

Electrochemical Lithium Extraction

Our electrochemical technology enables economical lithium extraction from low-grade clay ores. It **reduces energy costs by 70%** compared to conventional methods, transforming lithium mining economics. This process offers a **sustainable solution** to meet growing lithium demand while minimizing environmental impact.

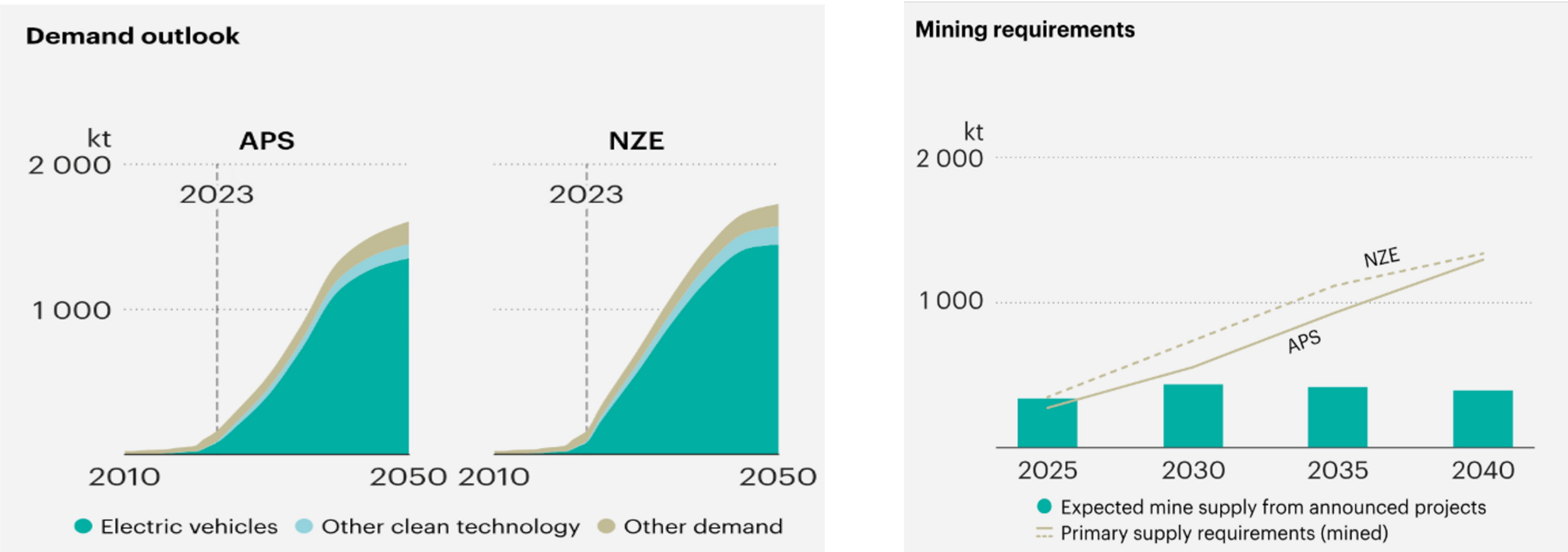
Team: Max Bertellotti (MBA’25), Isabella Bredwell (MEng’25), Megi Kavtaradze (MBA’25), Kaushik Kunal Singh (MS’25), Esther Tu (MBA’25), Ajmal Zanher (JD’25)
Advisor(s): Matt Rappaport, Kavisha Shroff

