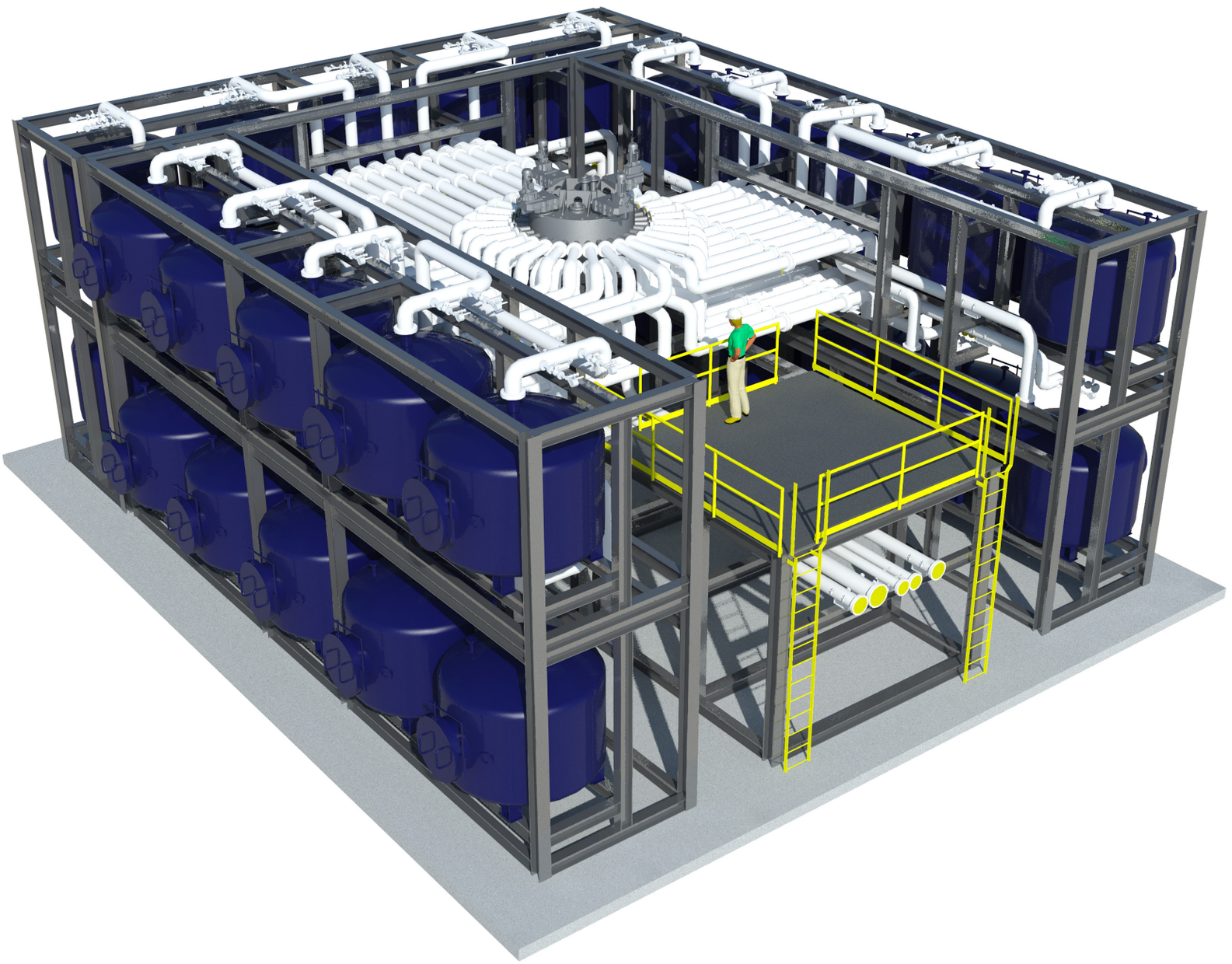
