THE EU FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

HORIZON 2020

Low-Carbon Energy (LCE) Calls in the 2017 WP

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Strategy for research actions - SHC

- The cost competitiveness and acceptability of solar heating systems need to be improved;
- Significant impact is expected in terms of increasing the reliability while decreasing operation and maintenance costs.
- **LCE07 in 2017:** Development of components for residential single-family solar-active houses (solar heat share > 60%).
- Expected EU contribution: EUR 2 to 5 million

Strategy for innovation actions – SHC

- The contribution of SHC in the industrial sector is still marginal despite the clear potential for the application of this technology;
- Solutions that achieve TRL 7 will stimulate the attractiveness of SHC and therefore the market uptake of this technology.
- **LCE12 in 2017:** Near-to-market solutions for the use of solar heat in industrial processes.
- Expected EU contribution: EUR 5 to 8 million

Strategy for research actions - CHP/bioenergy

- To increase the technology performance, feedstock basis and resource efficiency with the aim to improve cost effectiveness and reduce emissions;
- To develop energy intermediates as storable renewable energy source in integrated systems.
- **LCE07 in 2017:** Transforming renewable energy into intermediates from biomass and other renewable and waste carbon sources
- Expected EU contribution: EUR 2 to 5 million

Strategy for research actions – deep geothermal energy

- To increase cost-competitiveness by reducing the replacement frequency of components;
- To develop new materials and systems reduce well losses and to increase efficiency and longevity of the installations, by securing the integrity of the well and of the equipment, with particular reference to the pumps.
- **LCE07 in 2017:** Deep Geothermal (medium-high temperature): Materials for geothermal installations:
- Expected EU contribution: EUR 2 to 5 million

Strategy for innovation actions – deep geothermal energy

- To demonstrate the cost-effectiveness, the viability and the efficiency of geothermal energy sources to produce electricity, heat or a combination of both in different geologic systems.
- **LCE-18-2017** EGS in different geological conditions
- Expected EU contribution: EUR 6 to 10 million

LCE topics on RES - 6

- Total LCE budget : about EUR 422.89 million
- Two-stage evaluation re-introduced for RIAs

Topic	Opening	Deadline 1st stage	Deadline 2nd stage
LCE07	29 July 2016	29 November 2016	22 August 2017
LCE12 LCE18	11 May 2017	7 September 2017	-

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Further opportunities for H&C

- Market uptake of renewable energy technologies: LCE-21-2017 (Accelerate the penetration of heat pumps for heating and cooling purposes; tackling the bottlenecks of high penetration levels for geothermal energy systems) – deadline 05/01/2017;

- Tools and technologies for coordination and integration of the European energy system: **LCE-05-2017** Development of technologies, tools and systems to support synergies between electricity, gas and heat networks – deadline 14/02/2017;

- **Horizon prize** (€ 1 million) for a Combined Heat and Power (CHP) installation in a hospital using 100% Renewable Energy Sources – deadline 03/04/2019;

- Under other challenges, e.g. **EEB-06** (Highly efficient hybrid storage solutions for power and heat in residential buildings and district areas, balancing the supply and demand conditions) and **EEB-07** (Integration of energy harvesting at building and district level) deadline 19/01/2017.

Thank you for your attention

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