

CAUSTIC SODA

**MAADEN LOCALIZATION
OPPORTUNITY CARD**



CAUSTIC SODA

OPPORTUNITY SUMMARY

Case Summary

Established Industrial Demand

Caustic soda is a key input with limited substitutes across alumina refining, mining, chemicals, and water treatment, with demand generally linked to industrial output

Energy-Related Cost Considerations

Production economics are driven primarily by electricity, where competitive power pricing and industrial-scale infrastructure may support competitive unit costs

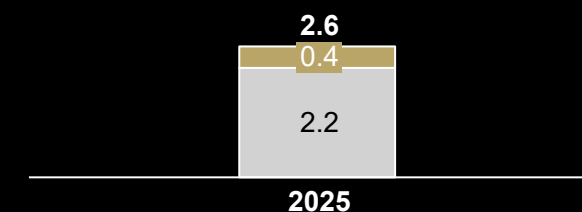
Potential Downstream Applications

A caustic soda asset may support multiple end markets and co-produce chlorine

Maaden & Market Demand

GCC demand, Mn t (2025)

■ Maaden Demand ■ Rest of GCC Demand



CAUSTIC SODA

LOCALIZATION OPPORTUNITY OVERVIEW

1

Established Industrial Demand

Caustic soda is a key input with limited substitutes across alumina refining, mining, chemicals, and water treatment, with demand generally linked to industrial activity and output

2

Large-Scale Consumption Base

Alumina refining is a major demand driver, with caustic soda consumption typically around ~85–90 kg per ton of alumina, supporting a steady demand profile

3

Import and Logistics Exposure

Despite regional production, parts of local demand remain exposed to imports and inter-regional logistics, which may increase working capital requirements and supply considerations

4

Energy-Related Cost Considerations

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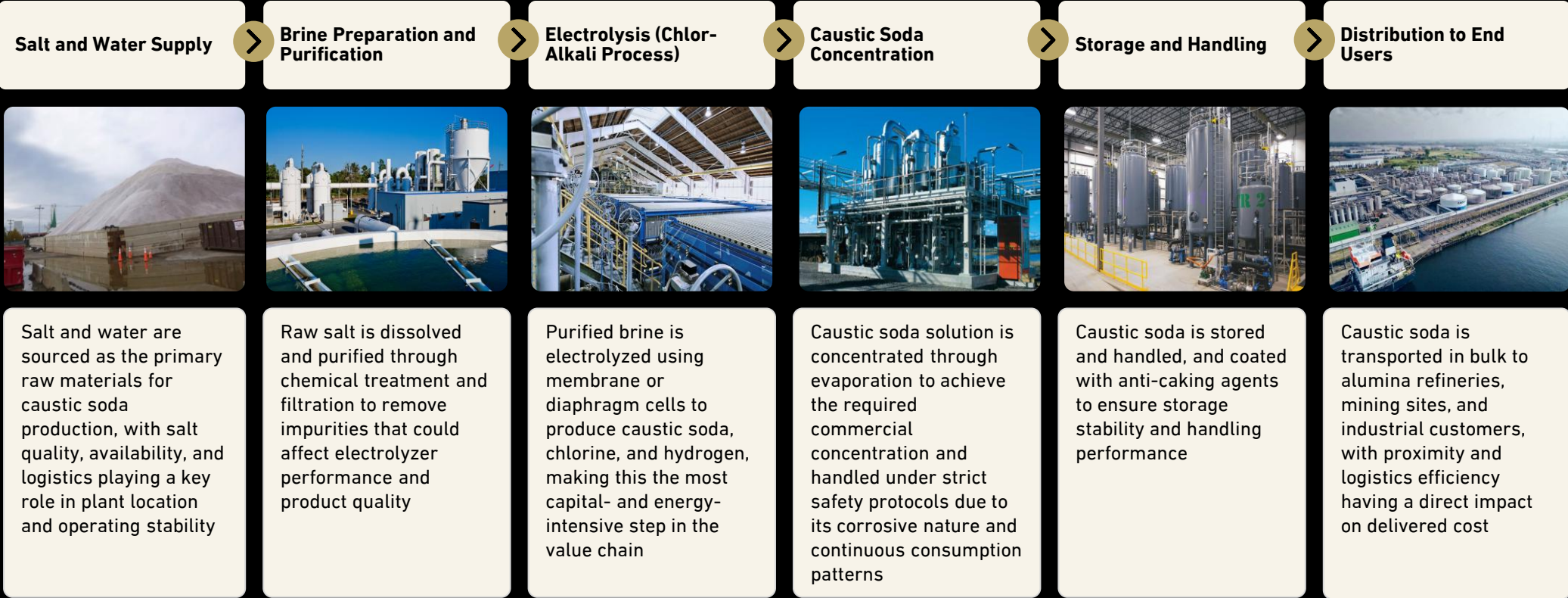
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Potential Downstream Applications

A caustic soda asset can support multiple end markets and co-produce chlorine, which may provide flexibility in product allocation