Pitch

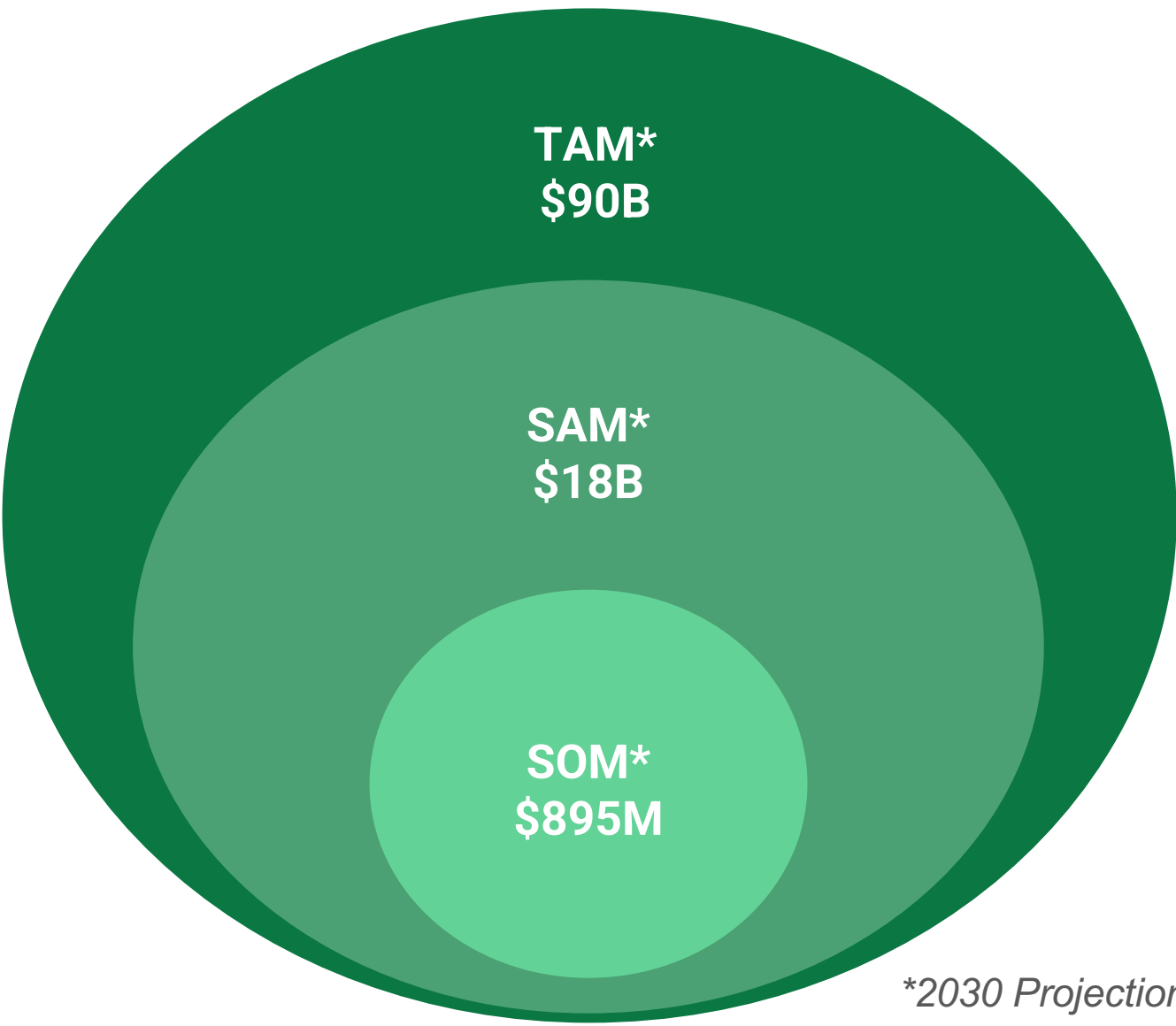
For lithium mining and processing companies:

