

14 October 2025

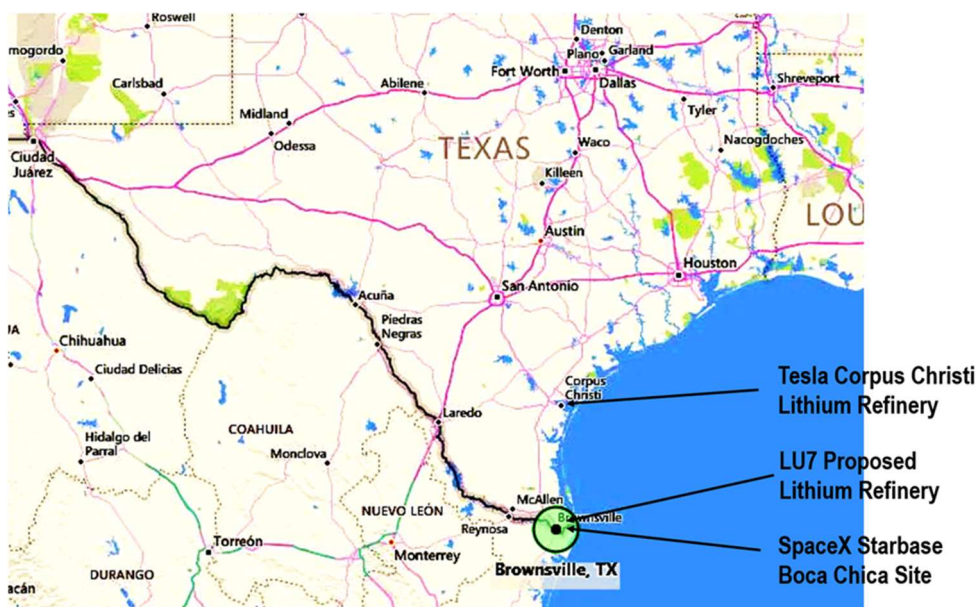
LU7 LAUNCHES SECOND LITHIUM REFINERY STRATEGY IN BROWNSVILLE, TEXAS

Highlights

- LU7 launches a **second lithium carbonate refinery strategy** in Brownsville, Texas, complementing its flagship Bécancour project in Québec
- Brownsville PV Recycling site under evaluation is large enough to accommodate **two lithium carbonate refinery trains** alongside recycling operations
- Direct maritime transport at **Port of Brownsville enables spodumene deliveries** from U.S., Brazil, and Africa
- Texas advantages: **cheaper labour, low capital intensity**, streamlined permitting, strong investor appetite, and one of the most business-friendly jurisdictions in the United States
- **Closer to U.S. battery markets**, cutting transport costs and strengthening supply chain resilience
- **U.S. Government investment and policy** support aligned with strategy of self-reliance in critical minerals and processing
- Diversified feedstock plan leveraging U.S., Brazilian, and African spodumene production
- Located near SpaceX Boca Chica site and 230 km south of Tesla LiOH Corpus Christi Refinery
- **Bécancour refinery remains LU7's priority**, but Brownsville offers an expansion platform to meet surging North American demand
- **"Copy & Paste" design from Bécancour**: remove cold-weather modifications, add hurricane compliance for Gulf Coast conditions

Lithium Universe Limited (ASX: LU7, "Lithium Universe" or "the Company") is pleased to announce the launch of a **second lithium refinery strategy at Brownsville, Texas**. Building on the success of its Bécancour Lithium Refinery Project in Québec, LU7 now positions itself to establish a twin-plant refining platform across Canada and the United States. By expanding into Texas, LU7 reinforces its mission to **close the "Lithium Conversion Gap"**—the **critical shortage of refining capacity in North America**. This shortage represents one of the biggest bottlenecks in the global clean energy supply chain, where local EV and battery gigafactory capacity is

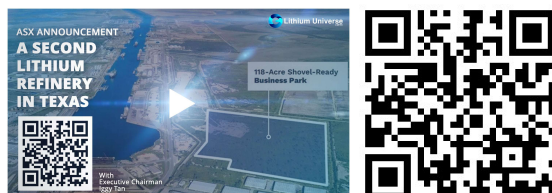
rising rapidly, but conversion of spodumene to battery-grade lithium carbonate remains overwhelmingly dependent on China. Tesla is building and commissioning a lithium hydroxide refinery in Corpus Christi in Robstown, Texas, roughly 230 kilometres north of Brownsville. **Proximity to SpaceX's Starbase facility at Boca Chica** adds further advantages in terms of infrastructure, logistics, and workforce skills.



