large. This indicates that the centre's thematic and professional scope should not be too narrow. This will allow for changes to be made to the centre during its period of operation to take account of, among other things, new or changed challenges in the energy field. The centres must emphasise a multidisciplinary approach. Centres are also a good instrument for research that looks at entire value chains.

We will consider the overall centre portfolio when we assess the applications. If, based on the quality of the applications, two centres within the same thematic area is an option, they must have a thematic and/or scientific profile that clearly distinguishes them from each other. In such cases, we will enter into a dialogue with the centres on how to resolve the situation.

Impact

The application must describe the centre's contribution to achieving the goals of the FME scheme. It is particularly important that you describe how the research in the centre will contribute to

- security of supply and efficient use of energy
- ensuring that Norwegian energy resources are utilised in a sustainable manner
- ensuring that Norway meets its climate targets for 2030 and 2050

This should be described and, if possible, quantified.

In addition, your application must describe

- how the centre will work to ensure that the research results will lead to innovation and value creation for trade and industry and the public administration
- the goals for the centre's scientific work; target figures for research fellows and publications must be quantified
- ambitions and plans for the dissemination of results and participation in public debate

Delimitation

The call is not open to centres that have a scientific overlap with the newly established centres in the field of wind power and hydrogen, cf. the separate calls issued for such centres in 2020 and 2021. Nor will it be possible to apply for an FME in the field of nuclear power.

Activities that duplicate other major ongoing projects, such as a

Norwegian Centre of Excellence (SFF), Centre for Research-Based Innovation (SFI) or PETROSENTER must be avoided, and adjacent activities must be coordinated. The same applies to other large, publicly funded projects (e.g. Collaborative and Knowledge-building Projects or Green Platform).



Relevant plans

Portfolio plan for Energy, transport and low emissions

Energy21 Strategy ↗

Requirements and guidelines – Societal and Industry-oriented Research

Practical information

Requirements for this application type

The application must be based on a mandatory project outline with a deadline of 10 May 2023.

You may revise and resubmit your grant application form multiple times up to the application submission deadline. We recommend that you submit your application as soon as you have filled in the grant application form and included all mandatory attachments. After the deadline, it is the most recently submitted version of the grant application that will be processed.

- The application and all attachments must be submitted in English.
- All attachments must be uploaded in PDF format.
- All mandatory attachments must be included.
- Requirements relating to the Project Owner (research organisation) must be satisfied.
- Requirements relating to the partners must be satisfied.
- A maximum of ten CVs can be submitted.

Mandatory attachments

- A project description of up to 20 pages in length. The project description must use the designated template which is available for download at the end of the call.
- the CV of the project manager (centre director) (maximum four pages), using the designated template found at the end of the call.
- the CVs of key project participants/work package leaders (maximum four pages), using the designated template found at the end of the call:
 - Researchers submitting a CV must use the “Template for CV researchers”.
 - Persons submitting a CV who do not work for a research organisation can use the “Template for CV”.
- Letters of intent from the Project Owner and all registered partners, i.e. both user partners and research partners. Letters of intent may be no more than three pages long and must be written in English. The letters must include the following:
 - The partner must confirm their intention to participate actively as a partner in the centre and describe how this will be done in practice.
 - The partner must give reasons for their interest in participating in the centre. How will the centre’s activities benefit the partner and create opportunities that would not otherwise arise without the centre?
 - What potential for innovation and sustainable value creation does the partner envisage from the centre’s expected results?
 - How can the research results be used?
 - The partner must summarise their contribution to the centre in the form of knowledge, expertise and, if relevant, funding, facilities and own efforts during the centre’s lifetime.
 - The partner must describe their own long-term R&D plans and how this tallies with the centre’s strategic plans (strategic foundation).
 - The letter of intent from the Project Owner must also contain a confirmation from the management of the Project Owner’s organisation stating that it will accept the obligations that follow from a contract with the Research Council. The letter must also describe what part the centre will play in the Project Owner’s scientific strategy.

Applications that do not meet the requirements listed above will be rejected.

Optional attachments

- Proposals for up to five referees who are considered qualified to assess the application.

All attachments must be submitted together with the application. We will not accept attachments submitted after the deadline for applications unless we have requested further information.

We will not assess documents and websites linked to in the application, or other attachments than those specified above. There is no technical validation of the content of the attachments you upload, so please make sure that you upload the correct file for the selected type of attachment.

Assessment criteria

We assess applications in light of the objectives of the application type in question and on the basis of the following criteria:

Excellence

The extent to which the centre is ambitious, innovative and advances the research front

- Scientific creativity and originality.
- The extent to which hypotheses and research questions are innovative and courageous.
- The extent to which the centre has the potential to generate new knowledge that advances the research front, including significant development/renewal of theories, methods, experiments or empirical knowledge.

