ASX ANNOUNCEMENT

1st October 2025

Solar thermal product range powered by PureGRAPH® released to UK market

Highlights

- **Roof integrated solar panel range released to UK market by Senergy Innovations, bringing considerable cost saving advantages to end users**
- **Additional novel conductive polymer materials developed by Senergy for products in automotive and heat exchanger market, including EV battery separator**
- **Product release strengthens case for PureGRAPH®'s growing role providing sustainable and efficiency solutions to energy generation and energy management sector**
- **UK solar market anticipated to grow rapidly as Future Homes Standard policy takes full effect in 2027**

First Graphene Limited (ASX:FGR; "First Graphene" or "the Company") is pleased to announce a solar technology and automotive product range developed by sustainable energy solution provider Senergy Innovations ("Senergy") has been released to market.

A total of seven products manufactured by Ireland-based Senergy are now fully commercially available covering on-roof solar thermal, integrated solar thermal and automotive technologies.

Due to escalating power densities in electronics, information and automobile technologies, heat dissipation to reduce overheating has become essential for efficient performance.

Senergy's thermally conductive materials bring effective heat dissipation that enables lighter weight, lower embodied carbon and streamlined manufacturing benefits to targeted applications.

Reducing heat improves solar performance

Heat exchange technology developed by Senergy contains polymers incorporating FGR's PureGRAPH®, which improve conductivity and efficiency required for heat energy transfer in solar, where a multitude of additional benefits can be realised.

This polymer material, which can be processed into complex shapes required for solar panels while maintaining functional properties, replaces and combats challenges faced by using traditional materials, such as low conductivity and temperature tolerance.

Senergy's panels are proven to save up to 60% of household water heating energy costs, are up to four times more efficient than traditional photovoltaic (PV) heating and can be located on-roof or integrated into roof design.

The integrated style recently won the Best Renewable Product Award category at the Sustainable Energy Authority of Ireland (SEAI) Show in July 2025.

This award came as the UK prepares to introduce the Future Homes Standard[1], which will require almost all new home builds to contain renewable energy generation, which in the vast majority of cases will be solar panels as a "functional requirement".

Senergy is planning to increase production and rollout of its panels to 250,000 homes across the UK, a market forecast to be the fifth largest in terms of market expansion over the next decade[2].

The business has already installed its panels at various sites in Ireland and Stoneybrook University in New York.

An alternative to metals in EVs

Polymer engineering using PureGRAPH® developed through Senergy's dedicated SenTherm product range[3] has established five high performance automotive grade polymers.

These are being used to improve thermal management and reduce weight by replacing common metal components in electric vehicles (EVs):

- Three thermally conductive resins for injection moulding.
- Thermally conductive, electrically isolative resin for injection moulding.
- Thermally conductive resin for extrusion.

The use of polymers to achieve thermal conductivity offers substantial advantages compared to metal-based technologies in terms of weight reduction, corrosion resistance, design flexibility, lower embodied carbon and manufacturing simplicity, enabling a superior product.

First Graphene Managing Director and CEO Michael Bell said:

"Senergy's commercialisation of several material technologies containing PureGRAPH® is another demonstration of how our product can be used to improve performance across a range of applications.

While the Senergy's orderbook for PureGRAPH® is not yet significant, their aspiration to rollout solar thermal technology to 250,000 homes means demand is set to lift.

In the UK, demand for solar thermal water heating is being supported by grants and rebates incentivising end users to adopt this technology.

Congratulations to Senergy's team for its commercialisation step, becoming one of several recent First Graphene customers strategically incorporating PureGRAPH® into their products and validating its benefits."

Senergy Innovations CTO Findhan Strain said:

"Thermally conductive polymers (TCPs) offer huge potential advantages for mass manufacturing heat exchangers.

Senergy's technology uses proprietary polymers and design to achieve next generation polymer heat exchangers, giving a highly viable alternative to metallics for industries such as solar, automotive and industrial heat exchangers.

Our technology enables very good heat transfer but also address shortfalls of existing TCPs in that they are durable and can be manufactured using traditional polymer moulding methods such as injection moulding and extrusion."

-Ends-

This release has been approved for release by the Chairman.

[1] Rooftop solar for new builds to save people money

[2] Solar Water Heater Market Size and Share Forecast Outlook 2025 to 2035

[3] SenTherm automotive grade technical datasheets

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About First Graphene Ltd (ASX: FGR)

First Graphene Limited is focused on the development of advanced materials to help industry improve. The Company is a leading supplier of graphitic materials and product formulations with a specific commercial focus on large, high-growth global markets including cement and concrete; composites and plastics; coatings, adhesives, sealants and elastomers (CASE); and energy storage applications.

One of the key outcomes these advanced materials offer is the reduction of carbon dioxide emissions, whether directly through a reduction in output of these harmful greenhouse gases or lower energy usage requirements in manufacturing, or indirectly due to enhanced performance characteristics and extending the usable life of products.

First Graphene has a robust manufacturing platform based on captive and abundant supply of high-purity raw materials, and readily scalable technologies to meet growing market demand. As well as being the world's leading supplier of its own high performance PureGRAPH® graphene product range, the Company works with multiple industry partners around the world as a supplier of graphitic materials and partner to research, develop, test and facilitate the commercial marketing of a wide range of sector-specific chemical solutions.

First Graphene Ltd is publicly listed in Australia (ASX:FGR) and has a primary manufacturing base in Henderson, near Perth, WA. The Company is incorporated in the UK as First Graphene (UK) Ltd where it has a strong R&D capability.