

**31 October 2019**

**QUARTERLY ACTIVITIES REPORT FOR THE QUARTER ENDED  
30<sup>TH</sup> SEPTEMBER 2019**

The Directors of K2 Energy Limited (ASX: KTE) (“K2”) provide the following report for the quarter ended 30<sup>th</sup> September 2019.

K2 Energy’s major activities during the quarter were its oil and gas activities in the USA, its solar energy activities and its interest in Atomera Inc. (“Atomera”).

**OIL AND GAS ACTIVITIES**

K2 has a 1% interest in the Horace Greeley oil and gas drilling prospect in Conecuh County, Alabama, USA with a 1% interest before casing point and 0.75% after casing point. An initial well was drilled on this prospect during the second-half of the last financial year, which was uncommercial.

Fletcher Petroleum is planning a well one mile east of this acreage that will be drilled in the near future. The operator of our prospect will make a recommendation on potentially drilling another well on the prospect after that occurs. Further evaluation and analysis of this oil and gas drilling prospect occurred during the quarter and is ongoing.

**ATOMERA INC.**

K2 Energy provided critical funding to Atomera Inc during its R & D development phase while they developed patentable technology for the silicon chip industry with energy saving and performance attributes. This funding converted into a significant interest in a NASDAQ listed corporation, being Atomera Inc. Atomera is a semiconductor materials and licensing company focused on deploying its proprietary technology into the semiconductor industry.

During the quarter, Atomera has increased the number of customer engagements from 19 to 25, with 50% of the world’s largest semiconductor companies being engaged. Multiple technology breakthroughs have been made and K2 is well placed to be a significant beneficiary on achieving commercialisation of the technology.

## **ATOMERA INC. (continued)**

The following is information on Atomera, which was announced on Nasdaq today.

Atomera Incorporated (NASDAQ: ATOM), a semiconductor materials and licensing company focused on deploying its proprietary technology into the semiconductor industry, today announced it has reached an agreement to license Atomera's Mears Silicon Technology (MST) technology to a leading semiconductor provider of RF products. Under the terms of this license, the company plans to integrate MST technology into next generation RF products for mobile 5G markets. Atomera's MST is a patented, quantum-engineered material which can enhance transistors to deliver significantly better performance in today's electronics.

"This customer executed a license with Atomera to give their designers a clear path to developing even more advanced devices based on Atomera's MST semiconductor technology," said Scott Bibaud, President and CEO, Atomera. "With the powerful combination of our partner's RF technology expertise and their foundry's manufacturing capabilities, we believe MST can enable new, higher performance devices and products for the 5G cellular market. We are proud to make our breakthrough technologies available to leading fabless semiconductor solution providers and to support them in delivering compelling products around the world."

The RF device market is growing rapidly. As an example, RF switches are used extensively in wireless systems like mobile phones for routing signals from the antennas to the transmit-and-receive chains. They are one of the highest volume semiconductor devices used today as several of these devices are typically contained in phones or IoT systems. 5G cellular products will incorporate a larger number of RF switches than current models. The RF switch market was valued at \$2.9 billion in 2018 and is projected to reach \$4.9 billion by 2025, according to InForGrowth. Moreover, according to recent estimates by Gartner, 5G capable phones will grow their share of the market from 10% in 2020 to 56% by 2023.

Atomera's integration license provides rights to this fabless company to design MST technology into their advanced RF SOI technology platform. Atomera will work with this large fabless company, and its foundry partner to integrate MST technology into their production environment to deliver significantly better RF products for the mobile 5G market. The license agreement is non-exclusive.

## **MEARS SOLAR**

K2 Energy owns the exclusive worldwide rights to the MST™ Technology for all solar energy applications.

K2 Energy funded a research and development solar program conducted by Atomera with the aim being to develop more efficient silicon-based cells utilising MST™. Atomera and K2 Energy agreed that the solar activities have entered the commercialisation/collaboration phase. K2 Energy, together with the assistance of Atomera, is seeking a solar group to joint venture or collaborate with, in order to commercialise the MST™ Technology. K2 is actively seeking a commercialization partner for its solar technology, and expects that the process will become much easier once Atomera enters into a commercialisation deal linked to production of products incorporating Mears Silicon Technology.

### **K2 Energy Limited**

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