

## GRAPHENE EMERGES FROM LABORATORY TO PRODUCT MANUFACTURING

Strategic Energy Resources Limited (ASX: SER) has signed a jointly funded Research Agreement with Monash University to develop a bench-scale facility for the production of graphene. Graphene is an allotrope of graphite, one atom thick. It is derived from indigenous natural graphite.

The facility, under the supervision of Dr Mainak Majumder, will move manufacturing out of the laboratory, allowing the supply of much larger quantities of graphene for our specific commercial goals, namely:

- **Super-capacitors**  
We are developing planar super-capacitors with massive energy and power density which could by-pass lithium ion batteries.
- **Super-sand**  
Our super-sand has multiple uses and we are concentrating on developing the super-sand specifically targeting biological contaminants.
- **Membranes**  
We will produce large area nano filtration membranes, for the mining and food processing industries.

The project is jointly funded by Monash University and Graphitech Pty Ltd, SER's wholly owned subsidiary. Monash is contributing \$100,000 towards the project with the balance paid by Graphitech. The graphene making facility will take 3 months to set-up and test and the setup will begin in November 2014. Graphitech will retain ownership of the facility, with Monash responsible for the maintenance and upkeep of the facility.

The building of the bench scale facility is a vital step towards our goal of commercialising our technologies. Initial batches of graphene production will be in the range of 1kg to 2kg per day.

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Anthony Rechner (Executive Director)  
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**Chief Executive Officer:**

Mark Muzzin

**Company Secretary:**

Melanie Leydin

**Securities on Issue:**

348,622,501 fully paid ordinary shares

28,000,000 unlisted options

**Website:**

[www.strategicenergy.com.au](http://www.strategicenergy.com.au)

The graphene bench scale facility is of major importance as our researchers will be able to manufacture and tailor graphene products for use in our applications.

Dr. Mainak Majumder said, “Our multi-disciplinary engineering research team at the Mechanical and Chemical Engineering Departments of Monash University will develop technologies that can be increased to multi kilogram scales, if necessity arises, while making graphene production significantly cheaper and greener”.

Dr Akshat Tanksale, co-investigator on this project said “large scale graphene production from graphite is a significant challenge which we will overcome by using robust reaction engineering approaches. The scale of our reactor is several times what has been demonstrated till date and the reactor technology, we are developing is highly modular.”

Graphene truly is a special material and it promises to revolutionise future developments in: energy storage, electric vehicles, aviation, water purification, medicines, military applications, computer developments and the list goes on. No other material has the potential to create such a paradigm shift in the world’s technology and chemistry.

**For further information or enquiries, please contact:**

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