tei Solutions, Mears Technologies and K2 Energy Collaborate for Improved Efficiency of Solar Cells

tei Solutions, Mears and K2 Energy to explore use of Mears Silicon Technology (MST) in solar cell development

TSUKUBA, JAPAN, December 20, 2010 — tei Solutions, an integrated foundry providing 100mm and 300mm R&D services, announces a collaboration with Mears Technologies, a US-based emerging materials technology company, to explore the use of the Mears Silicon Technology (MST) in the development and production of solar cells. Mears will utilize tei's 100mm Super Clean Fab to produce cells for testing in January 2011.

The MST technology involves the production of an altered or "nano-doped" layer of silicon that can be used in the manufacturing of silicon solar PV wafers; a process already proven in traditional semiconductor manufacturing. The introduction of this layer -potentially increases the efficiency parameter for Photovoltaic (PV) technology and solar power generation in silicon PV cells. By improving the efficiency parameter, the use of MST technology in the PV cell development process could reduce the amount of silicon required, potentially making PV cells significantly more effective and much less expensive.

"The impact of the MST technology in the processing of silicon PV cells could greatly benefit solar manufacturers," said Robert Mears, CEO of Mears Technologies, "tei Solutions provides the necessary expertise and services needed for a fabless company such as ourselves to develop and commercialize this exciting new technology to ultimately provide tremendous cost-savings for those producing solar cells."

Earlier this year, K2 Energy Limited, located in Sydney, Australia, acquired the exclusive rights to the MST IP for all solar applications from Mears Technologies. K2 has provided the funding necessary for the R&D required to test and develop Mears' MST technology for use by large-scale solar panel manufacturers.

"We are excited to embark upon this project with Mears Technology to support the growth of Photovoltaic development," said Shuji Ikeda, CEO of tei Solutions. "Our goal is to enable our customers to be successful by providing the R&D resources needed to commercialize new and emerging technologies."

About tei Solutions

tei Solutions is an integrated foundry providing 100mm and 300mm R&D services. From individual research collaborators to entrepreneurs and large corporations, customers utilize tei Solutions to accelerate the advancement of a wide variety of emerging, silicon-based technology applications in the nanotechnology, biotechnology, photovoltaic and clean energy markets. By offering a flexible business model, fully protected IP, and superior customer support, tei Solutions provides for the long-term vision of customers in a dynamic, ever-changing marketplace. tei Solutions is located in Tsukuba, Japan.

About MEARS Technologies

MEARS Technologies is an emerging materials technology company providing advanced silicon processes and engineering services to semiconductor device manufacturers and contract foundries. The company combines a core competency in materials engineering and quantum mechanics with deep semiconductor process technology know-how to optimize the power efficiency and performance of integrated circuits manufactured on deep sub-micron processes. With a licensing model and strong patent position covering breakthrough silicon structures, methods and processes, MEARS Technologies enhances the fundamental electronic properties of silicon without requiring new manufacturing equipment or the use of exotic materials.

About K2 Energy Limited

K2 Energy Limited is an Australian publicly listed company listed on the Australian Stock Exchange. (ASX Code "KTE") .
K2 Energy holds the exclusive worldwide rights to the Mears Silicon Technology for all solar energy applications from Mears Technologies Inc. For more information about K2 Energy Limited, please visit www.k2energy.com.au.