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Federal Department of the Environment, Transport, Energy and Communications DETEC

Swiss Federal Office of Energy SFOE
Energy Research and Cleantech

SWEET Call 1-2020

Call Guideline

The call for proposals will close on Monday, 12 October 2020 (12 noon Central European Summer Time / CEST).

sweet swiss energy research for the energy transition

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1 Purpose of the guideline

This document is the guideline for submitting a proposal for SWEET (Swiss Energy research for the Energy Transition) funding.

The audience of the guideline are applicants who intend to submit a proposal for funding of a consortium.

The guideline's purpose is:

- To inform applicants about the objective and scope of the call, and the impact that is expected to be delivered by successful consortia;
- To inform applicants how to submit a proposal for funding a consortium that intends to answer one of the research challenges described below;
- To describe the process after submission of proposals up to the contracting phase and inform applicants about the evaluation process;
- To inform applicants on the contractual relationships that need to be established once successful proposals have been selected for funding; and
- To describe in broad terms the monitoring and reporting requirements during the contractual period of the consortium.

Note: This documents contains many abbreviations and special terminology. Readers are encouraged to consult the **glossary of terms**.

2 Introduction – SWEET[1]

SWEET[2] (SWiss Energy research for the Energy Transition) is a funding programme owned and managed by the Swiss Federal Office of Energy (SFOE). The purpose of SWEET is to fund trans- and interdisciplinary[3] research and innovation activities with a focus on Switzerland's energy strategy 2050[4] and thus also on the country's climate policy goals[5]. SWEET targets research and innovation in the domains of energy efficiency, renewable energy, storage, networks, and security and safety of critical energy infrastructures.

Within those domains, the SFOE in collaboration with the Federal Energy Research Commission CORE set the first guiding theme in the domain of renewable energy: "Integration of renewables into a sustainable and resilient Swiss energy system" (Chapter 3). Domains such as energy efficiency or infrastructures are likely to be the focus of future calls. The SFOE subsequently invited the Swiss research and innovation community to propose potential research topics, the answers of which would deliver significant progress towards the realization of the guiding theme. Those suggestions have served as input for the formulation of research challenges (Chapter 4). The research challenges are object of the present call for proposals for the establishment of consortia.

It is well understood that research in sciences and technology as well as in social sciences and humanities is necessary to generate breakthrough innovations for a successful implementation of Switzerland's energy strategy 2050. Moreover, such innovations require trans- and interdisciplinary approaches that also reflect the diversity of Switzerland's research community. The focus of SWEET lies on application-oriented research, innovation and implementation of research outputs that accelerate the transition to a sustainable and resilient Swiss energy system.

Within the framework of SWEET, the SFOE invites consortia to propose portfolios of interrelated research and innovation projects (Figure 2-1). Successful consortia will receive SFOE funding to pursue their projects over a 6 to 8 year period. During the term of a consortium, research challenges described in SWEET calls are to be addressed holistically by trans- and interdisciplinary teams working on a portfolio of projects that covers significant parts of the innovation system (Figure 2-2).

Pending Parliament's approval, the first funding decisions will be taken in early 2021. SFOE's funding is subject to the principles of subsidiarity. In the context of SWEET this means that partners forming a consortium contribute financially according to their abilities, with SWEET and other funding supplementing the need for financial resources to carry out the work programme of the consortium. Details are described in the chapter on funding rules (Chapter 5.5).

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[1] The text contains acronyms and special terminology. Readers are encouraged to consult the **glossary of terms**.

[2] Additional details on the institutionalization of the funding instrument may be found in the Federal Council's dispatch to parliament (available in 3 of Switzerland's official languages, **German, French and Italian**; the document is not available in English).

[3] A useful description of the complementarity of trans- and interdisciplinary research and innovation is provided on page 127 in a paper by Lawrance, R.J., "Deciphering Interdisciplinary and Transdisciplinary Contributions" Transdisciplinary Journal of Engineering & Science Vol: 1, No: 1, (December, 2010), pp.125-130.

[4] **https://www.uvek.admin.ch/uvek/en/home/energy/energy-strategy-2050.html**

[5] **https://www.bafu.admin.ch/bafu/en/home/topics/climate/info-specialists/climate-policy.html**

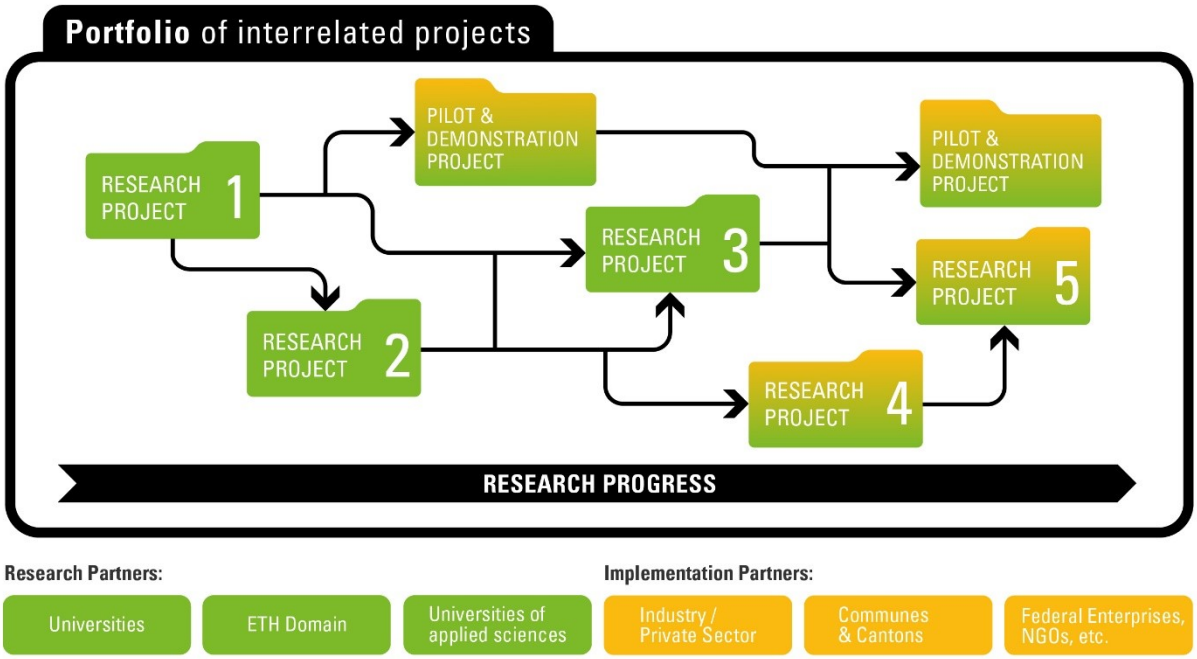

Figure 2-1: Schematic depiction of a portfolio of interrelated SWEET projects. Outputs of research and innovation projects lead to outcomes (e.g. additional research, pilot and demonstration projects, evidence-based input for policy development, new products and services) that are of interest to private and public entities.

SWEET consortia are managed by a host institution. Preference is given to cooperative consortia comprising researchers and implementers that cover the best possible range of institutions of the tertiary education sector, research institutes, the private sector (including enterprises affiliated with the Swiss Confederation) as well as the public sector such as cantons and communes. Such cooperative consortia achieve gender balance and reflect Switzerland's diversity in terms of languages and regions. It is expected that every member delivers unique and impactful contributions to the overall success of a consortium. Foreign institutions of higher education or public research institutions may also become consortium partners and receive SWEET funding, provided that it can be clearly demonstrated that the skills and competencies of foreign institutions are necessary for the implementation of the projects and cannot be fulfilled by Swiss applicants.