Map: Location of LU7 Proposed Second Lithium Refinery Site

VIDEO COMMENT BY EXECUTIVE CHAIRMAN – IGGY TAN

<https://youtu.be/UGzw67MX7Vg>



MARKET CONTEXT: THE LITHIUM CONVERSION GAP

North America faces a widening conversion deficit. While gigafactory capacity is projected to reach 1,000 GWh by 2028, lithium conversion capacity lags far behind. Only ~100,000 tpa of hard rock converters are currently slated for development in the region, versus ~850,000 tpa required. The result is a structural shortfall that threatens North America's EV and energy storage ambitions. LU7's strategy—to **advance both Québec and Texas refineries**—directly addresses this bottleneck, positioning the Company as a leader in bridging the gap.

BROWNSVILLE AND BÉCANCOUR: COMPLEMENTARY GROWTH

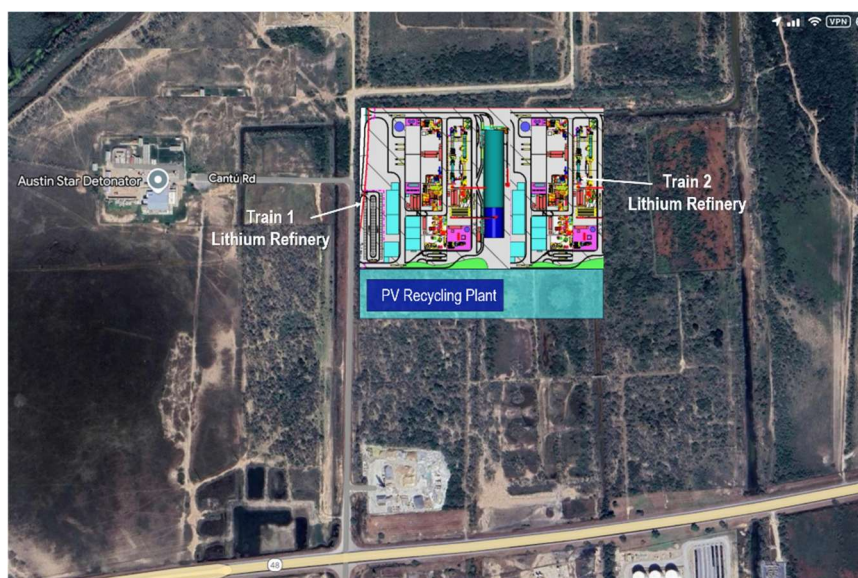
LU7 emphasises that Bécancour remains its first priority, with the DFS already completed and offtake discussions advancing. The Texas project is structured as a parallel growth pathway:

- Québec as the Trans-Atlantic hub, powered by Hydro-Québec's renewable energy, serving Canada and Europe.

- Texas as the U.S. hub, integrated with Gulf Coast logistics and closer to domestic gigafactories.
- Together, the two projects form a binational refining platform, de-risking supply, diversifying geography, and maximising exposure to incentives across both Canada and the U.S.

BROWNSVILLE: A DUAL OPPORTUNITY SITE

The Port of Brownsville Business Park has been under evaluation by LU7 for its PV recycling project. Detailed site assessments confirm the land parcel is **sufficiently large enough to accommodate two full lithium carbonate refinery trains** in addition to the recycling operations. This dual opportunity allows LU7 to establish a multi-commodity clean energy hub, producing both recycled metals and fresh lithium carbonate on the same footprint.