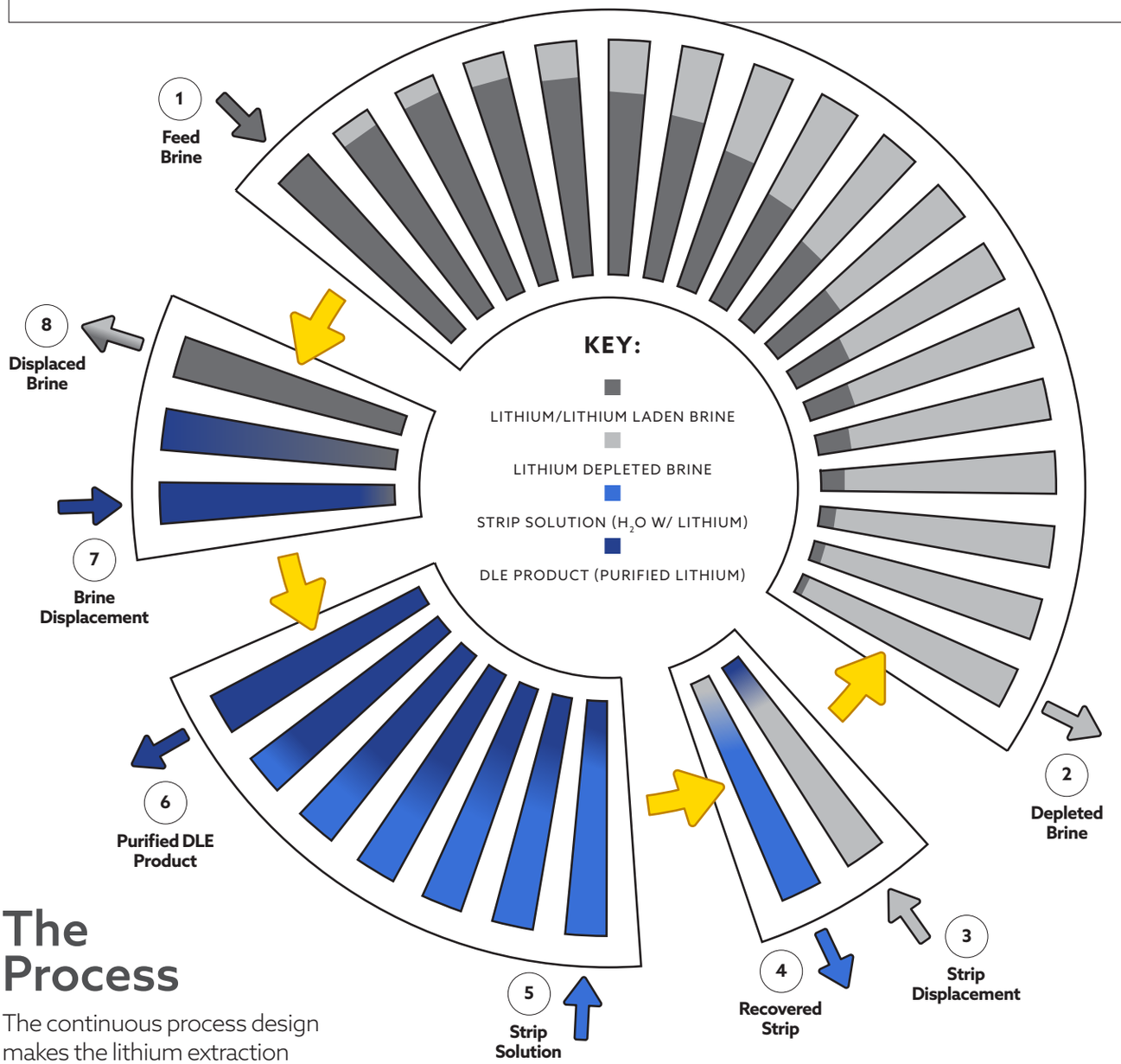