The core of the work programme of a consortium centres on the execution of interrelated research and development as well as pilot and demonstration projects (P+D); some projects may start as soon as a consortium is launched, while other projects may follow at a later stage as they build on the output of earlier projects. The initial set of projects of the envisaged portfolio of interrelated projects must be described in detail while later projects may be described more conceptually.

Given the expected energy and climate policy relevance and the expected impact on the implementation of Switzerland's energy strategy 2050, consortia will be closely accompanied by the SFOE with particular attention towards communication, dissemination and exploitation of the consortium's results.

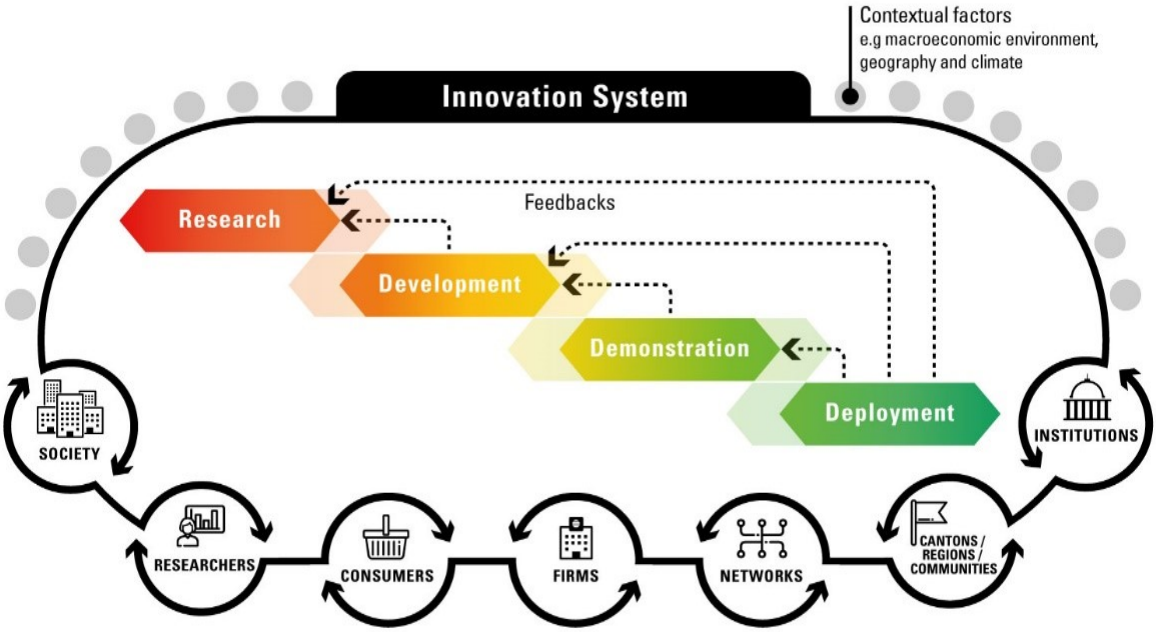

Figure 2-2: A representation of the innovation system[6]. SWEET consortia are expected to generate and exploit multiple feedbacks among the different stages of innovation and their interactions. The expected project portfolio supplies new knowledge from research, development and demonstration for a market place that demands innovations (deployment). Stages of innovation from research to deployment often overlap leading to a more efficient innovation process as well as offering more possibilities for learning, and knowledge and technology spill overs.

[6] Adapted from the IEA paper on “Technology Innovation Partnerships" (IEA, 2019), building on graphics and text sourced from GEA (2012), Global Energy Assessment: Towards a Sustainable Energy Future, Cambridge University Press, UK / New York; IIASA, Laxenberg, Austria.

3 Background – Guiding theme for SWEET Call 1-2020

The guiding theme for this call is “Integration of Renewables into a Sustainable and Resilient Swiss Energy System”. Renewable energy sources need to be integrated in Switzerland’s energy system in such a way that:

- supply remains assured,
- storage is available where and when necessary,
- energy conversion is efficient and carbon-neutral or net-negative, and
- the integration is of optimal value to Switzerland’s economy and society,

while facilitating resilience to possible disruptions and integration into the European energy system at large.

An energy system with a high share of renewable energy is a socio-technical system composed of a series of complex and intertwined elements: infrastructures, technologies, societal and behavioural aspects, economic and financial aspects, and regulatory aspects. These are constantly changing and adapting. Renewable energy sources have to be integrated in line with the principles of sustainable development, with the objective to meet the demand for heat, electricity and fuels in the principal sectors of final energy consumption (industry, services, households, and mobility). There are complex interfaces and multiple interdependencies among the sectors that require special attention to technical, economical, commercial, societal and regulatory framework conditions.

Switzerland needs to focus on renewable energy and its integration into Switzerland’s energy system. The share of renewable energy carriers that meet the energy demand of consumers has grown in absolute terms from 137 PJ in 2000 (16% of the total 847 PJ) to some 193 PJ in 2018 (or 23% of the total 831 PJ), and is likely to approach 24-25% by the end of 2020. Yet, fossil fuels continue to provide the lion share of energy carriers having only declined from around 70% in 2000 to around 63% in 2018.[7]

Apart from large hydropower plants whose growth has been stagnant, the share of renewables (excluding hydropower) in power generation has effectively quintupled since 2000 from a very low base of 850 GWh to more than 4’000 GWh in 2018[8]. Far from negligible, this growth contributes to maintaining a Swiss power generation fleet that, to the most extent, has a very low greenhouse gas (GHG) emission footprint. Going forward, conventional wisdom expects electrification using electricity supplied from renewable sources to provide a major part of the solution for decreasing GHG emissions from households, industry, transport, services and other smaller sectors of the economy. Consequently, the demand for electricity would increase substantially, growing the share of electricity in total energy consumption from around 25% today[7] to around 50% and maybe more by 2050.

Hence, Switzerland not only must continue to have a low GHG emission electricity supply but this supply has to indirectly contribute to the de-fossilization of the entire Swiss energy system. Even more challenging, the energy system needs to contribute its share of negative GHG emissions to realize a net-

[7] See SFOE Overall energy statistics (various years):
https://www.bfe.admin.ch/bfe/en/home/supply/statistics-and-geodata/energy-statistics/overall-energy-statistics.html

[8] See SFOE Swiss renewable energy statistics (various years):
https://www.bfe.admin.ch/bfe/en/home/supply/statistics-and-geodata/energy-statistics/sector-statistics.html

zero goal by 2050. Beyond 2050, the energy system may even have to contribute to a net-negative Switzerland. This is a tall order.

Reverting to the issue of GHG reductions, the per capita GHG emissions of Switzerland in 2017 amounted to 5.5 tons, having declined from 8 tons of CO_2 eq. per capita in 1990[9]. These per capita emissions need to be in the range of 2.5-3 tons of CO_2 eq. by 2030, to enable Switzerland to pursue a path towards net-zero emissions by 2050. Rates of GHG reductions need to effectively multiply, which requires major efforts owing to energy system's overwhelming GHG contributions.