Map: Location of LU7 Proposed Second Lithium Refinery Site with Two Trains and PV Recycling Project Under Evaluation

The Company is assessing a potential site in the Business Park that is within the Port of Brownsville. The site identified for Lithium Universe demonstrates a highly strategic location for developing a **large-scale industrial facility**. Situated within the Port of Brownsville's industrial precinct, the property benefits from immediate access to existing heavy-industry infrastructure, utilities, and transportation corridors. Its proximity to petrochemical plants, storage terminals, and pipeline networks highlights the area's long-standing role as a hub for energy and processing industries, ensuring availability of essential services such as high-capacity electricity, process water, and natural gas. The site lies adjacent to Chemical Road and State Highway 48, providing efficient truck access for inbound end-of-life PV panels and outbound recovered products such as silver, silicon, and other critical metals. Just across the channel, **deep-water port facilities allow direct maritime transport**, enabling receipt of panel waste and shipment of recovered materials to both U.S. and international markets. Rail access within the industrial park further enhances logistical flexibility, ensuring the facility can cost-effectively serve solar markets across North America.

From an operational perspective, the flat topography of the site under evaluation, and clear **industrial zoning** simplify site development, minimizing costly earthworks or permitting delays. The large, rectangular shape of

the property allows for efficient plant layout, with space to accommodate delamination, metal recovery, warehousing, and future expansion modules. Furthermore, the location within a designated industrial corridor ensures compatibility with neighbouring uses, limiting community resistance and environmental permitting obstacles. In summary, the Port of Brownsville Business Park site combines critical advantages: deep-water port access, multimodal transport links, existing industrial infrastructure, and sufficient land area for scalable operations.

COPY & PASTE: LEVERAGING THE BÉCANCOUR DFS

The Bécancour Definitive Feasibility Study confirmed a robust lithium carbonate refinery with an NPV of US\$718m, IRR of ~21%, and payback under four years (see ASX announcement dated 17 February 2025 for more information).

By copying the Bécancour refinery design directly, LU7 ensures Brownsville benefits from:

- A proven, continuous Jiangsu process flow, eliminating batch inefficiencies.
- 18,270 tpa production capacity per train, scalable to 36,000+ tpa with two trains.
- Reduced engineering time and cost, as detailed design and supplier networks are already established.
- Immediate integration of all Jiangsu lessons-learned, including purification units to guarantee battery-grade quality.

Unlike Québec, which required extensive cold-weather modifications for Bécancour, Texas engineering will focus on hurricane resilience. Structural reinforcements, elevated substation platforms, and emergency drainage design will be integrated from the outset, ensuring safety and operational reliability in the Gulf Coast environment.

TARGET SITE - PORT OF BROWNSVILLE BUSINESS PARK, TEXAS

LU7 believes that Brownsville, Texas, stands out as a compelling location for establishing its second lithium refinery site in North America. The Port of Brownsville is a **deep-water seaport with direct U.S.–Mexico border** access and multimodal transport links, including sea, rail, and road. Ongoing upgrades, such as the Brazos Island Harbor Channel deepening from 42 to 52 feet, will allow larger vessels and heavier cargo, strengthening its role as a logistics hub for bulky solar panels and recycled materials. The site is at a newly developed **118-acre business park that provides shovel-ready industrial land** with storage, utilities, and excellent connectivity. The region also benefits from relatively low land and labour costs compared to coastal California, lowering both capital and operating expenses. **Proximity to SpaceX's Starbase facility at Boca Chica** adds further advantages in terms of infrastructure, logistics, and workforce skills.

Brownsville, Texas offers a compelling location for building a project, with a young and growing population of over 190,000 and a metro workforce exceeding 420,000. While higher education levels are still developing, this translates into an abundant, trainable labour pool with strong vocational and technical program support from Texas Southmost College, UT Rio Grande Valley, and other local institutions. The city has access to a readily available workforce eager for skilled industrial opportunities. Combined with supportive infrastructure, training pathways, and strategic location near transport corridors, Brownsville provides both the people and the potential to sustain a long-term refinery operation.



