

## 29<sup>th</sup> July 2011

# QUARTERLY ACTIVITIES REPORT FOR THE QUARTER ENDED 30<sup>th</sup> June 2011

The Directors of K2 Energy Limited (ASX: KTE) provide the following report for the Quarter ended 30<sup>th</sup> June 2011.

#### **MEARS SOLAR**

K2 Energy Limited is pleased to update the market on the Company's solar program.

At the beginning of March K2 Energy was pleased to announce very successful results from the first phase of testing of ultra-thin MST<sup>TM</sup> solar cells, which were fabricated in the US. K2 is pleased to report that further testing has occurred on these solar cells, which has confirmed increases in power output of up to 60%.

An additional set of solar cells for testing were being fabricated at Tei Solutions, which is located at Tsukuba 50km Northeast of Tokyo. As we announced in April the testing of the set of solar cells has been affected by March earthquake in northeastern Japan. The TEI facility restoration process proved to be more difficult than originally anticipated and caused significant delay of our project. However the parts of the facility relevant to the project have been partially returned to the operation by end of June and our project has been restarted on July 1<sup>st</sup>.

Once all the measurements and analysis are complete, we expect to make a more detailed announcement.

The Tei results were originally due in December 2010. Initial delays followed by the March earthquake disrupted our original timetable.

Now that the Tei facility is operational, we expect that the current program of engaging with solar manufacturers in 2011 to be on track.

The MST<sup>TM</sup> technology involves the production of an altered or "nano-doped" layer of silicon that can be used in the manufacturing of silicon solar PV cells; a process already proven in traditional semiconductor manufacturing. This layer is introduced to increase the efficiency parameter for Photovoltaic (PV) technology and solar power generation in silicon PV cells. By improving the efficiency parameter, the use of MST<sup>TM</sup> technology in the PV cell development process reduces the amount of silicon required, potentially making PV cells significantly more efficient and much less expensive.

In 2010, K2 Energy Limited, located in Sydney, Australia, acquired the exclusive rights to the MST<sup>TM</sup> 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<sup>TM</sup> technology for use by large-scale solar panel manufacturers.



#### **RESEARCH GRANTS**

Various national governments are providing considerable funding for photovoltaic solar research. Mears Technologies and K2 Energy are examining the opportunities for research grants through Tei in Japan and Mears Technologies and K2 in the US and Australia.

#### MEARS TECHNOLOGIES INC.

K2 Energy committed to invest an additional USD250,000 for additional shares in Mears Technologies Inc., of which USD166,000 was subscribed during the quarter, with the balance due in December 2011. The Convertible Note investment the company held in Mears Technologies Inc. was converted into equity at the same time. As a result, K2 Energy now has a shareholding of over 5% in Mears Technologies Inc. and as well as additional warrants (options).

Mears Technologies Inc. has developed an advanced CMOS technology for use in computer chips, which it is now in the process of being commercialised. Mears Technologies Inc. is in discussions with major manufacturers and industry players, with the aim of signing licensing deals for the technology.

### **OIL AND GAS**

KTE retains its shareholding in Trey Resources I LLC, a US-based limited liability company. During the quarter there was no expenditure incurred in relation to this investment.