There are multiple challenges that must be overcome to achieve a share of renewable energy in Switzerland's energy system that is compatible with country's sustainability, energy and climate targets. Here, Switzerland needs successful research and innovation to overcome the following challenges:

- While Switzerland has dedicated resources and efforts to increase the share of renewables from 16% to around 25% over 20 years, fundamentally new ways must be explored to integrate a much higher share of renewables over the next 20 years. Key to meeting this challenge is designing and transforming an energy system that is significantly more flexible across various sectors of economic activity and across a wide range of temporal and spatial scales.
- While a successful transition of the Swiss energy system that meets climate and sustainability policy requires a highly networked system with pervasive sector coupling and electrification, concurrent trends towards decentralized, local renewable energy supply options call for new technical solutions to ensure reliable and efficient supply to customers. To harness the full benefits of such a potentially highly resilient, decentralized system of supply and demand calls for a better coordination of investments and actors that shape and participate in such types of value chains on regional scales.
- Switzerland faces a fundamental challenge to increase the share of renewables for heating and cooling particularly in industrial applications and services. While households already show a highly promising trend with the share of renewables growing substantially, further progress is very much dependent on the ability to efficiently transport and distribute renewable heat.
- Any debates on energy systems and pathways to achieving sustainable development goals eventually revolve around the fundamental questions of affordable and just transformation of Switzerland's energy system with opportunities for wealth creation for individuals and society. An integrated assessment of energy systems and transition pathways must strike the right balance between environmental protection and optimized use of resources in order to find appropriate measures that fully exploit the sustainability benefits of a high share of renewable energy in Switzerland's energy system.

[9] See FOEN CO_2 statistics: **https://www.bafu.admin.ch/bafu/en/home/topics/climate/state/data/co2-statistics.html**

4 Objective of SWEET Call 1-2020: Research challenges

There are 4 research challenges defined within Call 1-2020. The overall scope of the call budget is max. CHF 30 Million in subsidiary funding for research and development projects. The maximum funding for individual challenges is CHF 8 Million for challenges 1-3 and CHF 6 Million for challenge 4. One consortium may only address one research challenge. Only one consortium will be funded per research challenge.

Additional funding for pilot and demonstration (P+D) projects is available.

4.1 Research challenge: Improve renewable energy system efficiency through flexibility and sector coupling

Specific Challenge: The research challenge is to incorporate a much higher share of renewables that results in a more efficient Swiss energy system by enabling flexibility across various sectors, along temporal and spatial scales.

Consortia are invited to develop energy technologies, methods, scenarios and business models as well as regulatory frameworks within the context of liberalised energy markets to optimally enable the flexibility potential of the Swiss energy system when integrating and balancing a large share of intermittent as well as non-intermittent renewables. When considering flexibility options infrastructures play an important role. Sector coupling via infrastructure coupling is an essential enabler to gain flexibility from synergistic use of gas, heat and electricity networks.

Investigations need to concentrate on **flexibility options that enable a high share of renewables in all energy carriers (gas, heat, fuels and electricity),** while paying due attention to, for example, energy storage beyond electricity, demand side management, sector coupling, grid reinforcement, renewables curtailment and linkage to EU markets.

Scope: The scope of the research challenge covers all aspects of flexibility regarding the renewable energy supply, distribution and demand required to increase the efficiency and resilience of the Swiss energy system (e.g. but not limited to storage, demand side management, sector coupling, grid reinforcement, renewable curtailment and position vis-à-vis EU markets and regulations). The adaptation of an appropriate energy infrastructure to accommodate a high share of renewables is within this scope, as are considerations that investigate the consequences of disruptive events, and technical, economical, commercial and socio-political uncertainty on a flexible energy system with high shares of renewables.

Technological readiness, cost reduction potential, business models, financing structures and consumer acceptance need to be considered for different flexibility options over time and space by including various sectors (electricity, heating/cooling and transport) and scales.

Consortia are expected to develop methodologies on how to plan and operate spatial and temporal multi-layer networks that have the capacity to carry a significant share of renewable products (electricity, heat/cold, chemical feedstocks, transport and heating fuels derived from renewable sources) between suppliers and consumers whilst providing import and export capacities.

Consortia need to address appropriate policies and regulatory frameworks that enable an efficient development of flexibility options, as well as sector and infrastructure coupling. The development of

appropriate business models and commercial value propositions that include novel infrastructure concepts and assign value to the multiple purposes of infrastructures (transport and distribution of energy carriers, system services, storage services, environmental services and so on) is also within the scope of this challenge. Consortia have to address the participation and impact on citizens and their organisations. Of importance is an understanding how narratives and discourse strategies around energy infrastructures are developed and shaped.

Consortia are expected to consider the impact of digital transformation for managing grids, energy production and energy consumption with automation (technical questions and consumer acceptance).

Expected impact: The consortium's output are solutions that suggest or demonstrate pathways for a high renewables share in a flexible, cost-competitive, sustainable and resilient Swiss energy system, in particular by:

- Identifying optimal and innovative technology choices required for flexibility (generation, transport and infrastructure services, carbon management, accommodation of seasonality, efficient end uses of energy and materials etc.), as well as enabling policies, regulations and business opportunities for Swiss companies.
- Providing flexibility solutions that enable a measurable improvement of the resilience of the Swiss energy system, and a measurable enhancement of system efficiency. The proposed solutions have to span the innovation cycle from application-oriented basic research to preparations for deployment, and both develop innovative new flexibility options for the long-term as well as demonstrate the application of medium-term options.
- Demonstrating planning tools and methods that deploy innovative technologies to manage the flexibility and sector coupling that underpins the integration of higher shares of renewables.
- Providing solutions that account for seasonality of energy supply and demand.
- Integrating network operators who pave the road for optimal developmental pathways that lead to a high renewables share in a flexible, multi-layer network.

Impact will be measured in terms of provision of evidence-based results that advance technology innovation and feed into the development of legislative and regulatory frameworks.

Primary targets for impact are the following stakeholders: policy makers and the administration; industry, distribution and transmission system operators, communities and households.

4.2 Research challenge: Integration of decentralized supply of renewable energy into the Swiss energy system

Specific Challenge: A successful transition of the Swiss energy system that meets climate policy goals is likely to go hand in hand with sector coupling and electrification in many sectors and the deployment of multi-layer networks operating at a wide range of spatial and temporal scales.

However, there are concurrent and strong trends towards decentralized, increasingly locally sourced renewable energy supply options, and local energy distribution systems that serve local, regional or cantonal customers. The decentralized, often small-scale nature of renewable energy supply options and the potential role of locally driven and accommodated demand for flexibility and storage, calls for

markets, policies and regulations that efficiently coordinate investments and the behaviour of diverse actors.

Identifying how the underlying decisions are shaped and can be steered – via technology, price and market incentives – is key to achieving a resilient renewable energy system at the national level. The objective of this challenge is to show how to best integrate decentralized renewable energy supply options in the Swiss energy system and how to organize and coordinate energy markets.

Scope: The pathway to a more decentralized, resilient and sustainable renewable energy system, requires strong emphasis on adaptable technology solutions and the coordination of actors, investments and policies to ensure an efficient transition across regions, time and sectors (mobility, heat, electricity).

Consortia must develop models that capture salient features of decentralized energy systems with high shares of locally sourced renewable energy supply. Such local energy system models need to be set in an overall national and where appropriate international context. In particular, such models need to identify key drivers and their system responses. Consortia have to digest model results to yield useful information, outline solutions for the coordination within decentralized energy systems with high shares of renewables, and support the efficient integration of such decentralized energy systems at national and (where appropriate) international levels.

Considering the fragmented landscape of Switzerland (agglomerations, the midlands and mountainous regions), the diversity of regions in terms of resources and framework conditions and the impact on entire value chains, regionalized analysis and transition pathways for the energy system need to be developed for Switzerland. This includes markets and technological solutions to coordinate demand, generation, distribution and transport infrastructure. Further, the usage of big data, artificial intelligence and automatic control as a complement to traditional tools and approaches are to be investigated.

Consortia have to develop and demonstrate methods to optimize appropriate renewable energy generation technologies at local and regional levels to achieve an efficient and resilient decentralized energy system. The impact of decentralized renewable energy supply options on energy distribution merits special attention as do the opportunities and threats in connection with fast or gradual expansion of networks.

