



# Growth with Geothermal Lithium

Executive Guide

 Lithium Harvest

# Unlock Dual Revenue

## Executive Summary

Turn geothermal brine into a decision-grade lithium revenue opportunity - without disrupting power/heat production, with Lithium Harvest taking execution and operations under DBOO.

### The opportunity

- **Dual revenue:** Your brine loop can support a second revenue line from lithium, while power/heat stays primary.
- **Side stream integration:** A co-located side stream unit can extract lithium without turning your plant into a lithium operation or changing the core loop.

### What Lithium Harvest does

- Integrates lithium extraction with industrial water treatment and separation engineered for real geothermal brine variability.
- Deploys modular, co-located systems designed for staged scale-up.
- Runs the project end-to-end under DBOO: Design, Build, Own, Operate - within defined site interfaces.

### Why now?

- **Structural demand:** Lithium demand is accelerating while new supply is constrained by permitting friction, timelines, and capital intensity.
- **Buyer preference:** Offtakers reward deliverable, traceable supply - not long-dated projects.
- **Strategic fit:** Geothermal offers baseload brine flow and existing infrastructure, supporting localized supply positioning.

### Why it's low-friction

- **Core focus:** You don't become a lithium operator. Lithium Harvest owns execution and runs day-to-day operations; you share upside without building a new team.
- **Decision-grade validation:** Feasibility is confirmed through project-specific validation (data review, sampling, and on-site testing when needed) before any major capital commitment.

## The Lithium Market: Structural, Not Cyclical

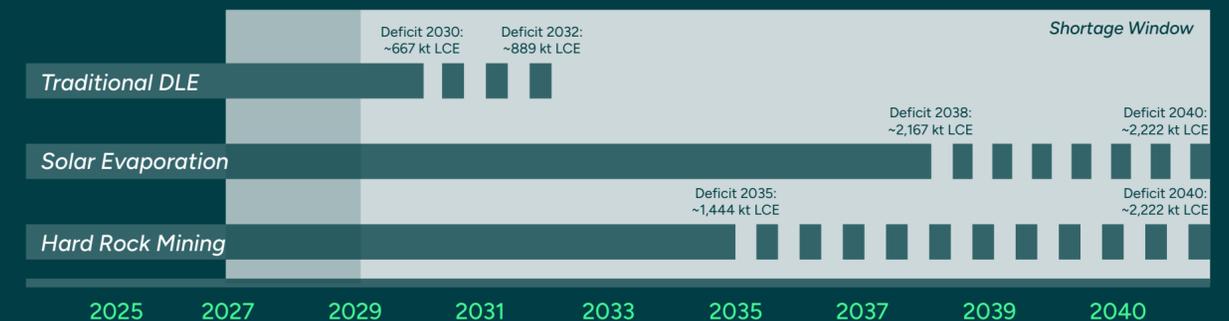
The real risk in the lithium market isn't demand. It's whether a credible supply can be brought online fast enough.

### Demand outlook

- Consensus forecasts suggest 2-3x 2024 demand by 2030 (16% CAGR).
- High-adoption scenarios project demand could reach 5x current levels by 2040.
- EV and grid storage are pulling demand, reinforced by policy and corporate electrification.

### Supply can't scale fast enough with legacy models

- **Legacy delays:** Hard-rock mining typically requires 10-17 years from discovery to first production. Evaporation ponds take 13-15 years to ramp.
- **The deficit window:** Base-case outlooks show supply deficits emerging in the late 2020s and widening into the 2030s.



### Supply chain concentration

- 77% of raw lithium comes from just three countries (Australia, Chile, China).
- 70% of refining is concentrated in China.
- The pivot: Western buyers and governments are pushing for regional, traceable supply to reduce single-point dependency.

### What the market rewards now

- **Local and secure Supply:** Reducing geopolitical and logistics risk.
- **Fast-ramp projects:** Bringing tons to market in years, not decades.
- **Qualified product:** Consistent specification and full traceability.
- **ESG compliance:** Low-carbon production that meets policy and buyer standards.

Geothermal has a structural advantage in this shift because it combines baseload brine flow with an existing operating footprint - supporting faster-to-qualify, regionally resilient supply.

## The Geothermal Opportunity - Dual Revenue From One Loop

Geothermal has a structural advantage in lithium because the hardest part of most mineral projects is already solved: the brine is produced continuously and managed through existing infrastructure. The opportunity is to add lithium extraction as an upside stream while keeping power/heat production as the primary focus.

### Lithium as upside - power/heat stays primary

- The geothermal plant remains a baseload generation asset.
- Lithium extraction is designed as a co-located revenue add-on, not a new core business that competes for attention, uptime, or staffing.

### Why "side stream" is the right mental model

- Lithium extraction is integrated as a side stream off the brine loop with defined interface boundaries (inlet, outlet/return, sampling, and bypass where needed).
- The goal is simple: Extract value without disrupting loop stability - especially reinjection requirements and operational continuity.

### What makes geothermal brine strategically advantaged

- **Baseload flow:** Predictable throughput supports stronger delivery credibility and economics.
- **Infrastructure leverage:** Tie-ins, utilities, and access already exist on an operating footprint.
- **Localized supply story:** Co-located production supports regional supply-chain positioning and traceability expectations.

