

Press Release for immediate distribution

CSEM develops a concept for “Solar Islands” for Production of Electricity and Hydrogen

Neuchâtel / Alpnach, 3 May 2007 – CSEM, the Swiss Center for Electronics and Microtechnology, has signed a contract with the government of the Emirate of Ras Al-Khaimah (RAK) in the United Arab Emirates (UAE), to develop a prototype of a “Solar Island”. The aim of the project is to validate a concept for the large-scale transformation of solar energy into hydrogen and electricity at very low cost. It is funded by 5 mio US\$ by the Gouvernement of Ras al Khaimah. The plan is to build large “Solar Islands” floating in the sea. These giant floating islands will be fitted with solar panels which will convert solar energy into electricity and/or hydrogen. A prototype of such a solar island, equipped with thermal solar panels, is to be built and tested in the desert of the United Arab Emirates.

CSEM and its Emirates subsidiary have been assigned the task of implementing the project by the Ras Al-Khaimah Investment Authority (RAKIA). The project is being managed by the CSEM Centre in Alpnach. The concept of solar islands is based on patents which have been filed by CSEM, and the contract will also grant RAKIA the right to use these concepts.

Dr Thomas Hinderling, CEO of CSEM, is delighted that the government of RAK is to promote such an innovative project. “This is a real vote of confidence in us, as well as an opportunity to gather a lot of experience, through the setting up and implementation of the project, with a technology which is of the utmost importance for the future of our world’s energy supply. If the results turn out to be positive, they will have a significant influence on the future development and use of solar energy”.

Dr Khater Massad, representative of RAKIA and principal advisor to Crown Prince Sheikh Saud Bin Saqr Al Qasimi, is equally delighted: “Innovative technology is extremely important to the government of Ras Al-Khaimah. In CSEM we have found a first-class, reliable technology partner who hopefully will continue to surprise us with innovative ideas for a long time to come!”.

Construction of the prototype will begin in the middle of 2007. The first island will be built with a circular design measuring 100m in diameter. It is to be built in the desert, “hovering” above the desert sands and turning in the direction of the sun. A water-filled channel will enable the outer ring of the prototype island to float. The platform will correspond conceptually to the planned solar islands on the surface of the sea – construction of the prototype on dry land rather than out at sea makes it considerably easier to gather information on the feasibility of the project. It is envisaged that the prototype will go into operation by the end of 2008. It will contain, among other things, a thermal energy reservoir and will provide an energy supply 24 hours a day, irrespective of time of day or night. The target costs of the prototype system are estimated at less than US\$100 per m². The peak power will amount to approx. 1 MW, with an average power of 250 kW, while annual energy production is expected to reach 2.2 gigawatt-hours.

CSEM – an innovation center

Established in 1984, CSEM (Centre Suisse d'Electronique et de Microtechnique SA) is a private R&D centre specializing in microtechnology, nanotechnology, microelectronics, systems engineering and communications technologies. It provides its industry customers and partners with tailor-made, innovative product solutions based on its commercial and technological expertise, further expanded by the results of its applied research. Additionally, through the establishment of start-up businesses, it actively contributes to developing Switzerland as a centre of industry and commerce. To date, CSEM has established a total of 23 new enterprises with more than 500 employees.

More than 300 highly-qualified employees from the most varied scientific and technical fields work for CSEM in Neuchâtel, Zurich and Alpnach. They represent more than 20 different nationalities and constitute the basis of the company's creativity, dynamism and innovation potential.

Further information is available at www.csem.ch

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