An important research field is the design of decentralized markets and their integration at the national and European level to set appropriate and efficient incentives for a high share of renewables. Consortia have to propose market rules, incentives and policies that coordinate the multitude of actors and parameters from different sectors, regions and technologies. Specifically, designs for markets that coordinate actors and provide incentives for efficient investments in renewable energy generation technologies should be investigated, as well as the need for support policies. Designs have to address the management and minimization of potential adverse distributional effects.

The promotion of flexibility and sector coupling are part of the previous challenge and outside the scope of this research challenge.

Expected impact: The future energy system has to coordinate diverse actors and establish energy markets on regional and temporal scales. This challenge will have impact by:

- Novel scenarios of future development of decentralized energy systems with high shares of renewables at regional scales.
- Improvements in the cost efficiency, environmental impact reduction and reliability of innovative renewable generation technologies, as well as technical concepts for the use and integration of high shares of decentralized renewable supply at a system level.
- Provision of evidence-based recommendations for policies (support, energy, and climate), market regulation and market design for the efficient coordination of various actors, with a particular focus on minimizing conflicts among actors, sectors and policy domains.
- Development of novel cooperation and business models spanning a range of value chains.
- Analysis of the distributional impact of decentralization, and proposing measures to mitigate unwanted effects.
- Testing novel technological and commercial approaches in the field to validate initial assessments of their feasibility, economic merit and environmental footprint at different scales.

Primary targets for impact are the following stakeholder: actors in energy value chains, administration (federal, cantonal and communal), policymakers, communities and households.

4.3 Research challenge: Enabling renewables for heating and cooling

Specific challenge: The Swiss electricity is nearly GHG emission free but other parts of the energy system still release large quantities of GHG mainly due to the prevalence of fossil fuels. Integrating renewables for heating and cooling into the energy system will be key to de-fossilization, to deliver at least zero GHG emissions while preparing the ground to generate much needed negative emissions for Switzerland.

Cost-effective and environment-friendly solutions for providing and implementing renewable based heating and cooling for industry, services, households in cities and districts/regions are sorely needed. Innovative key solutions have to be developed for renewable heat for industry, but also for developing supply options and distribution systems to meet demand of households and services in cities and agglomerations. This challenge seeks optimal pathways to supply more, and ultimately achieve full renewable heat generation by 2050 with possibilities to unlock the potential of negative CO_2 emissions to reach a net-zero Switzerland.

Scope: Consortia need to provide technically, environmentally and economically sustainable solutions to increase the share of renewables in the heating and cooling sector. Innovative and ultimately commercially viable technological solutions, as well as regulations and policies need to be developed to enable an efficient integration of renewables. Various regional scales, degrees of urbanisation (district heating) and economic sectors have to be taken into account to avoid peaks in electricity demand and transmission challenges during winter.

Consortia are expected to analyse different energy supply profiles, the suitability of various renewable energy supply options for heating and cooling and the enabling role of thermal grids and thermal storage, and zero-carbon energy vectors. Based on solutions developed, the consortia are expected to address and quantify the economic value and environmental impact of renewables in the heating and cooling sector. The consortia should suggest optimal integration pathways with due identification of barriers and

enablers. Pathways need to capture their costs and benefits, and provide evidence-based and policy relevant results that shape laws and regulations.

Consortia have to focus on the heating and cooling sector. Sector coupling and energy system integration are part of the challenge “Improve Energy System Efficiency through Renewable Energy enabled Flexibility and Sector Coupling” and therefore outside the scope of this challenge.

Expected impact: Implementing economically viable and environmentally friendly solutions for renewable heating and cooling is essential for the energy sector to contribute to Switzerland’s goal of net-zero GHG emissions by 2050, in particular through:

- Development, piloting and demonstration of commercially viable technologies that drive down the cost of renewable energy supply for heating and cooling needs in the industry sector as well as in the services and households sector.
- Development of scenarios that integrate supply, distribution and demand of renewable heat into the energy system.
- Quantifying the value of renewable heat and negative CO_2-emissions to the energy system.
- Providing evidence based and policy relevant analysis suitable for the development of policies and regulations that enable efficient and sustainable integration of renewable while preserving the competitiveness of Swiss industry and a social license-to-operate.

Primary targets for impact are the following stakeholders: Cities, communities, DSOs, industries, households, the administration and policy makers.

4.4 Research challenge: Sustainability at the heart of a resilient Swiss energy system

Specific challenge: Growing the share of renewables in the Swiss energy system provides unique opportunities not only to move towards an energy supply with net-zero or even net-negative GHG emissions, but also to accelerate progress towards achieving the country’s broader sustainable development goals. This challenge invites researchers to develop, evaluate and demonstrate transitions pathways to an energy system that reliably provides everyone with affordable energy, reduces the burden on the environment and improves the wellbeing of the Swiss society at large.

In the energy system, economic, social and environmental processes are interlinked. Public and private agents alike must not act one-dimensionally and in isolation. Instead, their decisions must always take into account the three dimensions of sustainability: environment, economy and society. Researchers are called to provide scientifically sound analyses and evidence-based recommendations that facilitate such a holistic approach at all levels of decision making in the energy system, addressing consumers and businesses as well as authorities.

Scope: Consortia are asked to engage with diverse stakeholders and evaluate a wide base of sustainability and resilience criteria in order to identify appropriate indicators for the assessment of potential benefits and drawbacks associated with a high share of renewables in a future Swiss energy system. “Big data” approaches may be warranted to compile and analyse the data sets required for indicator calibration. Novel tools are needed to translate these assessments into various decision making contexts, from the level of products and technologies over sectors all the way up to the overall system,

covering energy generation, distribution, storage and consumption. Case studies can demonstrate the applicability of the new methods in real life situations.

Combining scenario-based modelling with holistic assessments of the energy system's resilience and sustainability opens the doors to design and evaluate alternative transition pathways for the increased use of renewable energy sources in the near future (until 2035) as well as for the long-term (until 2050). Ideally, scenarios can be expanded to include options for a circular economy with closed nutrient and material cycles driven by renewable energy. Models have to be adaptable to assess technology and policy options across different scales, sectors, societal and geographic contexts. Of particular interest is the quantification of uncertainty, especially in the energy system's response to changes and disruptions in the natural, political or economic environment.

To the extent possible, models and assessments are to be validated in pilot and field tests. Based on their experiences in different application contexts, consortia are encouraged to outline how their novel methods and tools could guide and accelerate a transformation of the Swiss energy system that is of optimal value to Switzerland's economy and society.

Expected impact: In order to achieve a resilient and sustainable energy system with a high share of renewables the consortia must provide evidence or demonstrate:

- Holistic assessment tools addressing cost, benefits and uncertainty in the economic, social or environmental dimension to support decision making at all levels of the energy system.
- Guidelines that integrate sustainability into technology development.
- Identification of transition pathways that are technically feasible, economically attractive, put a low burden on the environment and are acceptable to relevant stakeholders.
- Analysis of value drivers and financial models, economic metrics for sustainable finance and investment.
- Recommendations for policy measures and regulations, addressing shortcomings of available instruments and proposing novel approaches.
- First validation of models and assessments in field tests.

Primary target for impact are the following stakeholders: policy makers, technology developers, businesses, investors, planners, consumers.

5 Rules for participation

5.1 Need for consortia

Research challenges are to be addressed and answered in a trans- and interdisciplinary manner set in the context of a specific innovation system chosen and described by the consortium (Figure 2-1). To this end, the research and innovation community has to organize consortia that establish portfolios of interrelated projects with the purpose of addressing and answering one of the research challenges described in this call text. The term of a consortium is between 6 and 8 years.

