



UNITED ARAB EMIRATES
MINISTRY OF INDUSTRY
& ADVANCED TECHNOLOGY

Industrial Investment Opportunities

A photograph of an industrial facility featuring four large, vertical, cylindrical stainless steel tanks. Each tank is connected to a network of pipes and a walkway system above them. The tanks are arranged in a row, and the scene is set against a clear blue sky. A semi-transparent white banner is overlaid across the middle of the image, containing the text 'Caustic Soda Production'.

Caustic Soda Production

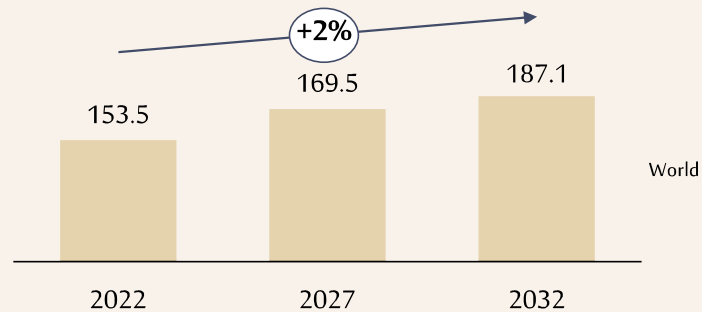
Caustic Soda Production

Caustic soda production plant involves the processing of salt (brine) feedstock through electrolysis, with both Hydrogen and Chlorine gases produced as by-products

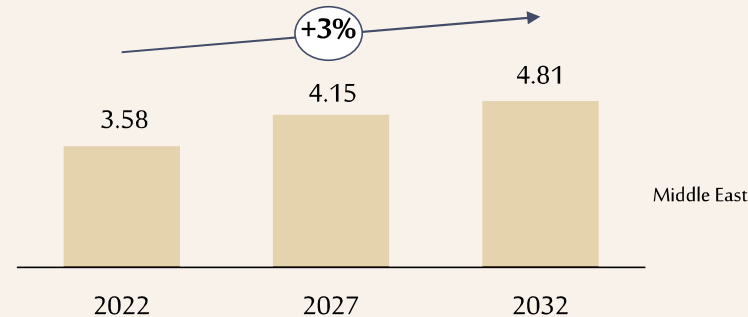
Investment case

- Setup a large-scale Caustic Soda Production facility in the UAE
- Investment size = AED 654 Mn
- Plant capacity = 135,000T per year
- Expected IRR = 10.6%
- Expected NPV = AED 62.4 Mn

Global Market Size 2022 – 2032 (Bn AED)



Regional Market Size 2022 – 2032 (Bn AED)

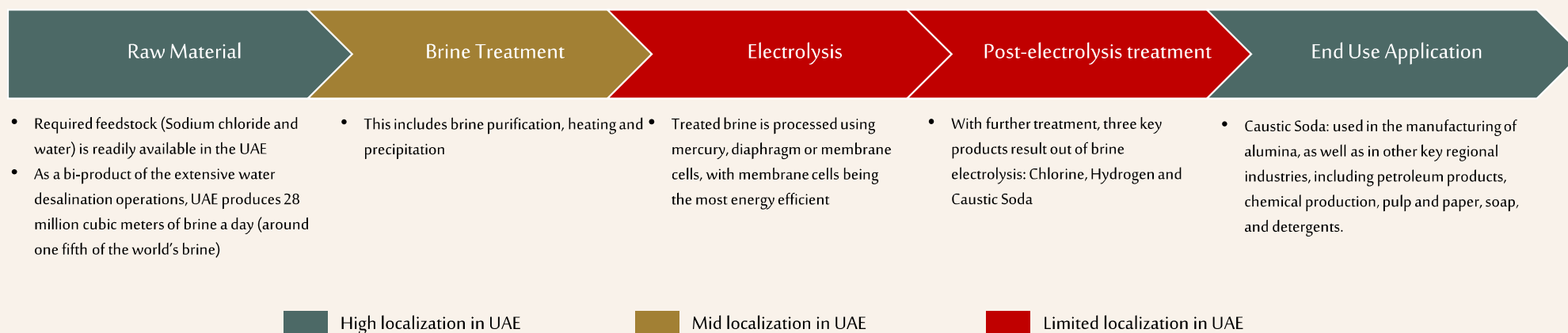


Global trends & demand drivers

- The demand for caustic soda has increased for soap and detergent production as a result of COVID-19
- Southeast Asia, South America and North America are the leading import destinations and are expected to increase their imports by 1.3% during 2022-2025
- Increased demand for packaged foods and rise in substitution of stainless steel with aluminum by automotive manufacturers are further growing demand for caustic soda (to be used for alumina production)
- The move towards circular economy will drive the demand for caustic soda as it is also used in the de-inking of recycled paper waste
- The expansion of alumina refineries and chemical production facilities in the region is driving the increase in demand for Caustic Soda as well as the raw materials needed to produce it.

Caustic Soda Production

Value Chain Analysis



Value proposition

- Access to major local offtake agreement with EGA; a key pre-investment milestone
- Wide availability of needed raw material (Salt/Brine) locally within the UAE
- UAE is the fastest growing market and second largest for Caustic Soda in the region
- Potential exports to major net importing regional markets (e.g. Europe), through utilizing UAE's capabilities as a global logistics hub
- Contributing to improving overall sustainability of local water desalination operations via brine purification and processing

Enabling Entities

- **KIZAD:** The facility can be established near the Al Taweelah Alumina (ATA) Refinery, lowering the transportation and distribution costs of caustic soda (through pipelines) and reducing operating cost while providing broad market accessibility (linked to Khalifa Port)
- **Khalifa Port:** Facilitates companies exporting revenue stream and helps position it as a regional and international player
- **EDB:** Competitive debt pricing will help lower WACC and in return improve Internal Rate of Return and pay back period
- **MoIAT:** Encourages and promotes projects and initiatives related to local production