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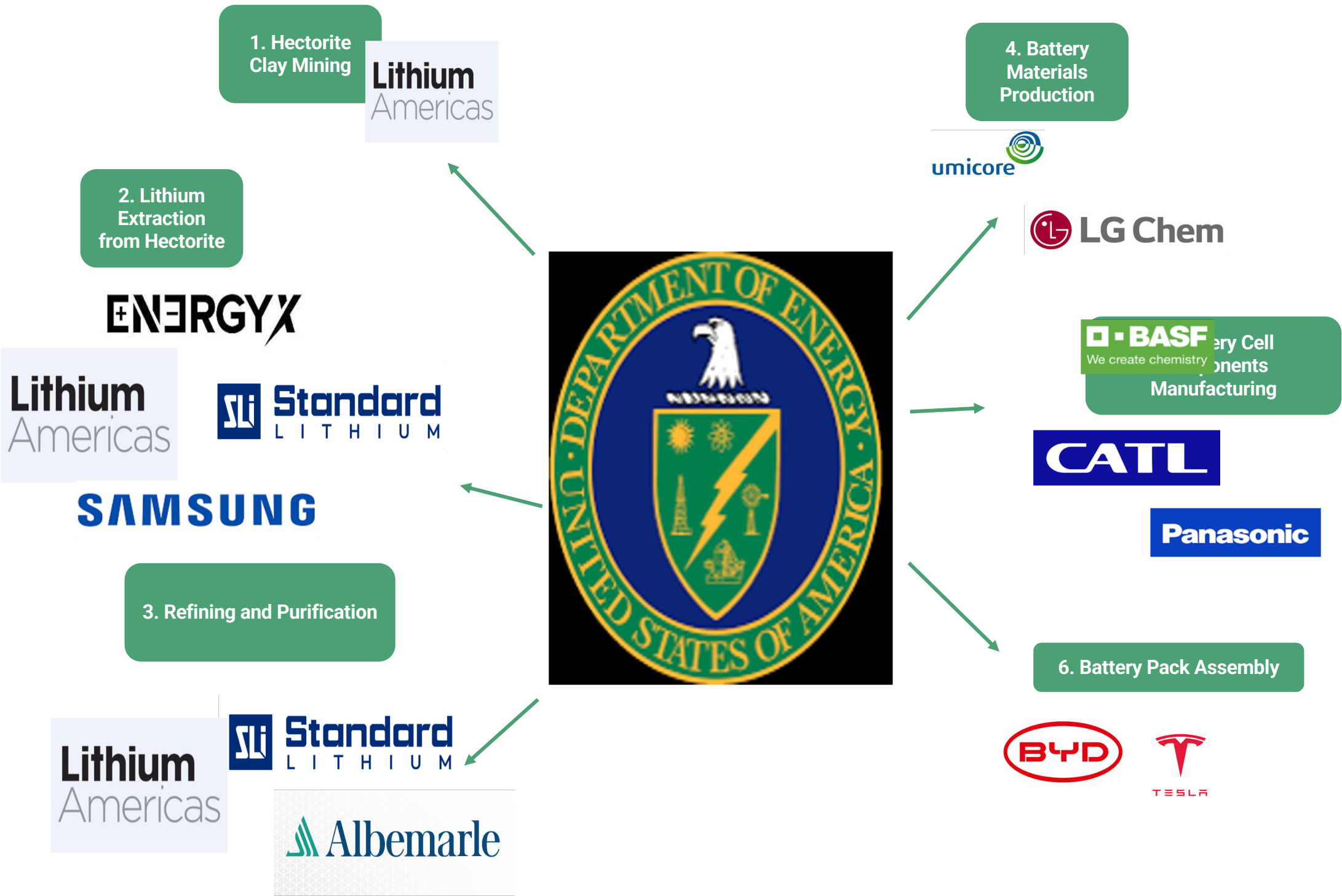
Demand