A consortium is a network of several members who adhere to the rights and obligations set forth in their compulsory consortium agreement. The head of the consortium, the host institution, signs a subsidy contract with the SFOE, which ensures, among other things, the flow of funds that support the work programme of the consortium. The subsidy contract also contains a list of beneficiaries who ultimately receive SWEET funds via the host institution.

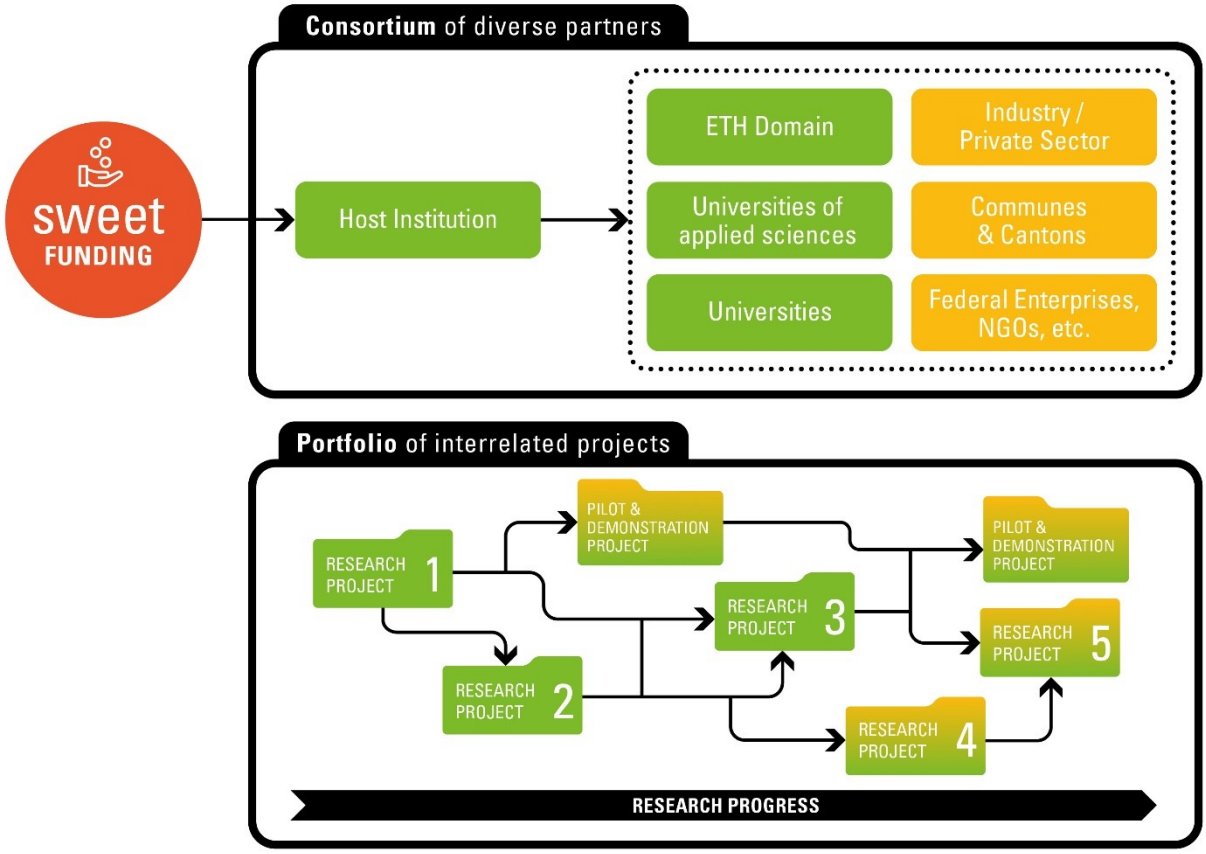

Figure 5-1: Structure of a consortium: The SFOE administers SWEET funding which flows via a host institution to consortium members. In return, the consortium is implementing a portfolio of interrelated projects that address a research challenge. Owing to the long duration of a consortium, its composition and portfolio of interrelated projects may evolve (Chapters 5.3 and 5.4).

5.2 Who can participate and apply?

5.2.1 Coordinator

The coordinator is the person responsible and accountable for the overall coordination and submission of the proposal as well as for the execution and administration of the consortium. The coordinator is a member of staff of the consortium's host institution (Chapter 5.2.2). The coordinator, on behalf of the entire consortium, will be the contact point for the SFOE and will be responsible for the administrative and financial management of the consortium.

5.2.2 Host institution

The host institution is a Swiss institution of higher education and the legal entity applying on behalf of a consortium. The host institution's representative (the coordinator) is responsible for leading the overall consortium. The host institution acts as the negotiation and contractual partner of the SFOE. The host institution must provide a Letter of Commitment to demonstrate its intention to fulfil the obligations associated with its role in the consortium (see Chapter 5.6.2). This letter is due when the proposal is submitted.

Upon request and subsequent SFOE approval, host institutions may change during the application phase and the consortium's execution phase, provided similar commitments are made by the new host institution and contracts are reassigned.

5.2.3 Applicants

Applicants request SWEET funding from the SFOE through the consortium. Each applicant is a legal entity with due representation. Foreign institutions of higher education or public research institutions may apply for SWEET funding, provided their skills and competencies are essential for the implementation of the consortium's objectives and cannot be provided by Swiss institutions. All applicants must provide a Letter of Commitment that is due when the proposal is submitted (see Chapter 5.6.2).

Upon award, all applicants become beneficiaries of the subsidy contract between the SFOE and the host institution. All applicants will establish a consortium agreement and are henceforth referred to as members of the consortium.

Applicants may participate in more than one consortium. In this case, the participant must inform the coordinators of all affected consortia. The same kind of contribution may not be offered to more than one consortium.

Participation in SWEET does not prevent access to other research and innovation programmes of the SFOE.

5.2.4 Cooperation partners

Partners that choose not to apply for funding may be included in a consortium as cooperation partners. Cooperation partners may not receive any of the consortium's SWEET funding from the SFOE.

Cooperation partners may be included in the consortium if all of the following conditions are met: (a) they commit to contributing resources as specified in a Letter of Commitment, (b) they finance their activity

from sources other than SWEET, (c) the consortium in general fulfils the requirements set out in this guideline and (d) the cooperation partner's participation is endorsed by the evaluation panel (Chapter 6) and (e) is approved by the SFOE.

Cooperation partners may join more than one consortium.

5.2.5 New members or new cooperation partners of a consortium

The consortium may change its composition during its term due to the addition or departure of members and cooperation partners. New cooperation partners must fulfil all previously mentioned (Chapter 5.2.4) requirements; similar rules apply to new members. Any such changes are subject to approval by the review panel and the SFOE. The addition of new members will not change SWEET funding levels (see Chapter 5.5). However, funds can be internally reallocated to new members.

5.2.6 Eligibility requirements for applicants and cooperation partners

All applicants and cooperation partners must confirm financing of activities that are not covered by SWEET funding and must submit a Letter of Commitment (see Chapter 5.6.2) by the deadline for submitting the proposal. In case of failure to do so, the applicant or cooperation partner will be considered ineligible and their contribution will be disregarded in the proposal evaluation process.

5.3 Guidelines for consortia

The proposal must demonstrate the added value resulting from trans- and interdisciplinary cooperation. Consortia must be balanced: all applicants need to make significant contributions to the consortium's work programmes, activity and outputs.