Brownsville offers a unique low-cost, high-capacity platform for PV recycling growth. The Company is actively evaluating a potential industrial lot in Brownsville to determine its suitability for establishing both a pilot plant and a future large-scale commercial recycling project.

LOGISTICS AND GLOBAL FEEDSTOCK FLOWS

The Brownsville refinery would leverage its deep-water port to import spodumene concentrate from several strategic regions:

1. United States – Domestic spodumene projects in Nevada and North Carolina are advancing, with U.S. policymakers keen to secure offtake arrangements with U.S.-based refiners.
2. Brazil – Brazil's rapidly growing spodumene exports already form part of LU7's feedstock considerations for Bécancour.
3. Africa – Producers in Mozambique, Zimbabwe, and Namibia represent a secure and cost-competitive supply base, aligned with Western partners' strategy to diversify away from China.

Outbound logistics are also a benefit: battery-grade lithium carbonate from Brownsville can be shipped directly to U.S. Gulf Coast, Midwest, and Mexican gigafactories, reducing lead times and bypassing trans-Atlantic bottlenecks.

WHY SECOND REFINERY IN USA - POLICY TAILWINDS

Inflation Reduction Act

The Inflation Reduction Act (IRA) directly incentivises U.S. lithium processing projects by linking tax credits and subsidies to domestic supply chain development. Lithium carbonate produced at Brownsville would qualify for IRA credits, strengthening its competitiveness against foreign imports.

Tariffs and National Security

The U.S. has already imposed 25% tariffs on Chinese lithium carbonate and hydroxide. These measures, combined with supply chain security mandates, reinforce the need for domestic refining. The Brownsville refinery would align squarely with U.S. national policy to reduce dependence on Chinese supply chains.

Department of Energy and Federal Loan Programs

The U.S. Department of Energy's Loan Programs Office is actively deploying billions of dollars into critical mineral and battery infrastructure. LU7 intends to pursue these funding pathways for its Texas expansion, leveraging the Company's proven design and track record to attract U.S. federal support.

ECONOMIC ADVANTAGES OF TEXAS

Lower Labour and Capital Costs

Brownsville is one of the lowest-cost labour centres in the United States, with average wages significantly below coastal hubs like California. The city's relatively low land values, combined with abundant industrial space, reduces both capital expenditure (CAPEX) and operating expenditure (OPEX) compared to other North American locations.

Workforce and Training Pipeline

With a metro population exceeding 420,000 and an unemployment rate higher than the national average, Brownsville offers a ready, trainable workforce. Institutions such as Texas Southmost College and the University of Texas Rio Grande Valley provide tailored technical and vocational programs, including chemistry, process engineering, and renewable energy technologies. This pipeline ensures LU7 will have access to a sustainable, skilled labour pool for refinery operations.

Business-Friendly Jurisdiction

Texas' streamlined permitting regime, lighter environmental reviews, and supportive industrial policy provide a faster development pathway compared to many U.S. states. The state's political culture is highly receptive to industrial and energy ventures, reducing approval friction and increasing investor confidence.

Iggy Tan, Executive Chairman of Lithium Universe, said:

*“Brownsville represents an extraordinary opportunity to extend our lithium refinery strategy beyond Québec. The site’s scale, port access, and cost advantages provide us with a clear pathway to deploy a second copy-and-paste lithium carbonate refinery. Importantly, this initiative does not detract from our priority at Bécancour, where we are moving toward financing and construction. Rather, it positions us **to capitalise on U.S. policy momentum**. With the Inflation Reduction Act, Department of Energy programs, and clear **national ambitions for critical mineral independence**, the timing is ideal to establish a foothold in Texas. Our vision is to create a trans-Atlantic refining platform—two projects, one in Québec and one in Texas—serving North America’s rapidly growing demand. Together, these facilities will cement LU7 as a leader in bridging the Lithium Conversion Gap, supporting electric vehicles, stationary energy storage, and the global clean energy transition.”*

Authorised by the Chairman of Lithium Universe Limited



Lithium Universe Interactive Investor Hub

Engage with Lithium Universe directly by asking questions, watching video summaries and seeing what other shareholders have to say about this, as well as past announcements, at our Investor Hub <https://investorhub.lithiumuniverse.com/>

