



LITHIUM EXTRACTION & PROCESSING SOLUTIONS

Koch Engineered Solutions, LLC (KES) & Koch Minerals & Trading, LLC (KM&T) can deliver a unique, comprehensive lithium extraction solution that enables favorable returns with reliable outcomes. The ability to leverage a full suite of Koch capabilities including lithium extraction equipment, extraction process know-how, lump-sum turnkey Engineering, Procurement & Construction (EPC), lithium market offtake / trading and potential equity, creates a competitive advantage to deliver a world-class lithium extraction operating facility.



Direct Lithium Extraction Solution, Equipment and Aftermarket Support

- ▶ Koch Separation Solutions, a KES company, via proprietary Direct Lithium Extraction (DLE) process know-how and equipment, can globally test, pilot, implement and refine a DLE process from raw brine to concentrated lithium chloride for rapid commercial implementation.

Turnkey Facility Construction

- ▶ Optimized Process Designs LLC, a KES company, can offer lump sum turnkey Engineering, Procurement and Construction (EPC) for complete commercial-scale lithium extraction and crystallization facilities in North America with the ability to engage at early-stage front-end engineering all the way to complete project commissioning and startup.



Reagent Supply

- ▶ KM&T leverages its global procurement capabilities to assist in sourcing key reagents used in lithium extraction (e.g. caustic, soda ash, anhydrous ammonia, lime, hydrochloric acid, sulfur and sulfuric acid).

Offtake

- ▶ KM&T is an optimal marketer of finished lithium products that provides producers and consumers with market-based solutions globally.

Project Financing

- ▶ As a capital partner, KM&T leverages its trading, marketing, and logistics capabilities along with its global scale and flexible capital solutions to develop investments into profitable ventures and platforms.

Partner of Choice

GLOBAL SCALE

KES is an affiliate of Koch Industries, that has \$125+ bn in revenues, global presence and investment grade credit

DECISIVE ACTION

Unrivaled ability to marshal resources to move decisively and with certainty when the right opportunities present themselves

PRIVATE

KES' status as a private company and management philosophy allows partners to focus on capturing long-term opportunities

MUTUAL BENEFIT

True partnership mentality. Expectation that KES will work to make partnerships as successful as possible

KOCH LABS

Experts: Engage KES' internal subject matter experts to help better understand market and customer opportunities as well as solving technical challenges

Develop: Use KES and Koch-affiliate facilities and businesses as a test bed for product development and proof of concept, allowing for quicker time to market and product design cycles

Engage: Opportunity to engage KES and Koch affiliates as a partner, customer and supplier

Koch as a Favorable Project Partner

Optimize Full Project Scope with One Partner Solutions

DIRECT LITHIUM EXTRACTION SOLUTION, EQUIPMENT AND AFTERMARKET SUPPORT: KOCH SEPARATION SOLUTIONS (KSS)

- ▶ Pretreatment: PURON® MP
- ▶ Lithium Selective Sorption
- ▶ Lithium Brine Polishing/Ion Exchange Softening
- ▶ Lithium Brine Concentration: FLUID SYSTEMS® reverse osmosis

TURNKEY FACILITY CONSTRUCTION: OPTIMIZED PROCESS DESIGNS (OPD)

- ▶ “One-Stop Shop” lump sum turnkey EPC
- ▶ Demonstrated experience with up to 1,800 field employees supporting direct field construction
- ▶ 33,000 sq. ft. fabrication shop + 35,000 sq. ft. of warehouse in Katy, TX
- ▶ 40+ years of EPC experience, focused on small and large capital builds (~\$5mm - ~\$1bn+)

REAGENT SUPPLY: KM&T

- ▶ Market and handle over 12 million tons of dry bulk each year (including 1.5 million tons of sulfur) and several million tons of other bulk materials, serving customers in power generation, chemical, and industrial sectors.
- ▶ Team of 20+ terminal operations professionals and 60+ contractors across 5 bulk terminals.

OFFTAKE: KM&T

- ▶ Offer counterparties and market participants physical and paper commodities marketing and trading expertise through:
 - Price Risk Management - willingness to absorb price risk
 - Physical Optimization - capability to supply, offtake, transport and store commodities and materials globally
 - Liquidity - ability to make markets and provide liquidity in shallow markets
- ▶ Provide freight and logistics solutions via vessel, barge, rail, and truck on a global scale
- ▶ With over 550 global employees, KM&T has transacted with counterparties in more than 50 countries with a geographical reach extending to countries such as China, Australia, Brazil, Malaysia, and South Korea.

PROJECT FINANCING: KM&T

- ▶ KM&T has a track record as a value-added capital partner and project developer
- ▶ Koch Industries has deployed \$133+ billion in acquisitions and capital investments since 2003

KES LITHIUM EXTRACTION PROCESS ENABLED THROUGH KSS & OPD