- A consortium must respond to one specific research challenge.
- A consortium is led by a host institution, which is a Swiss institute of higher education entitled to receive SFOE funding.
- A consortium comprises at least 5 applicants from different legal entities.
- Consortia may consist of applicants across several roles and disciplines within the innovation system (i.e. application-oriented basic research, applied research, innovation, business etc.).
- Consortia should be gender-balanced and reflect Switzerland's diversity in terms of language and regions.
- All applicants and cooperation partners must meet the SFOE's admissibility and eligibility criteria (Chapter 6.3).
- The composition of a consortium may evolve during its term. The consortium has the right to reallocate SWEET funds to its members provided the funding rules (Chapters 5.5 and 5.5) are adhered to and a transparent and traceable process is in place.
- Members of consortia may abstain from receiving SWEET funding.

5.4 Consortia timing and duration

Consortia will be funded for a period of 6 to 8 years. A subsidy contract will be negotiated and signed between the SFOE and the consortium.

All consortium members must enter into a consortium agreement no later than 4 months after the funding decision has been announced by the SFOE. The consortium agreement must be signed and received by the SFOE prior to the day the subsidy contract between the SFOE and the consortium is signed.

A consortium may vary its composition during its term depending on its objectives and the implementation of the overall work plan. Changes in membership will be recorded in the list of beneficiaries of the subsidy contract and will lead to changes in the subsidy contract and the consortium agreement. However, the initial core budget cannot be increased at a later stage (see Chapter 5.5.1).

5.5 Funding rules

The SFOE funds in accordance with the principle of subsidiarity: members and cooperation partners of a consortium contribute financially according to their abilities. SWEET and other funding sources supplement the overall financial resources needed to carry out the work programme of the consortium. Hence, the amount of own funds and third-party funds that go beyond the funding requested in the SWEET proposal enter its evaluation. An important indicator is the commitment of resources (financial and/or in kind) declared in Letters of Commitment from the members of a consortium and its cooperation partners.

5.5.1 Core Budget

The potential financial award as specified in the subsidy contract is referred to as the “core budget”. The awarded core budget will be allocated to each winning consortium, subject to annual parliamentary appropriations and the schedule of payments agreed to in the subsidy contract. The core budget cannot be revised to higher amounts. The core budget is earmarked for subsidiary funding of the work programme as agreed upon in the subsidy contract, subject to changes during the term of the consortium.

5.5.2 Supplementary budget

Upon request of a consortium and subject to the availability of additional funds, the SFOE may grant a “supplementary budget”. The supplementary budget may not exceed 10% of the “core budget” granted over the term of a consortium. An application for a supplementary budget may be submitted once the results of the consortium’s ongoing project portfolio lead to new questions that can be best addressed by launching a follow-up activity. A consortium may receive a supplementary budget no earlier than 3 years after the launch of the consortium.

The application process for a supplementary budget will be described in the “Monitoring and Review Guidelines” to be published in early 2021.

5.5.3 Funding for pilot and demonstration projects (P+D)

The SFOE expects consortia to describe the relevance and expected impact of all projects in their portfolio of interrelated projects. In light of the specific requirements of the SFOE’s pilot and demonstrations (P+D) programme, the following additional rules apply for applications for P+D projects within the portfolio of a SWEET consortium.

Because the SFOE does not expect consortia to propose P+D projects sufficiently matured (ready to go) by this call’s submission date, the proposal’s specific information on the potential P+D project will be mostly informative, akin to a P+D project note. In order to advise the SWEET Secretariat of the fact that

the consortium wishes to eventually undertake a P+D project, proposers have to complete the "template for a work package for a pilot and demonstration project note". The SFOE will check whether such notes contain sufficient information to inform the evaluation panel about likely compliance with formal and content criteria as specified on page 23 of the "Directive on the submission and evaluation of applications for financial support of energy research, pilot and demonstration projects"[10].

The information will serve the expert evaluation panel to assess the P+D project as a conceptual (yet-to-be-funded) element of the work plan based on the criteria addressed in Chapters 1 (Excellence) and 2 (Impact) of the proposal template. A positive view on such P+D project notes will be beneficial for the proposal's overall assessment, but does not guarantee funding by the P+D programme.

Once activities of the consortium are under way and the envisioned P+D project has matured sufficiently, a formal application must be submitted to the **SFOE's P+D programme** for legal and budgetary reasons. Any decisions by the SFOE on P+D projects are subject to legal hearings and formal objections.

Should a SWEET proposal feature a ready-to-go P+D project, the funding decision for this P+D project is unlikely to be synchronized with the decision on funding SWEET consortia. The SFOE will, however, undertake best efforts to decide on funding for ready-to-go P+D projects by the time funding decisions for SWEET consortia are announced. Nonetheless, the evaluators of the SWEET proposal will be instructed to treat a ready-to-go P+D project as a conceptual element of the work plan.

Of course, applicants may propose more than one P+D project, in which case they have to fill out one "template for a work package for a pilot and demonstration project note" for each P+D project.

The SFOE, through its P+D programme, will make additional funds available to support P+D projects that go beyond the consortium's core budget.

5.5.4 Further particulars on funding

SWEET funding is dedicated to research and innovation activities that are undertaken by Swiss institutions of higher education and non-commercial research organisations. SWEET funds may be allocated to Swiss private for-profit entities engaged in pre-competitive research projects if their skills and competencies are necessary for the success of such projects, including P+D projects. Similarly, SWEET funding may be allocated to Swiss communes, districts/regions and cantons, and enterprises affiliated with the Swiss Confederation; this will be evaluated on a case-by-case basis. Federal departments and their administrative units are prohibited from receiving SWEET funding, but may participate as cooperation partners.

Research and development activities at low technology readiness levels[11] (4 and below) and in the domains of social sciences and humanities may be fully funded by SWEET. Still, consortia are encouraged to make reasonable efforts to secure own or other third party funding. P+D projects will be financed at the agreed level, but in no case at more than 40% of the non-amortizable additional costs.

[10] **Directive on the submission and evaluation of applications for financial support of energy research, pilot and demonstration projects**

[11] For a description of technology readiness levels (TRLs), see Appendix 1 of **Directive on the submission and evaluation of applications for financial support of energy research, pilot and demonstration projects**

SWEET funding also covers costs in connection with coordination, management and monitoring of the consortium and its project portfolio, necessary for the consortium to efficiently meet its contractual obligations with the appropriate quality. Management and coordination support also addresses the consortium's data management plan and implementation.

Activities on communication, dissemination and exploitation of results (knowledge and technology transfer, KTT) require an appropriate allocation of resources. Such activities are likely to be project-, portfolio- and consortium-specific. Expenses associated with such activities depend on where the focus of the consortium lies in the innovation system (Figure 2-2). Unless covered elsewhere, costs to implement measures to provide open access to peer-reviewed scientific publications need to be planned for.

Both coordination and KTT activities must be described in two separate work packages. The SFOE expects and allocation of 5-10% of the core budget for each of these two activities.

5.6 Instructions regarding the form and structure of the proposal

5.6.1 General

SWEET proposals must be prepared in English. Proposals written in other languages will not be accepted. Consortium proposals have to be submitted using the official templates provided on the SWEET website and have to be fully completed and submitted in due time to be eligible for consideration. No proposal will be accepted if it is submitted in another format or if it is incomplete. The SFOE will confirm receipt and process all consortium proposals under appropriate conditions of confidentiality.

5.6.2 Forms and structure of the proposal

The proposal must contain the following completed forms. The forms are provided as templates on the **SWEET website**:

- Administrative form (Template)
- Proposal (Template)

  The proposal template form is organized in three main chapters: 1) excellence, 2) impact, and 3) implementation and a fourth chapter for the list of references quoted in the preceding chapters.

  In chapter 3 (implementation), each research and development project, and each intended P+D project needs to be described in a separate work package.