ILiAD TECHNOLOGIES

Industry's Best-in-Class
Direct Lithium
Extraction Technology

A GAME CHANGING,
PATENTED INNOVATION

Efficient. Flexible. Sustainable.



The Process

The continuous process design makes the lithium extraction process incredibly efficient.

1

Feed Brine

Lithium laden brine enters the extraction circuit for adsorption of lithium with our selective adsorbent.

2

Depleted Brine

Brine, depleted of lithium, leaves the circuit with no harmful reagents, resulting in minimal change to the original brine chemistry.

3

Strip Displacement

Depleted brine is utilized to recover strip solution within the circuit, ensuring that the returning column is devoid of lithium and precious water.

4

Recovered Strip

Clean strip solution is recovered within the circuit to maximize water recovery and minimize lithium losses.

5

Strip Solution

Strip solution (dilute lithium chloride) is utilized to desorb the lithium from ILiAD's selective adsorbent. The counter current direction optimizes lithium concentration and recovery.

6

Purified DLE Product

Purified DLE product, optimized for lithium concentration and minimized impurities, is sent downstream for further processing to make final products such as LiCl, Li_2CO_3 and LHM.

7

Brine Displacement

Purified DLE product is used to displace feed brine providing the highest quality product leaving the ILiAD system.

8

Displaced Brine

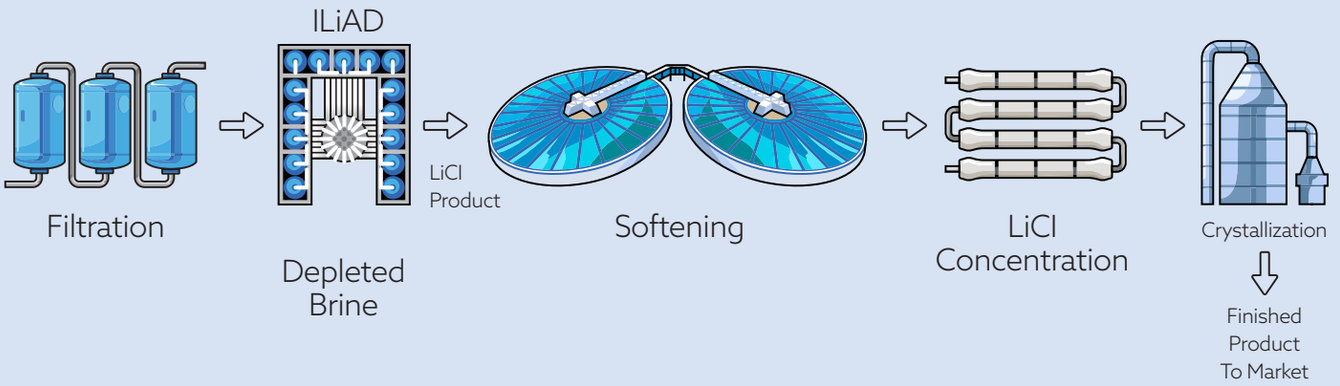
Displaced feed brine is temporarily removed from the circuit to prevent impurities in the product and recycled to minimize lithium losses.

A Game-Changing Innovation

Combining a lithium selective adsorbent media with a continuous counter-current adsorption desorption circuit significantly reduces the cost and simplifies the recovery of lithium.

The ILiAD Process Flow

Easily Intergrated Into Existing Process Operations



The Technology Benefits

Physical footprint savings (10x smaller compared to hard rock methods and 1000x smaller compared to conventional salar)[1]

Fresh water usage savings (up to 9x less fresh water usage than conventional salar and up to 3x less fresh water usage than hard rock methods)[1]

Viable with virtually all brine resources

Demonstrated adsorbent lifespan up to 6-years

Commercially ready. Proven equipment and design with commercial scale adsorbent production make ILiAD ready for implementation

No chemical reagents. Only water is required to strip lithium (no acid or caustic)

NOTE 1: Based on data from "Lithium Hydroxide Monohydrate Life Cycle Assessment Study" by Minviro LTD

Designed for easy installation and immediate operation

Reduced system complexity minimizes maintenance time and cost while increasing system availability.

Delivered as a fully assembled modularized system, providing easy installation and reducing total installed costs.

Combining conventional industry best practices with new technological advances results in a "first to market" DLE technology with proven performance.

Scalable, repeatable and designed to deliver on a wide range of production capacities with a "plug and play" approach.

ILiAD TECHNOLOGIES

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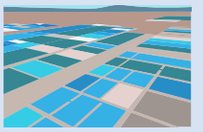
Works with Nearly Every Brine

A versatile design that can be utilized with resources around the world

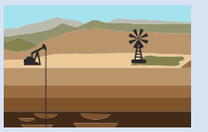


Salar Brines

Replacing conventional evaporation ponds with ILiAD reduces physical footprints by 1000x, lessens environmental impacts and eliminates lithium salt losses (40-50%) generated during the evaporative process.

Geothermal Brines

With effective pre-treatment, processing geothermal brines with ILiAD boasts high loading capacities and recoveries while taking advantage of excess brine temperatures. Feed impurities as high as 100,000 ppm can be effectively reduced to hundreds of ppm in the final product.



Produced Water Brines

After de-oiling, ILiAD can process lithium laden produced waters before re-injection, effectively turning a waste stream into a salable by-product. 90% recovery can be achieved with as low as 50 ppm lithium feed concentration.

Non-conventional Sources

Minimize lithium losses in down-stream processing by recycling lithium laden purge streams. Sources include mother liquor, battery production and other LiCl, Li_2CO_3 and LHM production purges.

Ground Water Sources

ILiAD achieves 90% or greater recovery rate of lithium from ground water sources with as little as 10% total dissolved solids.

Lithium Hard Rock Leachates

ILiAD can process acid-leached spodumene or lithium clay sources with 90% inlet lithium recovery and 99% impurity rejection with proper pre-treatment.

Versatility, Quality, Adaptability

Exceptionally pure lithium chloride product

High quality LiCl product with 99.9% or greater impurity rejection

Viable on heavily mineralized brines

Total dissolved solids from 10% to greater than 40%. Impurity levels of Na, K, Ca, Mg, B and others from 1,000 ppm to 100,000 ppm

Viable for brines with a diverse range of lithium concentrations

Feed lithium concentrations as low as 50 ppm to greater than 2000 ppm