CAUSTIC SODA

VALUE CHAIN



Localization
Potential

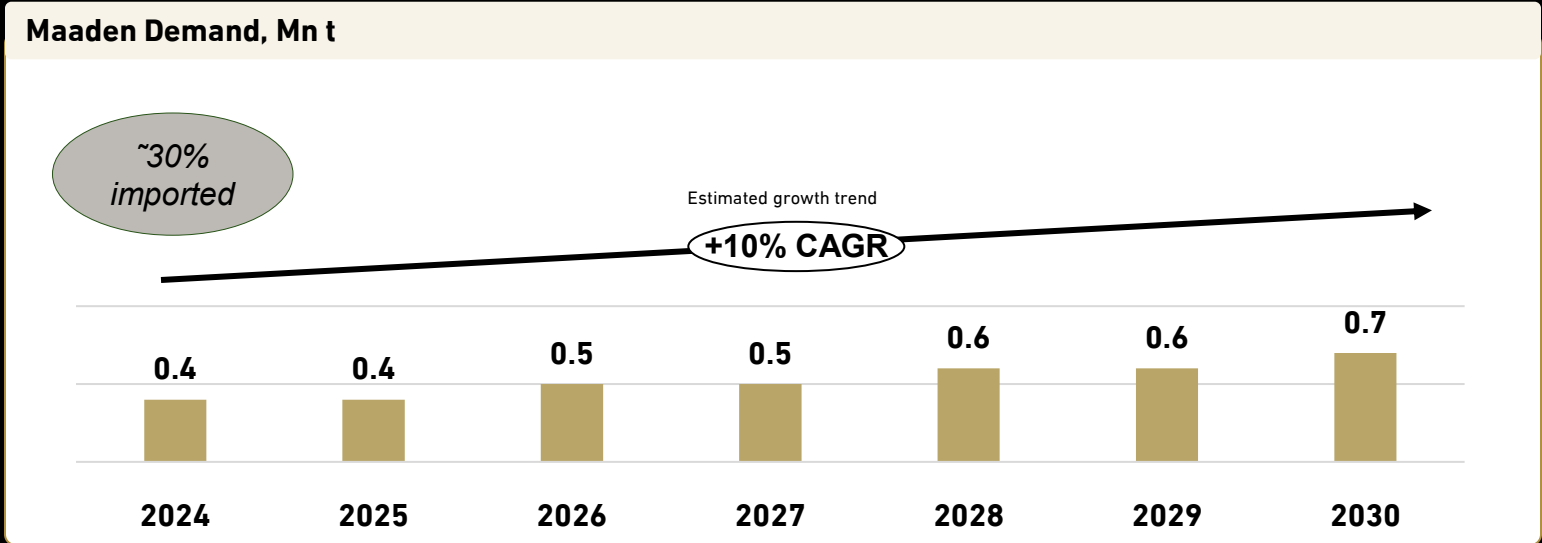
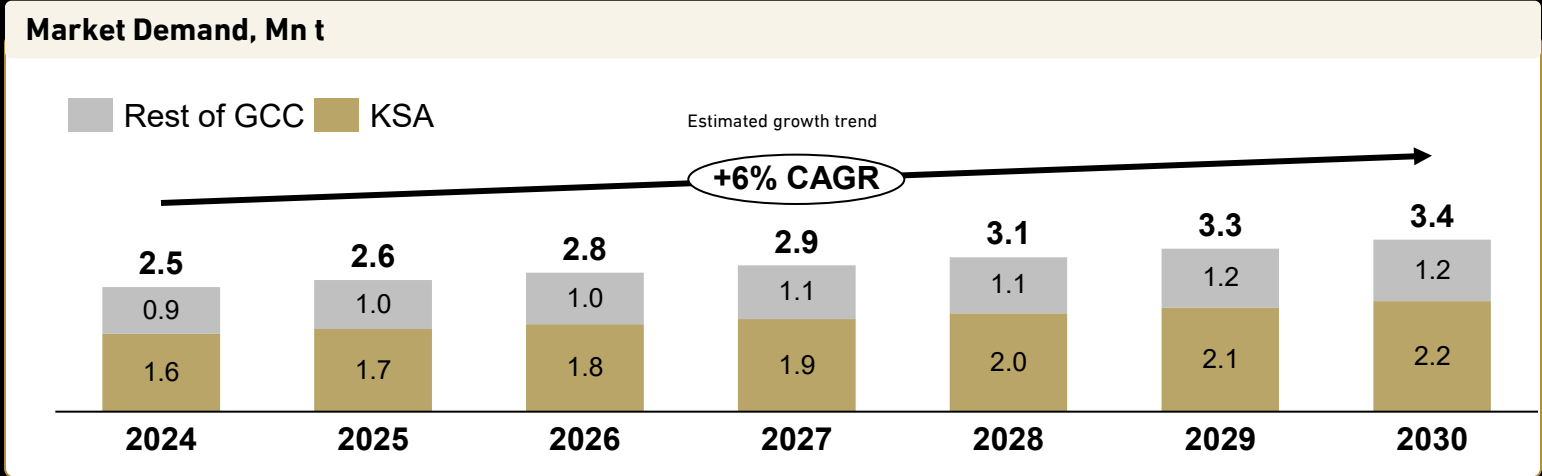


• Disclaimer: All figures are estimates compiled using historical consumption trends, the most recently publicly available information, industry benchmarks, and expert interviews. They are indicative only and remain subject to ongoing updates and change. **Source: Maaden, UN Comtrade, IMAC, Expert interviews**

• This material is for informational purposes only and does not constitute an offer or solicitation to invest.

CAUSTIC SODA

MARKET DEMAND & SUPPLY



Market Trends & Demand Drivers

- 1 Caustic soda prices are structurally volatile because supply additions are driven by chlorine economics rather than caustic demand, which may result in regional imbalances
- 2 The Middle East market is increasingly exposed to inter-regional trade flows, with pricing influenced by Asian and European operating rates rather than local demand
- 3 High freight costs and safety constraints mean caustic soda is rarely traded long distances, which may lead to regional price differentials
- 4 New capacity additions are capital-intensive and slow to come online, which limits short-term supply response and may support price recovery during demand upcycles

CAUSTIC SODA

The KSA ecosystem comprises six main categories, supported by key enablers