If the brine chemistry and integration scope fit, geothermal can support a lithium revenue stream with minimal change to the operating model.

## How the Partnership Works: DBOO

The Design, Build, Own, Operate (DBOO) model is designed to make geothermal lithium practical. You provide the brine and site leverage; we provide the lithium asset and operating capability. Power/heat stays primary.

- **Low-friction entry:** No need to build a new lithium operating function.
- **Clear accountability:** One operator runs the lithium asset under DBOO within defined site interfaces.
- **Scenario-based risk:** Choose the risk/upside profile that fits your balance sheet and governance preference.

	Joint Venture	Royalty License
Overall benefits	A shared-ownership structure where we co-invest in a lithium plant at your site. You participate directly in project profits and position yourself as a pioneer in sustainable lithium and water management.	A service-style model where we invest in and own the lithium plant at your site. You earn royalties from your brine and strengthen your ESG profile through sustainable water and resource management.
Your contribution	Provide geothermal brine, site for co-location, reinjection well access or equivalent, and an agreed capital contribution at the project level.	Provide geothermal brine, site for co-location, reinjection well access, or equivalent - no capital contribution to the lithium plant in a standard set-up.
Lithium Harvest role	We design, build, and operate the plant using our patented lithium extraction solution. We manage lithium offtake and sales into the battery supply chain and share project returns with you as partners.	We design, build, own, and operate the lithium extraction plant using our engineered solution, and pay you agreed royalties linked to production from your brine.

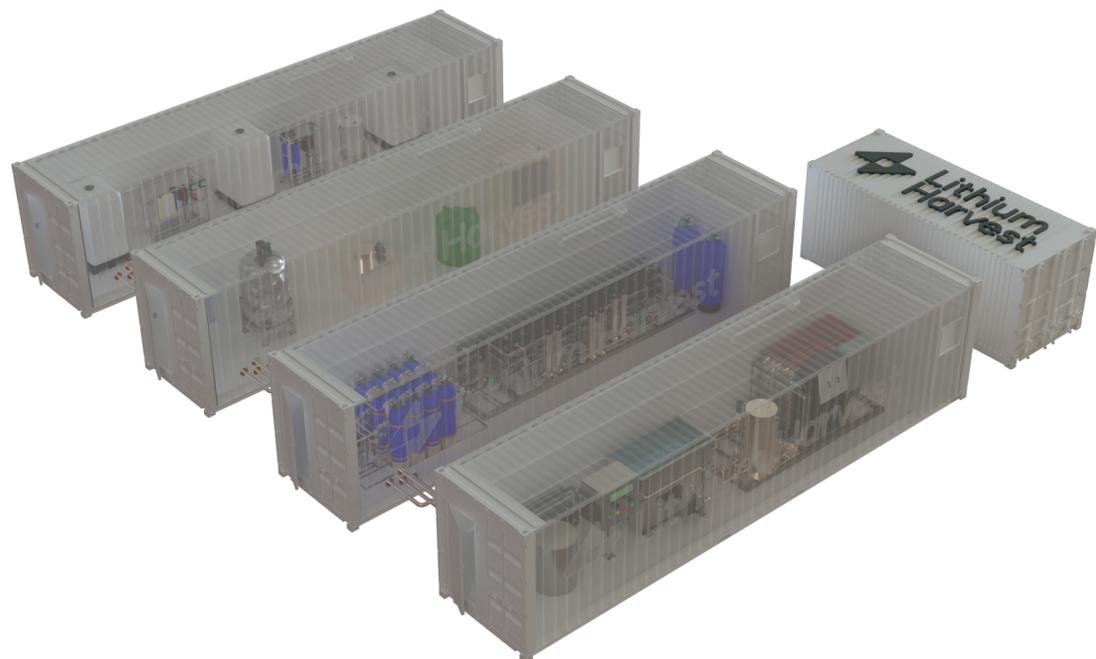
## From Brine Sample to Bankable Project

Validate on site. Model in the Digital Twin. Ready to scale.

The Lithium Harvest Mobile Site-Validation Unit (SVU) runs your specific brine on a scaled-down commercial train at your site. This generates decision-grade performance data.

Those results are fed into a digital twin to create a site-specific design basis and defensible economics. This process moves the project from “interesting” to an FID-ready package with clear decision gates.

- **Validated on your brine:** Our Site-Validation Unit (SVU) runs on your actual brine under real site conditions. We will prove recovery, product quality, and operating windows before you sign an agreement.
- **Modeled in our Digital Twin:** SVU results calibrate our Digital Twin, which converts your brine data into flowsheets, mass and energy balances, and unit economics. This gives you FID-grade insight in months, not years.
- **Performance-tied contracts:** Our economics are linked to plant performance and availability, not just the delivery of equipment. We win when the plant produces as promised.