  The completed application form has to be signed by all applicants and cooperation partners.

- Letter of Commitment of the Host Institution

  There is no template for the letter of commitment of the host institution.

The letter to be included in the proposal has to be printed on the institution's official stationary and signed by authorized representatives of the host institution to demonstrate the credibility of the host institution's commitment to the consortium.

The letter of institutional commitment to act as the consortium's host institution must demonstrate the host institution's real and active participation in the proposed consortium by the provision of human and financial resources and in-kind contributions to the benefit of the consortium.

The letter must contain the full name and address of the person who is authorized to act as the coordinator and, in case of award and successful completion of the contract negotiation phase, to represent the consortium on behalf of the consortium and on behalf of the host institution.

- Letters of Commitment of Applicants or Cooperation Partners

There is no template for the letter of commitment of applicants or cooperation partners.

The letter to be included in the proposal has to be printed on the institution's official stationary and signed by authorized representatives of the institution in order to demonstrate the credibility of the institution's commitment to the consortium. By signing and submitting a Letter of Commitment, applicants confirm that they will become members of the consortium in case of award. Similarly, by signing and submitting a Letter of Commitment, cooperation partners confirm their partnership in the consortium, should it be established.

The letter of institutional commitment to be an applicant or cooperation partner must demonstrate the institution's real and active participation in the proposed consortium by the provision of human and/or financial resources and in-kind contributions to the benefit of the consortium. The letter of commitment must also confirm the availability of financial resources for those activities that are not covered by SWEET funding.

The letter must include a list of the work packages that the applicant or cooperation partner will participate in. The letter must mention explicitly whether the applicant or cooperation partner intends to participate in a work package that features an intended P+D project.

The letter must contain the full name and address of the person who is authorized to act as the applicant or cooperation partner and, in case of award and successful completion of the contract negotiation phase, to represent the institution on its behalf in the consortium.

- Budget workbooks (Template)

For each work package, the applicants and cooperation partners have to prepare an Excel workbook detailing the resources required to undertake the work programme and the way the work package is financed.

It is the coordinator's duty to compile summary information from these workbooks into the consortium budget workbook.

- Open access and data management plan (Template)

  The SFOE subscribes to the notion of Open Science and expects that results and data generated by funded consortia are free and publicly accessible. This means for SWEET consortia to include measures to provide open access[12] (free on-line access, such as the 'gold' model) to peer-reviewed scientific publications which result from the consortium's work programme. Work package deliverables related to open access peer-reviewed publications are expected to indicate the target number of open access papers the consortium will produce and the number of these that will be collaborative publications.

  Similarly, the data generated by the consortium have to be publicly accessible in digital databases provided there are no legal, ethical, copyright or other issues, such as trade and manufacturing secrets being jeopardized. In this respect, the consortium has to deliver a data management plan, by following the structure of the Swiss National Science Foundation's data management plan (DMP)[13]. Once a consortium has started its funded activities (not at application stage) there will be a need to create a more detailed Data Management Plan for making their data findable, accessible, interoperable and reusable (FAIR)[14].

5.6.3 ARAMIS Publication

By signing the application form the applicants declare that they agree to the publication and distribution of the consortium's results. Specifically, final reports of individual R&D and P+D projects as well as annual consortium reports and information will be published on the ARAMIS information platform (**www.aramis.admin.ch**) and, if applicable, on the geoportal of the Confederation (**http://map.geo.admin.ch**).

Abstracts of the consortium and abstracts of projects that consortia undertake have to be submitted in English, German, French and Italian. Final reports have to contain summaries in English, German, French and Italian.

[12] **Open access to publications**

[13] **SNF Data management plan**

[14] **FAIR Principles**

6 Submission and Evaluation

6.1 Submission

All proposals in response to SWEET Call 1-2020 must be submitted electronically to the SWEET Secretariat at the following address: **sweet@bfe.admin.ch**.

Proposals must be submitted prior to the close of SWEET Call1-2020 on Monday 12 October 2020 (12 noon Central European Summer Time / CEST).

However, the administrative form duly signed by the Coordinator must be sent via postal mail and postmarked no later than 12 October 2020 to the SFOE's SWEET Secretariat:

Swiss Federal Office of Energy
SWEET Secretariat
Section Energy Research and Cleantech
P.O. Box
CH-3003 Bern / Switzerland
sweet@bfe.admin.ch

All documents must be compiled into one single PDF file, including a copy of the duly signed administrative form. In addition, the original MS Word and Excel files based on the official templates must be submitted and labelled in the following manner:

ACRONYM stands for chosen acronym of the consortium. Replace only the letters in italics.

- Part 1 (all pdf): *ACRONYM*_All
- Part 2 (Word MS Office): *ACRONYM*_Admin.Form_and_Table.Applicants
- Part 3 (Word MS Office): *ACRONYM*_Proposal
- Part 4 (pdf): *ACRONYM*_Letters-of-Commitment
- Part 5 (Word MS Office): *ACRONYM*_Open-access-and-data-management plan
- Part 6 (Excel MS Office):
    - *ACRONYM*_Budget_Consortium_Coordinator
    - *ACRONYM*_Budget_Work_Package_No.X_Leader

The proposal will only be eligible if signed Letters of Commitment from all applicants, cooperation partners and the host institution have been included in one appendix (PDF) to the proposal. It is the coordinator's duty to ensure that all letters of applicants and cooperation partners are duly signed by the respective legal representatives and delivered prior to the close of SWEET Call 1-2020.

If the proposal size exceeds 20 MB, files must be submitted via the file transfer system of the Swiss federal administration (**www.filetransfer.admin.ch**). A copy of the duly signed administrative form must still be sent electronically to the SWEET Secretariat at **sweet@bfe.admin.ch**. In all cases, all information must be submitted before the deadline, including information on how to open encrypted files and information on how to access the file transfer system.

6.2 Data Protection

The content of proposals submitted to this call will be used by the SFOE and independent evaluators for the purpose of assessing and evaluating proposals, and subsequently by the SFOE and its team of reviewers for monitoring of consortia that have been selected for funding.

The whole content of the proposals received under the call will be treated as confidential, with the exception of the titles and publishable abstracts of consortia and their portfolio of projects selected for funding. Proposals and evaluation reports will be stored on secure SharePoint servers. Independent evaluators will be required to sign declarations concerning confidentiality and conflicts of interest before they are granted permission to access any SWEET proposal.

By submitting the proposal, the consortium agrees that the proposal is forwarded to independent evaluators. Both the SFOE and evaluators are subject to very strict confidentiality rules.

6.3 Admissibility and Eligibility

The SFOE will check all submitted SWEET proposals for admissibility (completeness of a proposal and whether it is properly put together) and eligibility (number of applicants per consortium, etc.) prior to being evaluated by the external expert panel. A proposal is admissible and eligible, if, unless noted with an asterisk, all of the following questions have been answered by “yes”.

If one or more of the criteria for admissibility and eligibility are not fulfilled, the proposal will not be advanced to the evaluation phase and will be rejected instead.

The coordinator of the proposal will be notified in writing, if a proposal does not meet the criteria for admissibility and eligibility, including the reason(s) why and which of the criteria have not been met.

Table 1: The SFOE uses criteria for admissibility (completeness and composition of proposal) and eligibility (scope, consortium composition, and finances) prior to the evaluation by an independent expert panel.

