Solar Up-scale Gas Turbine System

Fact Sheet

Project Information

**SOLUGAS**
Grant agreement ID: 219110

Funded under
FP7-ENERGY

Overall budget
€ 12,169,915

EU contribution
€ 5,997,752

Coordinated by
ABENGOA SOLAR NEW TECHNOLOGIES SA
Spain

Start date
1 November 2008
End date
30 April 2014

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 environmental profile of CSP power plants. This kind of improvements are necessary to make CSP systems more competitive with conventional electricity sources and other renewable

Field of science

/engineering and technology/electrical engineering, electronic engineering, information engineering/electrical engineering/power engineering/electric power generation/combined heat and power /engineering and technology/electrical engineering, electronic engineering, information engineering/electrical engineering/electric energy

Programme(s)

Topic(s)

Call for proposal

FP7-ENERGY-2007-2-TREN

Funding Scheme

CP - Collaborative project (generic)

Coordinator

ABENGOA SOLAR NEW TECHNOLOGIES SA

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Activity type

Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Website

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