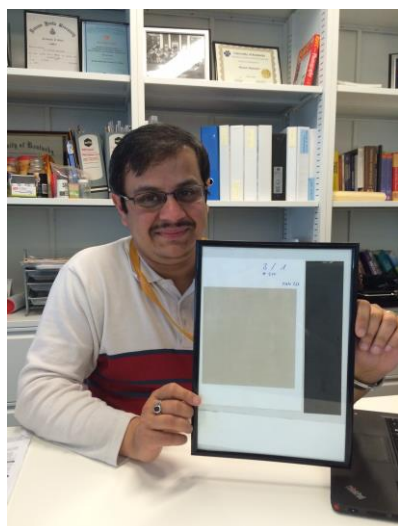




## Graphene membrane manufacturing machine to be acquired for ARC Linkage research program

Strategic Energy Resources Limited (ASX: SER), through our wholly owned subsidiary, Graphitech Pty Ltd, now operating under the brand name Ionic Industries, together with Monash University, under our Australian Research Council Linkage grant (ARC Linkage), are pleased to announce we are acquiring a membrane casting facility for our graphene membrane technology. This membrane casting facility will be used for our research project titled: 'Green Manufacturing of Graphene from Indigenous Natural Graphite and Graphene-based Nanofiltration Membranes'.

This is a very important step in our development of a scalable graphene membrane, which will have multiple uses in the mining and food processing industries. Graphene samples produced by our proprietary method were tested with the membrane casting equipment manufacturer and we are very pleased with the results obtained.



Dr Mainak Majumder with graphene membrane samples in his office: the darker samples were made at the lab at Monash and the new larger area, thinner, lighter, membrane produced on the casting machine to be acquired.

The new acquisition will enable our researchers to tailor the number of sheets of graphene that can be applied to the membrane substrate for specific purposes. The chemistry of the graphene oxide can also be altered to target whatever impurity or precious metals we seek to filter.

