

Submission Summary

Our innovation uses genetically engineered *Chlorella*, a type of green algae, to recover valuable materials like lithium from electronic waste (e-scrap). Traditional methods of extracting lithium from minerals or brine are resource-intensive and harmful to the environment, but our technology offers a greener alternative. This method can recover lithium from e-scrap with lower energy use, less water consumption, and minimal toxic waste, making it both environmentally friendly and cost-effective.

As demand for lithium grows, especially in the electric vehicle and renewable energy sectors, our technology can help meet this need by recycling lithium from e-scrap instead of relying solely on mining. We've already demonstrated this process in the lab and are now working on scaling it up to industrial levels.

This technology not only addresses the growing demand for critical materials but also offers a sustainable solution to the environmental challenges associated with traditional extraction methods.

Our goal is to establish a pilot plant by 2025, significantly reduce the costs of lithium extraction by 2026, and fully integrate this technology into commercial operations by 2030. We're also exploring the potential to recover other critical materials from e-scrap, which could further reduce environmental impacts and support a circular economy.