Market Size

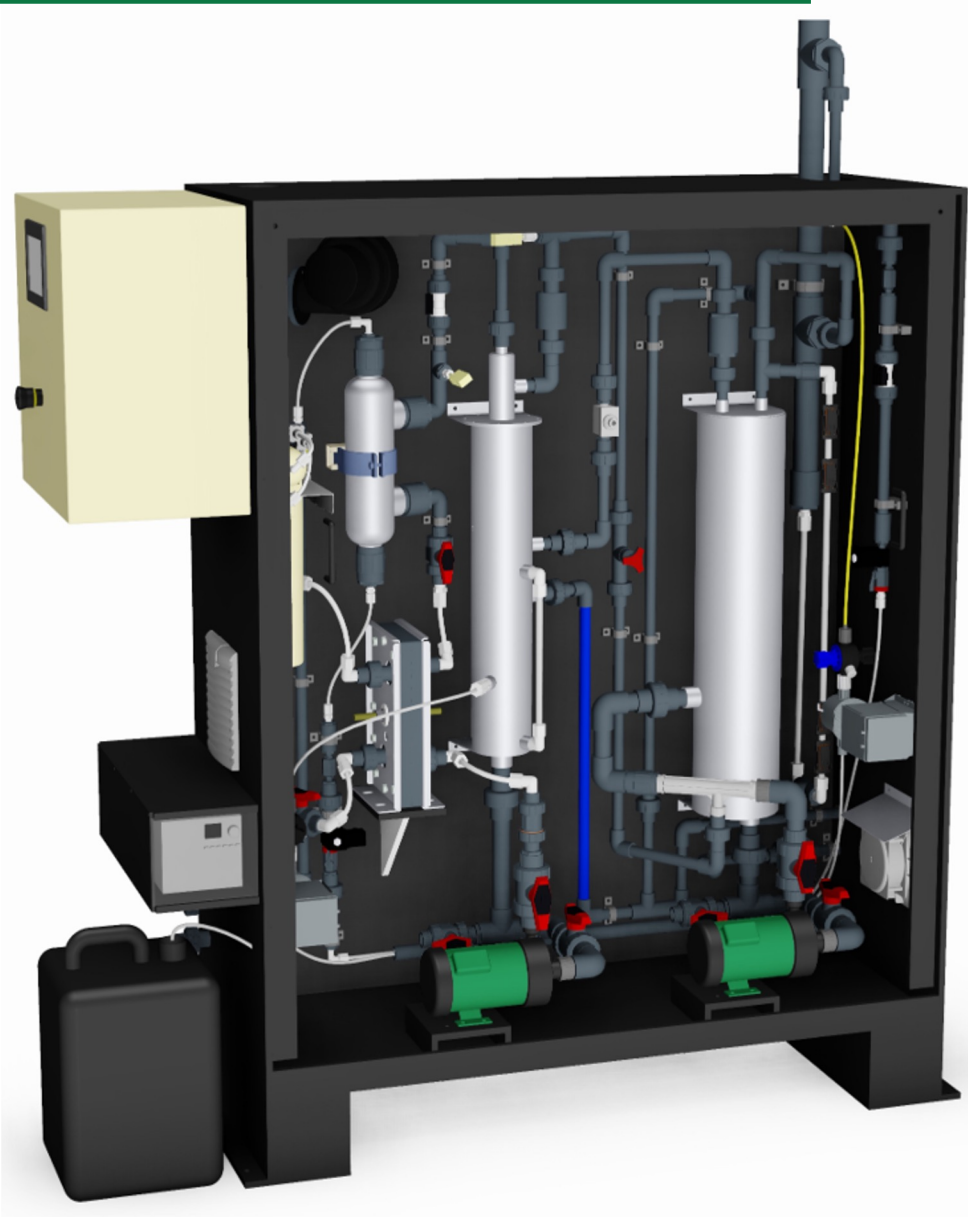


Value Chain



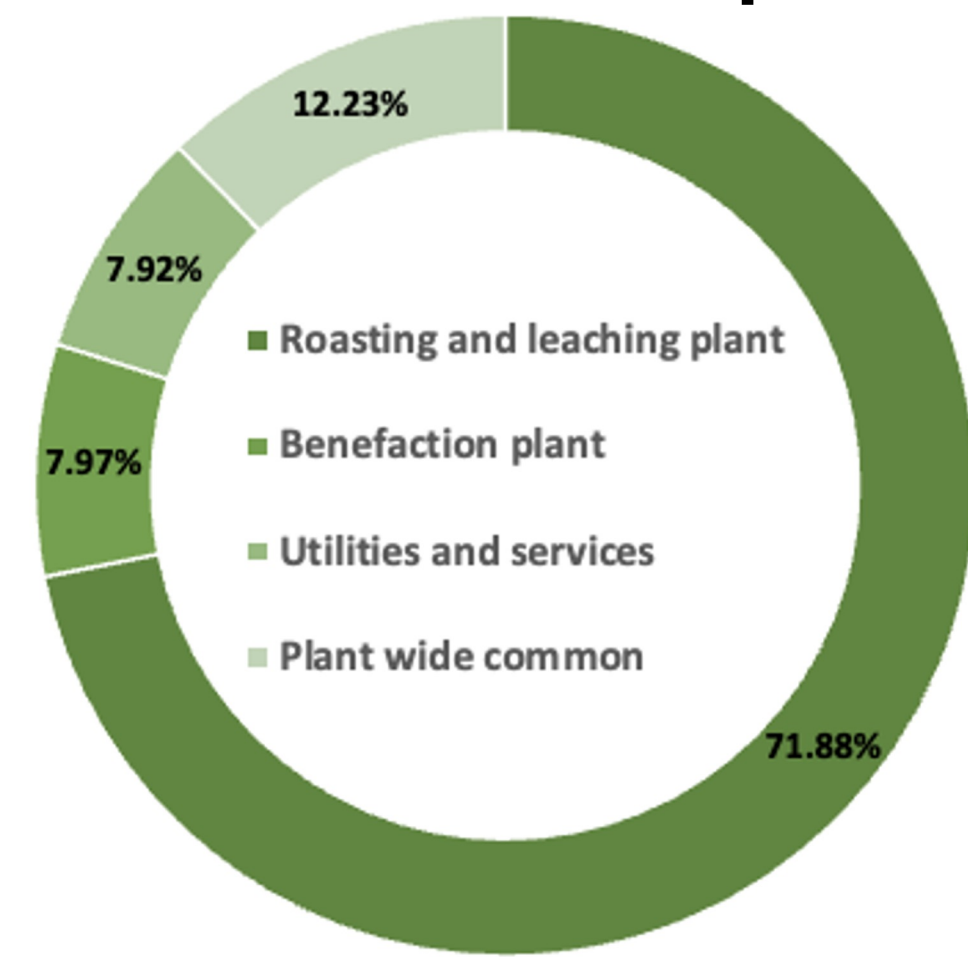
Seeking to resolve the **switching costs** and **integration costs** problem by creating a modular device:

