SOLUGAS
Project ID: 219110
Funded under: FP7-ENERGY

Solar Up-scale Gas Turbine System

From 2008-11-01 to 2014-04-30

Project details

<table>
<thead>
<tr>
<th>Total cost:</th>
<th>Topic(s):</th>
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<tr>
<td>EUR 12 169 915</td>
<td>ENERGY-2007-2.5-04 - Improve the environmental profile of the CSP installations</td>
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<th>EU contribution:</th>
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<tr>
<td>EUR 5 997 752</td>
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<th>Coordinated in:</th>
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<td>Spain</td>
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<th>Call for proposal:</th>
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<tr>
<td>FP7-ENERGY-2007-2-TREN</td>
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<th>Funding scheme:</th>
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<td>CP - Collaborative project (generic)</td>
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Objective

The SOLUGAS project consists in the demonstration of a solar-hybrid power system with direct solar heating of a gas turbine’s pressurized air. In combination with highly efficient combined cycle systems or in cogeneration applications significant cost reductions for solar electric power generation can be achieved. The demonstration project will be the first commercial-scale system that can later be offered to customers in several configurations (combined cycle, cogeneration, etc). The project will prove the technological feasibility, performance and cost reduction potential of such power plants. A complete solar-hybrid gas turbine demonstration system will be designed and erected in the project. Major new developments include a tube receiver and a solar-adapted commercial gas turbine. The solar concentrator field and tower are laid out and built. Software tools will be used and extended to allow simulation of the components and system performance. The tools will be verified by comparing performance predictions with measured data. Later the tools will be applied to allow predictions for other commercial systems. This project will reduce the water consumption of CSP power plants and land usage by increasing the efficiency, this will reduce the investment and O&M costs and improve the enviromental profile of CSP power plants. This kind of improvements are necessary to make CSP systems more competitive with conventional electricity sources and other renewable energy sources.
Coordinator

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Subjects
Other Energy Topics

Last updated on 2014-06-04
Retrieved on 2019-05-30

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