

European Green Deal Call

key opportunities for
geothermal project proposals

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Reghina Dimitrisina
EGEC Policy Officer
r.dimitrisina@egec.org

Agenda

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- Priority areas for geothermal project proposals
- Secondary opportunities for geothermal project proposals
- Application and Evaluation process

EU Green Deal Call



About the call

- The last and biggest call under Horizon 2020 programme
- Tailored for R&I projects that will accelerate Europe's recovery from the coronavirus crisis
- Project proposals should demonstrate **tangible results** in a relatively short time frame

Budget	€1 billion
Deadline for submissions	26 January 2021
Evaluation of project proposals	Q2 2021
Selected projects expected to start	Q4 2021

About the call

- The structure of the Green Deal Call reflects the 8 work streams of the European Green Deal and is complemented by 3 horizontal areas:



Priority areas for geothermal project proposals



Priority areas

Area 1:
Increasing
climate ambition
Cross sectoral
challenges

Proposals expected to trigger societal transformations among key community systems (i.e., health; primary production including agriculture, forestry, fisheries and aquaculture; water; environment, including biodiversity; **and infrastructure including clean energy and transport**) that are central to resilience building and sustainable growth.
Key actions: innovative energy technologies and their contribution to climate resilience

Area 2: Clean,
affordable and
secure energy

Subtopic 1: Innovative land-based and offshore renewable energy technologies and their integration into the energy system
Projects should develop innovative solutions for either district heating and/or cooling systems *or* CHP and **combine at least two or more renewable energy sources and/or two or more renewable energy technologies**. For DHC systems, the integration of sources of otherwise wasted excess heat or cold as well as the interfacing with existing heating or cooling distribution networks can be considered. For CHP solutions, the minimum capacity in terms of power supply should be 2,5 MW and the electrical efficiency is expected to go well beyond the state of the art.
Projects should bring the proposed solutions to TRL 4-5

Priority areas

Area 3: Industry for a clean and circular

Closing the industrial carbon cycle to combat climate change

Special focus on innovative, renewable energy driven, catalytic processes, to produce synthetic fuels and chemicals, at a sufficiently large scale to demonstrate its cost effectiveness, while reducing the use of critical raw materials.

Address financial, regulatory, environmental, as well as public acceptance issues and socio-economic impact related to the proposed technological pathways.

Bring the core technology from TRL 4-5 up to TRL 7 at the end of the project

Area 4: Energy and resource efficient buildings

Proposals are expected to deliver at least two (residential and non-residential, new and/or retrofitted) large-scale, real-life demonstrations of promising technology, process and social innovations, in different regions of Europe. The demonstrations should address the following aspects:

- Scalable design of green, positive energy neighbourhoods well embedded in the spatial, economic, technical, environmental, regulatory and social context of the demonstration sites.
- Sustainable, innovative zero-emission and more cost and energy efficient, renewable energy generation in the buildings combined with urban service facilities (e.g. charging facilities) and heating-ventilation-air conditioning (HVAC) solutions (Renewable power generation and H&C systems)

Proposals are expected to bring the technologies from TRL 5/6 to TRL 7/8 at the end of the project

Secondary areas for geothermal project proposals



Secondary areas

Area 2: Clean, affordable and secure energy

Focus on the potential of innovative sustainable energy solutions for Africa. Solutions should aim to provide sustainable energy access (electricity/cooking) and/or creating improved health, economic wealth and jobs (productive use of energy/energy efficiency).
Key actions: supporting further development of renewables' potential of Africa in clean energy generation and infrastructure

Area 5: Sustainable and smart mobility

Area A: Green airports

Key actions: Proposals should showcase the use of innovative de-icing and anti-icing procedures and infrastructures; improve the energy efficiency of buildings; optimise services such as heating, water/energy usage and efficiency;

Area B: Green Ports

Key actions: renewable electricity; storage and waste heat recovery in ports; demonstrating innovation beyond energy supply and demand at ports, particularly the integration with green and smart logistics and operations at/to/from ports, energy-efficient buildings, and infrastructure activities, effective and green land use

Large-scale, high TRL (6 or above) demonstrations

Secondary areas

Area 6: Farm to Fork

Subtopic B: proposals are expected to reduce energy use and increasing energy efficiency in processing, distribution, conservation and preparation of food.
Key actions: Geothermal heating for greenhouses and food processing

Area 9: Strengthening our knowledge in support of the European Green Deal

As a pilot under Horizon 2020, activities will focus on the provision of R&I for breakthrough research in two priority areas: **energy storage and advanced climate/environment observation and monitoring.**

In the field of energy storage, the aim is to bring together, integrate on European scale, and open up key national and regional research infrastructures to European researchers from both academia and industry, as well as to develop any missing services, which better fit specific needs for research and technological developments.

