ASX Announcement

2 November 2026

Global Drexel MXene Licence Unlocks Broader Commercialisation Pathway for ECT

Highlights:

- **Global commercialisation rights:** worldwide, non-exclusive licence from Drexel University, where MXenes were discovered, enabling Xenica to make, use, import and sell MXenes for specified commercial applications
- **Key commercialisation barrier addressed:** complements Xenica's existing MXene Inc. defence sublicence, substantially expanding the markets ECT can pursue
- **New industrial market opportunities:** including energy storage, supercapacitors, fast-charging batteries, industrial coatings and PFAS water filtration
- **Core manufacturing platform assembled:** Rice University production technology, Metallium's commissioned U.S. reactor infrastructure, MAX Phase precursor supply, defence-market rights and now broader commercial rights, subject to completion of the Xenica acquisition
- **Clear pathway to commercial sales:** next priorities are repeatable production, independent product validation, customer qualification and commercial agreements
- **Defence remains the initial priority:** existing defence strategy unchanged, with the ability to pursue parallel opportunities in other licensed markets

Environmental Clean Technologies Limited (ASX: **ECT**) ("**ECT**" or "**Company**") is pleased to announce that Xenica, Inc. (a wholly owned subsidiary of its acquisition target Xenica Pty Ltd) ("**Xenica**") has secured a licence with Drexel University ("**Drexel**"), granting it a non-exclusive global licence to make, use, import and sell MXenes for specified commercial use (the "**Licence**"). The Licence extends Xenica's market rights from defence into a broad range of industrial applications. Combined with its production technology, reactor access, precursor supply and defence sublicence, and subject to completion of the Xenica acquisition, ECT has now assembled the principal technology, manufacturing infrastructure and licensing arrangements required to pursue commercial MXene production and sales. The focus now moves to execution.

What the Drexel Licence Means for ECT

MXenes were discovered at Drexel in 2011, and Drexel holds key foundational patents covering MXene compositions. Until now, Xenica's licensed market rights covered military and defence-related end uses under the MXene Inc. sublicence (refer to ASX announcement 14 September 2026).

The Drexel Licence extends those rights to specified commercial applications. ECT can now pursue customer engagement, product development and partnerships across a much wider range of licensed applications without negotiating separate access to the same Drexel patent rights for each opportunity. It marks ECT's shift from acquiring technology to assembling the components of a commercial manufacturing business. The

Licence is non-exclusive and subject to defined exclusions (see Key Licence Terms and Exclusions), and does not by itself provide freedom to operate across every MXene application.

ECT's Assembled MXene Commercialisation Platform

On completion of its acquisition of Xenica (expected over the coming weeks), ECT's MXene platform will comprise:

Requirement	ECT's position	Commercial significance
Production technology	Exclusive Rice University FJH licence to produce MXenes and two-dimensional amorphous carbon (ASX: 4 August 2026)	Potentially differentiated MXene manufacturing process
Manufacturing infrastructure	Access to Metallium Ltd's (ASX: MTM) commissioned Gator Point FJH reactor under the R&D and Engineering Agreement (ASX: 4 August 2026)	U.S. reactor infrastructure for scale-up without building a plant
Precursor supply	Initial defence-friendly MAX Phase precursor secured (ASX: 19 August 2026)	Feedstock for manufacturing development
Defence-market rights	Military end-use sublicence from MXene Inc. (ASX: 14 September 2026)	Licensed defence-related applications
Broader commercial rights	Drexel University Licence (this announcement)	Specified additional industrial applications
Product qualification	First MXene produced (ASX: 9 October 2026); repeatability, validation and sampling to follow	Remaining step towards customer acceptance and sales

The Drexel Licence and the MXene Inc. sublicence together give Xenica licensed market access across defence and a broad range of commercial applications. Some applications remain outside both arrangements, notably non-military electromagnetic interference shielding, antennas and infrared shielding. The principal licensing and infrastructure elements are now in place or contracted. What remains to be demonstrated is commercial readiness: producing MXenes to customer specification, repeatably and economically at scale.

Commercial Market Opportunities

Defence remains ECT's initial market, where procurement is performance-led and ECT is seeking to establish a U.S. source of MXene. With the Drexel Licence, the opportunity no longer ends at defence. Licensed commercial applications include:

- **Energy storage** – supercapacitors and fast-charging batteries, where MXenes' conductivity and surface area are being researched for electrodes and conductive additives
- **Industrial coatings and composites** – other than electromagnetic interference shielding applications
- **PFAS water filtration** – a natural fit with ECT's existing PFAS destruction platform
- **Other applications** – further commercial uses covered by the Licence

Each of these applications is a potential opportunity for ECT to supply MXene materials to product manufacturers, formulators and industrial partners, subject to product performance, qualification and commercial agreements. The Licence allows ECT to pursue multiple customer and product development programs while defence remains the first priority.

Next Steps Towards Commercial Sales

ECT's pathway from licensed rights to commercial sales follows a defined sequence:

1. **Complete the Xenica acquisition**
2. **Demonstrate repeatable FJH MXene production** with improving yield and consistency at Gator Point (first MXene produced, refer to ASX announcement 9 October 2026)
3. **Validate material quality and application-specific performance** through independent characterisation
4. **Supply samples and progress customer qualification**, starting with defence customers
5. **Establish production economics and secure commercial arrangements** with customers and partners

Defence remains the first commercialisation priority and ECT's near-term defence milestones are unchanged. Industrial programs will not need to wait until defence is fully commercialised: different markets require different product grades and functional characteristics, and ECT intends to progress selected opportunities in parallel as production capability develops. Any revenue remains subject to successful scale-up, material meeting customer specifications, customer qualification and commercial agreements.

Key Licence Terms and Exclusions

The Licence is worldwide and non-exclusive, and enables Xenica to make, use, import and sell MXene materials for commercial applications ***except*** for any applications in electromagnetic interference shielding, dialysis, biosignal electrodes, antennas, infrared shielding and military end use. Military end use is addressed under the separate MXene Inc. sublicence. The other excluded applications are not covered by the Licence, and are covered by the MXene Inc. sublicence only to the extent they are military end uses. The Licence continues until expiration of the patent rights, and Drexel will be entitled to a royalty on future sales.

Executive Chairman Faldi Ismail said: "The Drexel Licence is a significant milestone for ECT. It substantially expands the commercial MXene rights available to our platform, taking us from defence into a broad range of industrial applications.

"We are not starting from scratch. In three months we have brought together exclusive production technology, access to a commissioned U.S. reactor, precursor supply and licensed market access. The Drexel Licence adds an important piece of that framework.

"Defence remains our first market, but we can now pursue industrial opportunities in energy storage, coatings and filtration in parallel. Our job is to convert these capabilities into repeatable manufacturing, qualified products, customers and, ultimately, revenue. That is where our focus now lies."

This announcement has been authorised for release by the Board of Directors of ECT.

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Forward-looking Statement

This announcement may contain forward-looking statements regarding future events or performance, including but not limited to projections of financial results, anticipated growth, and business strategies. These forward-looking statements are based on current expectations, assumptions, and projections that involve inherent risks and uncertainties. Actual results may differ materially from those anticipated due to various factors, including market conditions, regulatory changes, technological advancements, and economic conditions.

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