Perth, Australia
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SOR Energy Ink™ - Energy from Moisture

Strategic Elements Ltd (ASX: SOR) provides the following development update for the Energy Ink™ , a revolutionary technology that generates energy from moisture.

Australian Advanced Materials (AAM) has commenced the development of a prototype Energy Ink™ cell designed for potential use in renewable energy generation and is initially focusing on testing the potential maximum power density of the material properties of the graphene oxide-based ink.

The program's short-term goal is to develop a prototype cell demonstrating a peak power density of >20mW per cm2 (exceeding solar). Due to the early-stage nature R&D nature of the technology, an unexpectedly large amount of patenting work and grant finalisation delays, the Company has updated the timeframe for this goal to Q4, 2023.

The power density investigation is part of a broader development program to test the technology's upper energy generation limits. This program includes stacking ultra-thin cells into an Energy InkTM 'Cube'. As with the cell for sensors, the team will seek to rapidly advance initial low efficiency, durability, and other performance characteristics by material selection and manipulating different fundamental properties.

The initial application is focused on coupling an Energy Ink™ Cube with a 3rd party battery to enable renewable energy to be stored and released (or dispatched) on demand. The fundamental upper limit of aspects such as maximum power output, duration and energy density remains unknown however potential market entry is focused on where solar, or grid energy is impractical or too expensive.

Notwithstanding the normal technology investment risks associated with breakthrough discoveries, the Company believes the potential benefits of the Energy Ink™ are too great to ignore. The Energy Ink™ generates energy from moisture, a green, readily available source and uses safe, non-flammable, and environmentally friendly materials. Importantly, Energy Ink™ cells do not require sunlight and can generate energy indoors or at night. As they are ultra-thin and light, there is the potential to layer many cells vertically (as opposed to single layers like solar panels), dramatically increasing the energy generated from a much smaller footprint and creating the potential for mobility.

The Australian Federal Government has registered Strategic Elements as a Pooled Development Fund with a mandate to back Australian innovation. The Company supports leading Australian scientists and innovators in high-risk-high reward ventures. SOR majority funds the initial development of each Venture whilst seeking a major strategic investor/partner able to assist commercialisation.

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This announcement was authorised for release by the Strategic Elements' Board of Directors.