Subtopic A: Support Europe leadership in clean energy storage technologies

Example of opportunities for geothermal lithium

- **LC-BAT-15-2020: Coordinate and support the large-scale research initiative on Future Battery Technologies**

- Proposals are expected to coordinate research activities and the stakeholders participating in the initiative; to facilitate communication, dialogue and cooperation on cross-cutting topics; to monitor the initiative's progress and maintain its roadmap; to promote and communicate the objectives of the initiative and its achievements, including by ensuring media presence and public visibility, by engaging with industry and society and by participating or organising outreach events; to identify training and education needs and promote European curricula in future battery technologies.
- In particular, proposals should identify and coordinate relevant efforts for modelling and data sharing, cooperation with other relevant initiatives at European level. They should cooperate with the ETIP on battery announced in the EU Strategic Action Plan on Batteries
- It is expected that such an activity is driven by representatives of the relevant actors of the field (e.g., from academia, industry etc).

- **CE-SPIRE-09-2020: Alternative mineral resources for high volume production (IA)**

- Energy intensive industries in Europe depend on the one hand on very large volumes of minerals and other raw materials (e.g. 70% of process manufacturing depends on minerals and metals). On the other hand, they heavily rely on imports from third countries (extraction in Europe covers only 29% of the demand).
- The challenge is to develop technologies for the uptake of secondary raw materials based on industrial symbiosis, waste collection, or water treatment systems, and leading to new value chains or even value loops (i.e. reusing waste, by-products and recycled materials repeatedly) instead of just further optimising existing processes. Such new technologies should enable overcoming barriers such as low costs of primary raw materials or differences in taxes across countries and regions (e.g. landfilling taxes for primary and secondary raw materials).
- Activities should start at TRL 5 and achieve TRL 7 at the end of the project

Application and Evaluation

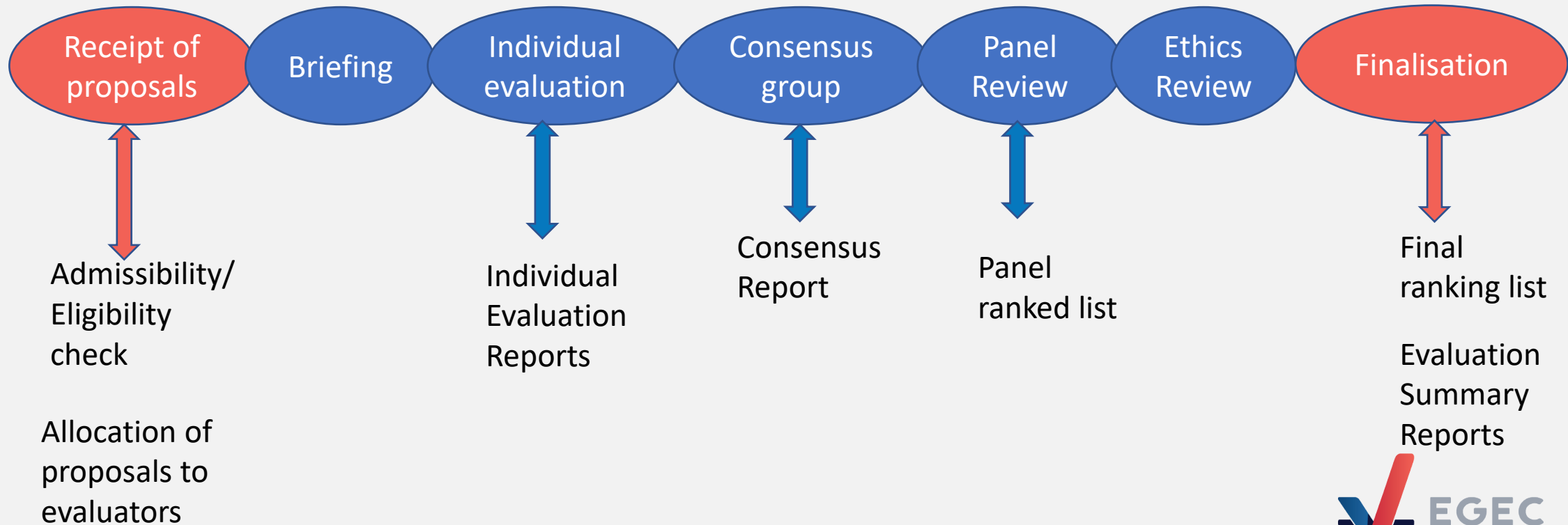


Evaluation timeline 2021



Evaluation process

Evaluators' work in these 5 months



Scoring scale

5	Excellent. The proposal successfully addresses all relevant aspects of the criterion. Any shortcomings are minor.
4	Very Good. The proposal addresses the criterion very well, but a small number of shortcomings are present.
3	Good. The proposal addresses the criterion well, but a number of shortcomings are present.
2	Fair. The proposal broadly addresses the criterion, but there are significant weaknesses.
1	Poor. The criterion is inadequately addressed, or there are serious inherent weaknesses.
0	The proposal fails to address the criterion or cannot be assessed due to missing or incomplete information.

Tips

1. Understand call conditions and text
2. Leave no doubt on TRLs or State of the Art:
Start – situation now; End – results by the end of project
3. Impact is essential: substantiate the impacts – credibility is key
4. Use graphics – make it ease to follow
5. Respect the page limits
6. No tiny fonts or tight line spacing

Further information

1. [Funding & tender opportunities portal](#)
2. [H2020 Work Programme](#)
3. EGEC Factsheet on the EU Green Deal Call (Members Area)