The quality of the centre's R&D activities

- The quality of research questions, hypotheses and the centre's objectives, and the extent to which they are clearly described.
- The extent to which the theoretical approach, research design and choice of methods are credible and appropriate, and interdisciplinary perspectives are sufficiently considered.
- The extent to which research conducted at the centre takes sufficient consideration of social responsibility, ethical issues and gender dimensions.
- The extent to which the centre satisfactorily addresses users/stakeholders' knowledge.

Impact

Potential impacts of the proposed research

- The extent to which the centre's planned results can contribute to addressing important scientific challenges, both now and going forward.
- The extent to which the centre's planned results can address important challenges in the sector(s), both now and going forward.
- The extent to which competence building and the centre's planned results will form the basis for value creation in the Norwegian business and/or public sector.
- The extent to which the centre's planned results are relevant to the UN Sustainable Development Goals or have the potential to address other important societal challenges, both now and going forward.
- The extent to which the potential impacts are clearly formulated and credible.

Communication and utilisation

- The extent to which the appropriate open science practices are implemented as an integral part of the proposed project to ensure open sharing and wide distribution of research outputs.
- The quality and scope of communication and involvement activities targeting relevant stakeholders/users.
- The extent to which partners are involved in the work of utilising the centre's results.

Implementation

Quality of the project manager (centre director) and project group

- The extent to which the project manager (centre director) has relevant expertise and experience and is qualified to lead an initiative of this scale.
- The extent to which the project participants complement one another, and the project group has the necessary expertise to effectively implement the centre initiative.

The quality of the centre's organisation and management

- The extent to which organising the research activities as a centre rather than separate projects gives added value.
- The extent to which the centre will be efficiently organised, including whether the resources allocated to the different work packages are sufficient and in accordance with the centre's objectives and deliveries.
- The extent to which the centre's tasks are distributed in a way that ensures all project participants have a clear role and sufficient resources to fulfil that role.
- The extent to which the management and governance of the centre are expediently organised, including risk and innovation management.
- The extent to which the partners contribute to the management and implementation of the centre.

The quality and extent of international cooperation

- The extent to which the scope and quality of international collaborative activities are in keeping with the centre's objectives.

Gender balance in the centre's project group

- If the gender balance in the centre's management team (centre manager and research managers) is poor, the extent to which there is an expedient plan in place for the centre to support the development of researcher talents of the under-represented gender to qualify for senior-level positions.

Relevance to the call for proposals

The relevance of the grant applications will be assessed in relation to the requirements and priorities set out in the call for proposals. Under this criterion, the grant applications will be assessed in relation to the extent to which

- the centre's activities contribute to achieving the objectives of the call for proposals and of the FME scheme, and support national energy strategies and plans;
- the centre's activities help to ensure interaction, division of work and broad participation in Norwegian energy research;
- the centre has a sound and strategic anchoring with the host institution and with important collaborating research organisations;
- the centre is adequately and robustly funded by user partners;
- the activities of the centre include good plans for coordination, division of responsibilities and commitments in the establishment and implementation of the centre;
- the activities of the centre emphasise the education of doctoral and master's degree students.

Under the fourth criterion, the application's relevance is assessed in relation to the requirements that apply to the application type and the thematic and

strategic priorities set out in the text of the call.

Where applicants are otherwise equally qualified, the Research Council will prioritise applications with female centre directors and centres with good female representation in leading positions.

Portfolio assessment

We will strive for a balanced project portfolio that covers the breadth of the areas described in the portfolio plan for Energy, transport and low emissions (sub-portfolio Energy and low emissions) and contributing to the implementation of the R&D strategy Energi21.

The marks awarded for the four main criteria will be decisive for which projects succeed in the competition.

Administrative procedures

Once the applications have been received, we will conduct a preliminary administrative review to ensure that they satisfy all the stipulated formal requirements. Applications that do not satisfy the formal requirements or thematic delimitations will be rejected. The same applies to applications that are not based on a project outline submitted by the deadline of 10 May 2023.

Approved applications will be assessed by a referee panel comprising scientific experts and experts with industry/social expertise of relevance to the thematic areas and disciplines in question. Assessments can also be obtained from external referees in order to assist the panel if required.

The referee panel will assess the criteria *Excellence*, *Impact* and *Implementation*. An overall mark is awarded for each of these criteria.

After the panel has completed its assessment, the Research Council will conduct an assessment of the relevance criterion.

The overall mark awarded to the application is based on the relevance criterion and the panel's assessment. The overall mark is calculated on the basis of the unweighted average of the four criteria.

The Portfolio Board responsible for the energy field will make a decision on the allocation.

Before signing the contract, we will, in cooperation with the Project Owner, ensure that the project meets the overall framework of the call as regards the composition of partners, resource allocation, plans etc.

See also: [Processing applications](#).

We expect to announce which applications have been awarded funding in April 2024.

Download templates



Template for Project Description - Societal and Industry-oriented
Research Centre FME 2023.docx



Template for CV researchers.docx



Template for CV.docx

* MANDATORY ATTACHMENT

[Download all templates](#) 

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