## Business Case (Illustrative)



Geothermal brine	265 m <sup>3</sup> /h
Lithium concentration	125 ppm
Lithium price	\$14,175 (Consensus price 1-revenue year)
CapEx	\$26M
OpEx	\$3,647/t
Lithium production	1,200 tpa
Gross margin	74%
Revenue	\$17.1M
1-year result	\$12.7M
Payback period	2 years

### How Lithium Prices Impact Payback Time



### Economic feasibility - primary drivers

- Lithium concentration
- Water volume and flow continuity
- Infrastructure leverage
- Commercial structure
- Lithium price/offtake terms

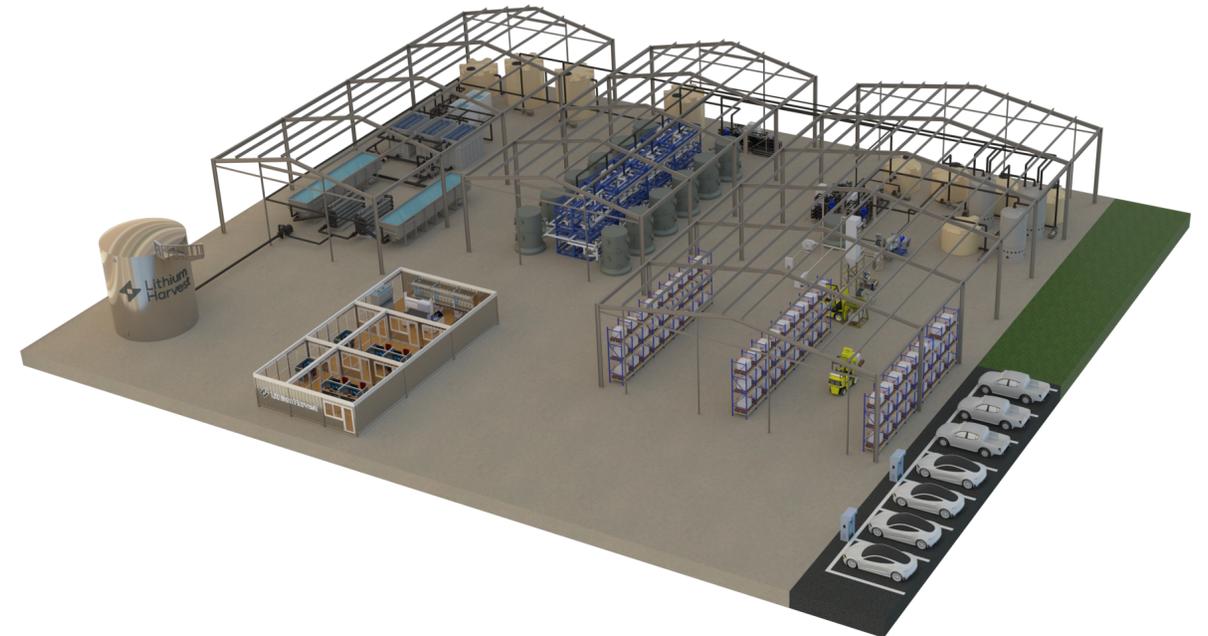
*Disclaimer: This example is illustrative to show the value logic. Actual outputs and economics are site-specific and must be confirmed through project-specific validation. Any pricing used in this business case is an illustrative assumption and is provided for modeling purposes only. The price assumption references the consensus price for the first revenue year as presented in the Lithium Harvest Investment Memorandum (2026). No representation or warranty is made regarding the accuracy, completeness, or future realization of any price, output, cost, or economic outcome.*

## Why Lithium Harvest?

- **Dual revenue from the same well:** Produce power/heat and lithium from the same brine loop - improve project economics without drilling new wells.
- **Engineered for variable geothermal brine:** Lithium extraction isn't a plug-in module - it's an integrated treatment-and-extraction system engineered to your chemistry and operating envelope.
- **Add value without adding operational complexity:** We run the lithium system as an integrated add-on under DBOO - you keep running your plant.
- **Fast path to first cash:** Modular units plus a clear proof step can move projects from idea to decision-grade execution on realistic timelines.
- **Aligned commercial model:** We earn when you earn. DBOO + revenue sharing creates a partnership model - not a fee-for-service vendor relationship.
- **Stronger stakeholder and offtake story:** Geothermal becomes both a renewable energy source and a critical minerals supply, supporting stakeholders, permitting narratives, and buyer requirements.
- **Proof of execution discipline:** 20+ years in industrial water treatment - 400+ large-scale systems designed and installed.
- **Scenario flexibility:** JV vs royalty structures let you choose the right risk/upside profile.

## What We Need to Assess Feasibility

- **Water composition data:** Full water analysis confirming lithium concentration, ionic composition, key impurities, and any available variability history.
- **Flow profile:** Typical flow, operating range, and stability over time.
- **Temperature and pressure:** Expected operating ranges (inlet temperature).
- **Reinjection context:** Reinjection constraints/specs and any known operating bottlenecks (high level).
- **Site context:** Preferred side stream tie-in point, footprint constraints, and available utilities.



## Let's Evaluate Your Geothermal Brine Opportunity

Turn geothermal brine into a decision-grade lithium revenue opportunity - without disrupting power/heat production and without building a lithium organization.



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# Let's Talk Lithium Extraction



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