



Worley Parsons boosts SER's ambition on graphene super sand

Strategic Energy Resources Limited (ASX: SER) is pleased to announce the appointment of leading global engineering group Worley Parsons to initiate a scoping study for our graphene super sand.

Our aim is to have one of the world's first graphene production plants, with graphene super sand as our first commercialised product.

Key deliverables will include:

- Preliminary sizing of the facility
- Scaling up the existing laboratory process to provide an overall description of the pilot plant facilities CAPEX and OPEX. The CAPEX and OPEX will be based on a single stand alone R&D facility at an industrial site near Monash University in Clayton.

A marketing study will also be undertaken to ascertain demand which will provide a basis in establishing pilot plant capacity.

The Worley Parsons engineering input on the production of graphene oxide is beneficial for the Monash team, as the goal is to make commercial quantities of graphene oxide. Upscaling of the production of graphene oxide to commercial quantities is a key process for success of all our graphene based technologies.

To date, the wonder material graphene has shown enormous potential but very little tangible, saleable product. Success in our scoping work should lead SER to the production and ultimate sale of our graphene super sand.

"This is another major step for us towards our goal of commercialising our graphene technologies. We welcome the expertise of Worley Parsons as a team member of this exciting project", Mr Muzzin, CEO of SER said. "Everybody's talking about graphene but nobody is doing anything practical. We want to make something useful and manufacture graphene based products", Mr Muzzin went on to say.

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ASX Ticker:

SER

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Board of Directors:

Glenister Lamont (Non-Exec Chairman)
Anthony Rechner (Executive Director)
Peter Armitage (Non-Exec Director)

Chief Executive Officer:

Mark Muzzin

Company Secretary:

Melanie Leydin

Securities on Issue:

348,622,501 fully paid ordinary shares

27,000,000 unlisted options

Website:

www.strategicenergy.com.au

1) What is our graphene super sand?

Super sand is a core-shell arrangement of sand granules and graphene oxide. Graphene oxide is a suspension of water-soluble oxidised graphene nanosheets derived from graphite. Coating is obtained as a direct consequence of the water solubility of graphene oxide which allows for efficient mixing with sand. Using a low temperature solvent evaporation technique, graphene oxide adheres to the sand granule.

2) What does it do?

The graphene oxide coating, comprising a thin (micron scale) layer of graphene-like carbon, renders the sand surface more attractive to contaminants within water, thereby enabling removal or sequestering of contaminants by adsorption.

3) Why are we the only ones who make it?

One of the lead investigators of the original invention of "Super sand" was Dr. Mainak Majumder. His expertise and the subsequent research efforts of his research group find us well placed as leaders in the field of graphene based materials for water purification.

4) Why is it important to Australia?

Australia relies heavily on water to support its agricultural and mining sectors which must operate amid highly variable and constantly evolving climate and regulatory conditions. Consequently, water management and efficiency is of fundamental importance for sustaining and growing Australia's economic future. Super sand offers a means to aid or otherwise compliment water efficiency directives by separating target components from a water stream.

For further information or enquiries, please contact:

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