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Melanie Leydin

**Securities on Issue:**

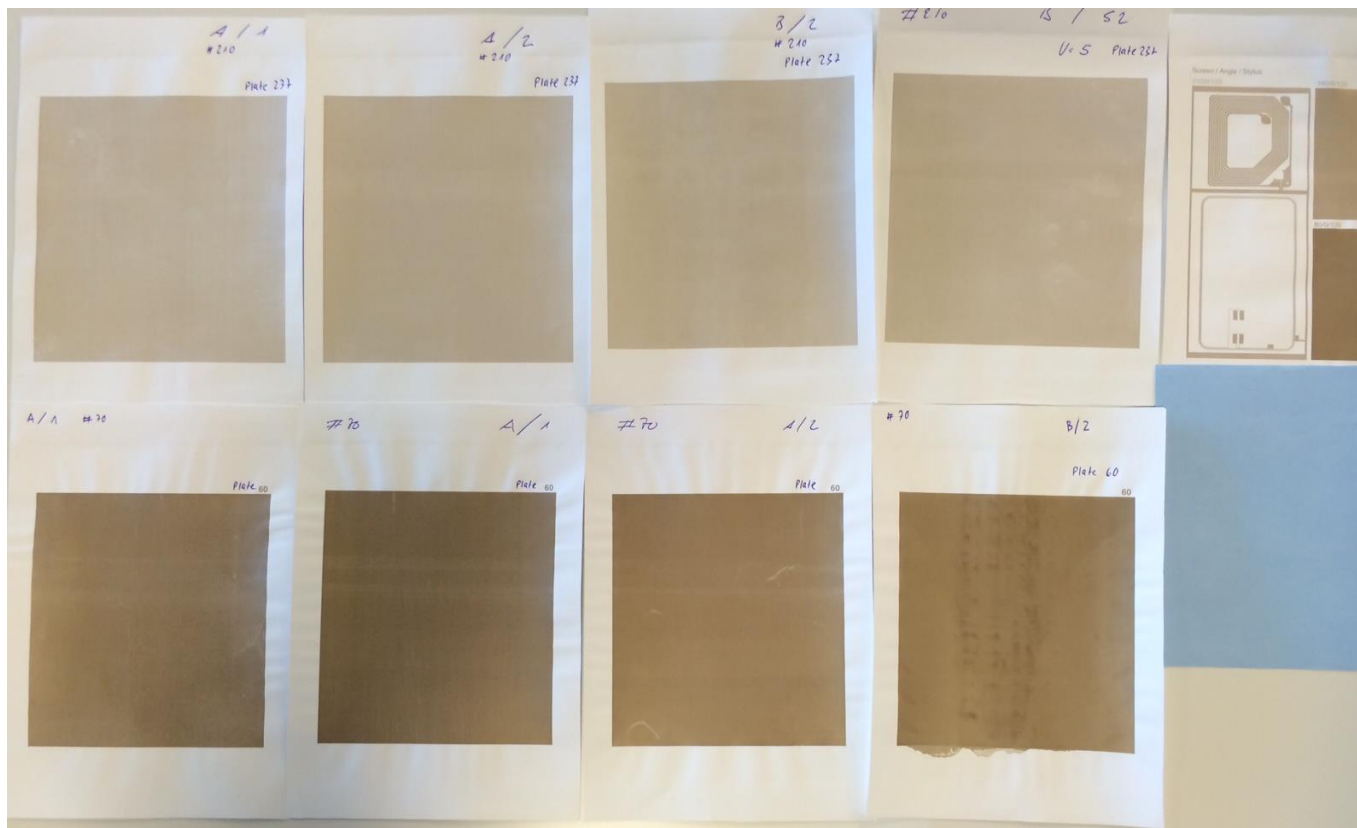
348,622,501 fully paid ordinary shares

27,000,000 unlisted options

**Website:**

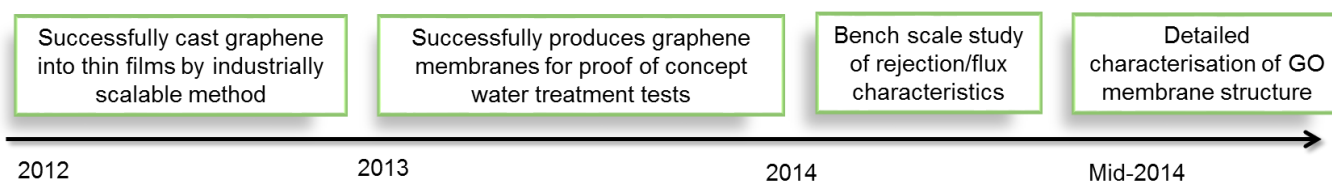
[www.strategicenergy.com.au](http://www.strategicenergy.com.au)

The other key benefit is being able to maintain consistency between the batches of membranes produced. This will allow us to substantiate the results from the various tests.



**Above are samples of our graphene thin film membranes. Darker shades indicate thicker number of layers of graphene.**

Our research team has hit a series of milestones in the development of graphene membranes for use in water treatment and mining applications. The technology is now at Technology Readiness Level 4: *Component and/or breadboard validation in laboratory environment*



Our ARC Linkage grant will commence in early 2015 but as you can see above, the team has been working on this technology for some time and are well advanced.

We are aiming to have a scoping study on our membrane technology undertaken during the second quarter of 2015.

The team involved is:

Dr. Mainak Majumder (Nanoscale Science and Engineering Laboratory (NSEL), Mechanical and Aerospace Engineering, Monash University, Clayton, Victoria)

Prof. Huanting Wang (Chemical Engineering, Monash University, Clayton, Victoria)

Dr. Zhe Liu (Mechanical and Aerospace Engineering, Monash University, Clayton, Victoria)

Prof. Dibakar Bhattacharyya (Chemical Engineering, University of Kentucky, USA)

Dr. Anita Hill (CSIRO, Clayton, Australia)

Mr Mark Muzzin from Ionic Industries

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