Device Solution

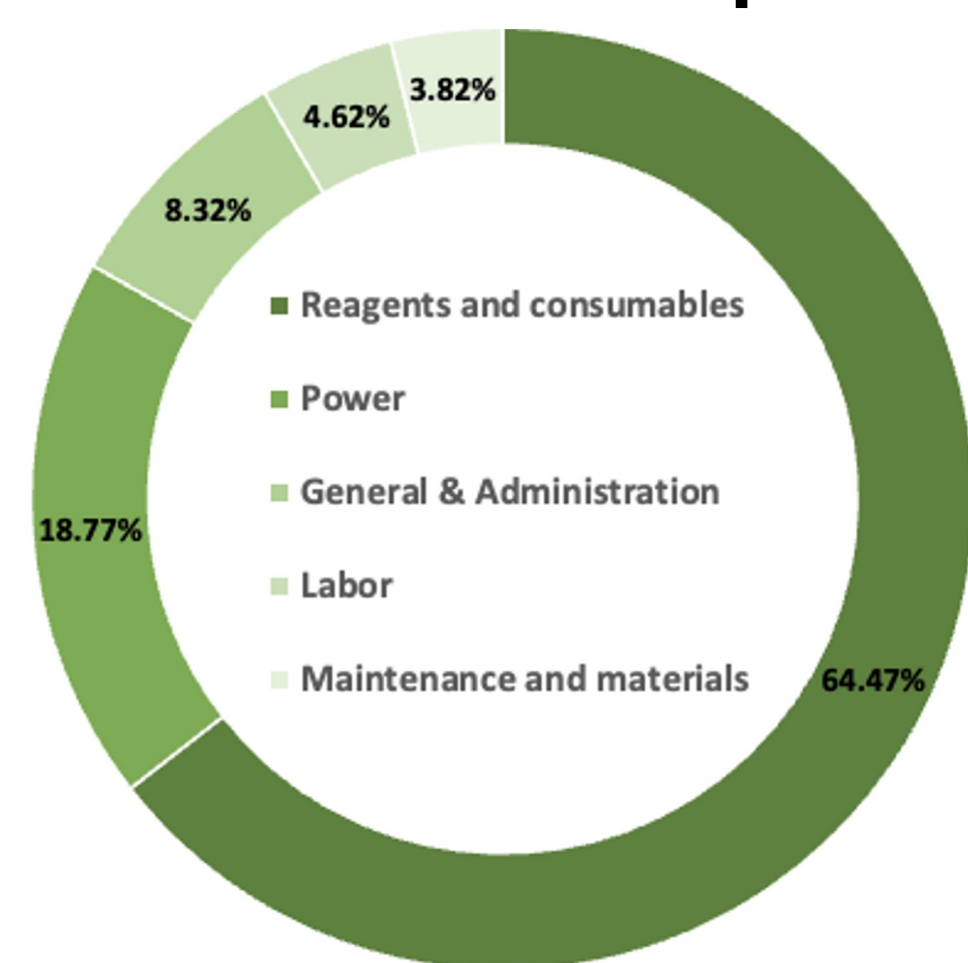


Cost Savings

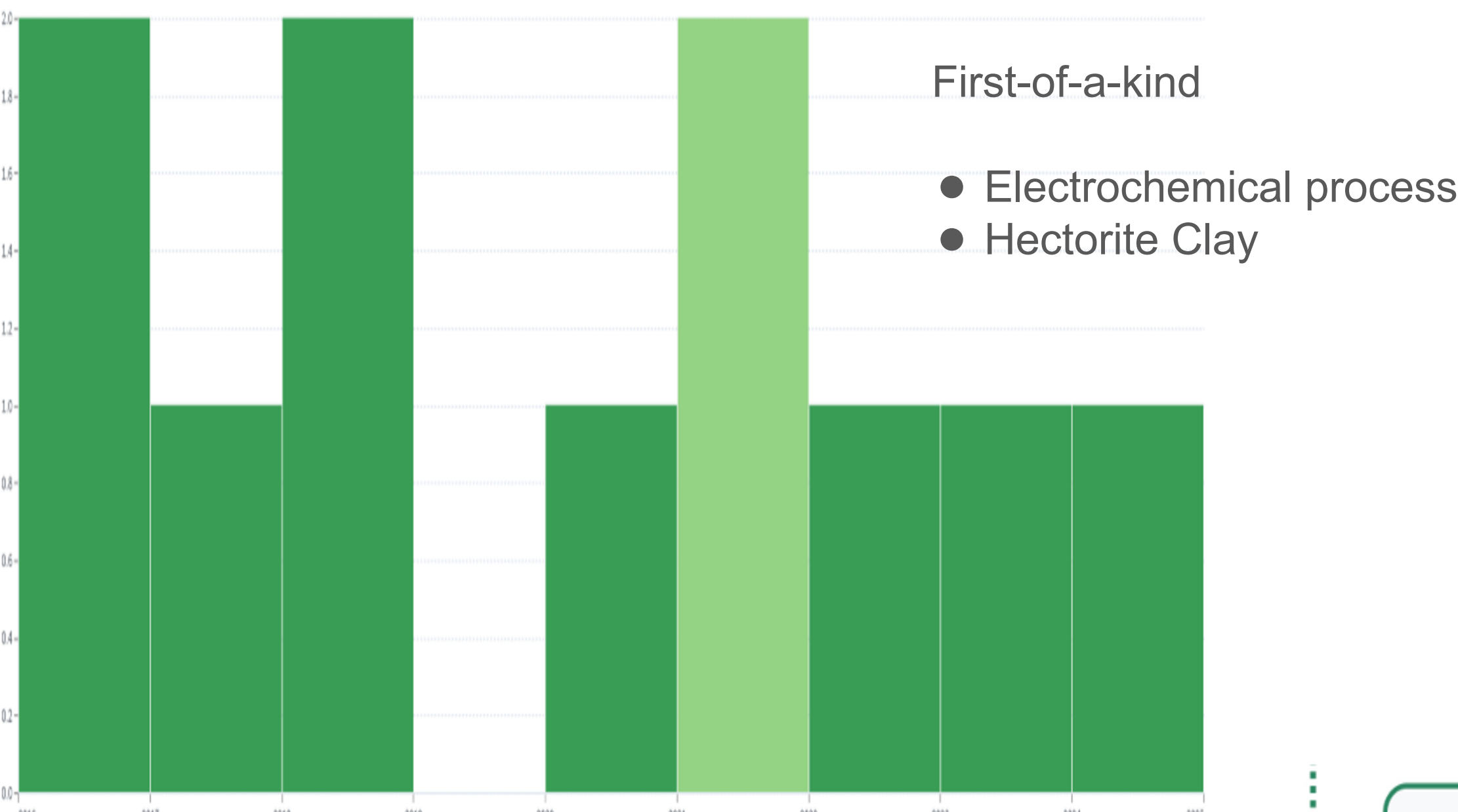
Extraction Plant Capex %



Extraction Plant Opex %



IP Control



Recommended Strategy:

DOE Funding Via VISION OPEN 2024

- 1

Step 1: Scope requirements for demonstration facility including research on waste product from hectorite
- 2

Step 2: Investigate pathways for FOAK funding with DOE via Advanced Materials and Manufacturing Technologies Office (AMMTO)
- 3

Step 3: Develop communications with Lithium Americas via Lithium Research, Development, and Demonstration (RD&D) Virtual Center

“If Lithium Americas isn’t on board, who is incentivized to partner for clays?” - Former Tesla Materials Executive