Admissibility		Fulfilled
A1	Has the proposal been received before the deadline given in the call text?	Yes No
A2	Is the required information about the consortium complete (see 5.6.2)?	Yes No
A3	Has the host institution submitted a Letter of Commitment with the minimum content (see 5.6.2)?	Yes No
A4*	Have all applicants and cooperation partners submitted Letters of Commitment with the minimum content (see 5.6.2)?	Yes No*
A5	Are the budget workbooks complete?	Yes No
A6	Has a draft data management plan (DMP) been included in the consortium's proposal?	Yes No
A7	Has a draft plan for the dissemination and exploitation of the consortium's results been included in the consortium's proposal (template for work package communication, dissemination and exploitation of results)?	Yes No
A8	In reference to R&D projects and P+D project notes of the interrelated project portfolio: has each of the projects and project notes been assigned to its own work package?	Yes No
Eligibility		**Fulfilled**
E1	Are one host institution and as a minimum of 4 additional admissible applicants defined in the consortium?	Yes No
E2	Is the host institution a Swiss institute of higher education entitled to receive SFOE funding and has a consortium coordinator been appointed on its behalf?	Yes No
E3	Where applicable: is it likely that R&D and P+D projects will receive all the necessary permits to undertake their activities as planned?	Yes No

**Provided criterion E1 is not violated, if an applicant or cooperation partner is declared inadmissible (A4), the independent expert panel that evaluates the proposal will be instructed to disregard any contribution of this applicant or cooperation partner.*

6.4 Evaluation

6.4.1 Evaluation process

After the successful conclusion of the admissibility and eligibility check, proposals will be evaluated by a panel of independent experts based on the three principal criteria: excellence, impact and implementation. The independent panel will consist of recognized experts in the field of renewable energy, academics as well as practitioners and innovators, who can assess the scientific as well as the innovative and practical aspects of the submitted proposals. The panel will be appointed by the SFOE. Applicants will have no possibility for rebuttal to the panel's evaluation.

Having assessed and scored the proposals, the independent expert panel will then rank proposals according to score, and recommend to the SFOE a list of proposals for a positive or negative funding decision. Only proposals that have reached the minimum thresholds will be ranked.

6.4.2 Evaluation criteria

Proposals will be evaluated according to the following criteria: excellence, impact, and quality and efficiency of the implementation of the consortium activities (Table 2)**Fehler! Verweisquelle konnte nicht gefunden werden.**. Scores will be awarded for each of the three criteria:

Table 2: Evaluation criteria and their characteristic features.

Excellence – Weight 30%	5 points (max)
• In accordance with the objectives of the call text • Clarity and relevance of the consortium's objectives • Credibility of the proposed technology/concept – including trans-disciplinary considerations, where relevant • Credibility of the proposed consortium approach • Ambition and innovation potential - e.g. beyond the current state of the art. • Scientific merit	
Impact (potential impact of the results of the project) – Weight 40%	5 points (max)
• Expected contribution to the integration of renewables in Switzerland's energy system • Socially important impacts, such as consumer behaviour, evidence-based policy relevance and social acceptance. • Industrial relevance and impact on international collaboration • Impact on science and thought leadership of Switzerland • Strength of the proposed exploitation and dissemination plans	
Quality and efficiency of the implementation of the consortium activities – Weight 30%	5 points (max)
• Coherence and expected effectiveness of the consortium plan, including the appropriateness of tasks, use of methods, resource allocation and timing • Maturity and balance (appropriate mix of research and development, and conceptual P+D projects) of the project portfolio, and proportion of SWEET funding to other funding sources. • Utilization of trans- and Interdisciplinary ways of working within the consortium • Strength of management structures and governance procedures, including risk management • Breadth and diversity of consortium members and cooperation partners • Suitability of the implementation to realize the consortium's expected impact including resources mobilized, suitability of expertise, complementarity, and balance of contributions	

6.4.3 Scoring and thresholds

An expert panel will evaluate on the basis of the criteria ‘excellence’, ‘impact’ and ‘quality and efficiency of the implementation’. Evaluation scores will be awarded for each of the three criteria (Table 2). Each criterion will be scored by the expert panel using the following scale: 1 poor, 2 fair, 3 good, 4 very good, 5 excellent. A maximum of 5 points can be achieved for each of the three categories. Half marks will be used.

In case of proposals that receive a positive recommendation for funding, experts have the right to make recommendations to the SFOE to impose special conditions in the subsidy contract that address and resolve shortcomings of the consortium’s proposal.

The threshold for individual criteria is 3. The overall threshold, applying to the sum of the unweighted three individual scores, is 10. Only proposals that meet both, the threshold for individual criteria (each criterion must have a score of at least 3 points) and the summed threshold (10 points) may be considered for a recommendation for funding.

For computation of the ranking, the weighting of the evaluation categories (30% for excellence, 40% for impact and 30% for implementation) will be taken into account.

When scored equally after the evaluation, proposals with the higher impact score will be selected. As a second selection criterion, the SFOE will give preference to consortia with better gender balance at the leadership level (coordinators and work package leaders).

6.4.4 Funding decisions

The SFOE will announce funding decisions and the next steps. Consortia coordinators will be issued with the written funding decision. The coordinator will also be informed about the consortium’s position in the ranking list in an anonymized manner.

In case of a negative funding decision, coordinators can submit a formal objection to the decision within 30 days. After this period, the decision enters into force.

In case of positive funding decisions, the SFOE and the host institution will enter the negotiation phase which will be concluded by signing a subsidy contract. The expert panel may have recommended to impose special conditions in the subsidy contract, which the SFOE may implement during the negotiation phase.

There is no entitlement to funding.

6.4.5 Tentative schedule

- Monday, 12 October 2020 (12 noon Central European Summer Time / CEST) – Call for proposals closes.
- January 2021 – Announcement of funding decisions by the SFOE.
- March 2021 – Subsidy contracts signed.

  No subsidy contract will be concluded until all administrative decisions regarding this call have entered into force.
- April 2021 – Consortia start operations.

6.4.6 Documentation and forms

All documents for public release related to this call are published on the SWEET website: **www.bfe.admin.ch/SWEET**

6.5 Consortium agreement

Each consortium recommended for funding must have a signed consortium agreement between all members prior to the signature of the subsidy contract between the SFOE and the host institution. The consortium agreement will at least address the following topics:

- Internal organization and management of the consortium (including allocation of funds)
- Budgeting and financial flows
- Intellectual property rights and arrangements
- Settlement of internal disputes

7 Consortium monitoring and reporting to the SWEET Secretariat

Beyond standard reporting (final reports on research and development projects as well as P+D projects, both including financial reports), consortia are expected to provide annual reports that summarize progress being made in the agreed upon work programme.

Coordinators of consortia will deliver short basic progress reports to the SWEET Secretariat, on an annual basis, so called traffic light reports on progress in work packages against milestones and deliverables as well as financial aspects (actually spent versus planned expenditures); the reporting template will be provided on the SWEET website.

The SFOE will appoint a consortium-specific monitoring and review panel that will pay consortia a site visit once per year to perform a review.

Consortia will also actively participate in and present their work in annually held, one-day knowledge sharing workshops with all successful consortia awarded in this call. These workshops will be organized by the SFOE.

All consortium members and cooperation partners participating in the funded SWEET projects must ensure that all outcomes (publications, etc.) of funded projects include an appropriate acknowledgement of the SWEET funding programme.

Detailed monitoring and review guidelines including report templates will be published after the publication of the funding decision.

8 Contacts and further Information

If you have questions on the general call process and proposal submission, please contact the **SWEET Secretariat via email or by written letter to sweet@bfe.admin.ch by 15 July 2020:**

Swiss Federal Office of Energy
SWEET Secretariat
Section Energy Research and Cleantech
P.O. Box
CH-3003 Bern / Switzerland
sweet@bfe.admin.ch

Questions and Answers in relation to this call will be published until 31 July 2020 at **www.bfe.admin.ch/sweet**. Please check for updates regularly.