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Forward-looking Statements

This announcement contains forward-looking statements which are identified by words such as ‘anticipates’, ‘forecasts’, ‘may’, ‘will’, ‘could’, ‘believes’, ‘estimates’, ‘targets’, ‘expects’, ‘plan’ or ‘intends’ and other similar words that involve risks and uncertainties. Indications of, and guidelines or outlook on, future earnings, distributions or financial position or performance and targets, estimates and assumptions in respect of production, prices, operating costs, results, capital expenditures, reserves and resources are also forward-looking statements. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions and estimates regarding future events and actions that, while considered reasonable as of the date of this announcement and are expected to take place, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of our Company, the Directors, and management. We cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this announcement will occur and readers are cautioned not to place undue reliance on these forward-looking statements. These forward-looking statements are subject to various risk factors that could cause actual events or results to differ materially from the events or results estimated, expressed, or anticipated in these statements.

ABOUT LITHIUM UNIVERSE LIMITED

Lithium Universe Limited (ASX: LU7) is a forward-thinking company on a mission to close the "Lithium Conversion Gap" in North America and revolutionize the photovoltaic (PV) solar panel recycling sector. The company is dedicated to securing the future of green energy by addressing two major strategic initiatives: the development of a green, battery-grade lithium carbonate refinery in Québec, Canada, and pioneering the recycling of valuable metals, including silver, from discarded solar panels.

Lithium Strategy: Closing the Lithium Conversion Gap

Lithium Universe is at the forefront of efforts to meet the growing demand for lithium in North America. As electric vehicle (EV) battery manufacturers prepare to deploy an estimated 1,000 GW of battery capacity by 2028, the need for lithium is expected to rise dramatically. However, with only a fraction of the required lithium conversion capacity in North America, LU7 is determined to play a pivotal role in reducing dependence on foreign supply chains. The company is building a green, battery-grade lithium carbonate refinery in Bécancour, Québec, leveraging the proven technology developed at the Jiangsu Lithium Carbonate Plant. This refinery will produce up to 18,270 tonnes per year of lithium carbonate, focusing initially on the production of lithium carbonate for lithium iron phosphate (LFP) batteries. The refinery's smaller, off-the-shelf plant model ensures efficient operations and timely implementation, positioning LU7 as a key player in the emerging North American lithium market. With a strong leadership team, including industry pioneers like Chairman Iggy Tan, LU7 is well-positioned to deliver this transformative project. The company's strategy is counter-cyclical, designed to build through the market downturn and benefit from the inevitable recovery, ensuring sustained exposure to the growing lithium demand.

PV Solar Panel Recycling Strategy: Silver Extraction

As the global demand for solar energy expands, the issue of solar panel waste has grown exponentially. With an estimated 60–78 million tonnes of solar panel waste expected by 2050, the need for efficient recycling solutions is more critical than ever. Lithium Universe has responded by acquiring the Microwave Joule Heating Technology (MJHT) from Macquarie University, a groundbreaking innovation for extracting valuable metals from discarded PV solar panels. The company's first focus is on the recovery of silver, a critical component in solar panel manufacturing. Silver's excellent electrical conductivity makes it indispensable in photovoltaic cells, where it forms the electrical contacts for electricity flow. The technology developed by LU7 enhances the extraction of silver, silicon, gallium, and indium, addressing a major gap in the recycling industry. With the price of silver soaring due to increasing demand in solar and electronics, LU7's efforts in silver recovery are timely and essential for sustaining the global clean energy supply chain. This breakthrough technology significantly reduces the environmental impact of solar panel waste by offering a more efficient, cost-effective, and environmentally friendly recycling solution. As the company progresses, it plans to expand its focus to other critical metals like copper and indium, ultimately contributing to the global circular economy.

Lithium Universe is committed to ensuring that both its lithium and PV solar recycling strategies help meet the world's growing demand for clean energy, while offering a sustainable solution to the challenges of resource scarcity and waste management.