Low-Carbon Energy (LCE) Calls WP 2016-2017

Piero De Bonis

Directorate-General for Research & Innovation, New and Renewable Energy Sources

Piero.de-Bonis@ec.europa.eu

DHC+ Brokerage Event

Brussels, 7 October 2015
Strategy for research in the area of 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 2016**: Innovative components for solar compact hybrid systems (systems combining a solar system and a backup-heater):
- **LCE07 in 2017**: Development of components for residential single-family solar-active houses (solar heat share > 60%)
Strategy for innovation actions in the area of 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 in the area of 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 2016: Development of medium- and large-scale biomass-based CHP systems with high thermal and electrical efficiency and increased high-temperature heat potential

• LCE07 in 2017: Transforming renewable energy into intermediates from biomass and other renewable and waste carbon sources
Strategy in the area of geothermal energy (deep geothermal)

- To improve materials to increase the longevity and efficiency of deep geothermal systems therefore making them more reliable and cost-competitive: **LCE-07-2017** Materials for geothermal installations.

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

- International cooperation with Mexico. To apply and further develop methodologies and technologies in the field of EGS and of superhot systems to reduce technological, environmental and social risks: **LCE-23-2016**.
<table>
<thead>
<tr>
<th>Topic</th>
<th>Opening</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCE07</td>
<td>27 October 2015</td>
<td>16 February 2016</td>
</tr>
<tr>
<td></td>
<td>20 September 2016</td>
<td>5 January 2017</td>
</tr>
<tr>
<td>LCE23</td>
<td>27 October 2015</td>
<td>16 February 2016</td>
</tr>
<tr>
<td>LCE12, LCE18</td>
<td>9 May 2017</td>
<td>7 September 2017</td>
</tr>
</tbody>
</table>

**Overall RES:**
- Budget: 258,1M€ in 2016 and 256,5M€ in 2017
- Single stage evaluation
Further opportunities with regard to H&C:

- 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

- Horizon prize for a Combined Heat and Power (CHP) Installation in a hospital using 100% Renewable Energy Sources: **Other actions**

- InnovFin Energy Demonstration Projects (EDP): **Other actions**
Thank you for your attention