

EXPORT AND INVESTMENT PROMOTION AGENCY OF THE REPUBLIC OF AZERBAIJAN

# INVESTMENT PROJECTS IN AZERBAIJAN

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## **CAUSTIC SODA PRODUCTION PROJECT**

project owner: Nobel Energy

## **PROJECT DEFINITION**

Nobel Energy plans to construct a caustic soda production plant in Azerbaijan, Sumgayit Chemical Industrial Park with an annual caustic soda (NaOH, 50%) production capacity of 20 thousand tons.

Annual production and product types are as follows:

| NaOH  | 20 thousand tons | Caustic Soda        |
|-------|------------------|---------------------|
| CaCl2 | 10 thousand tons | Calcium chloride    |
| HCI   | 5 thousand tons  | Hydrochloric acid   |
| NaCIO | 3 thousand tons  | Sodium hypochlorite |
| Cl    | 1 thousand tons  | Liquid Chlorine     |



### Project owner: Nobel Energy

Nobel Oil LTD or Nobel Energy is a company operating in Azerbaijan, since 2005 in oil and gas service sector.

Nobel Energy is a provider of integrated services to the oil and gas industry in the Caspian region. Nobel Energy was originally established in 2005, later its corporate structure was re-organized to replace the Azerbaijan-based business under a parent company (Nobel Energy Services (UK) Limited) with its headquarters in London.

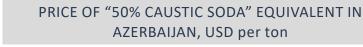
Along with strong local presence, Nobel Energy has a strong management team dedicated to the project. The project covers demand for caustic soda (50%) in Azerbaijan, which increased to 20.3 thsd tons in 2021.

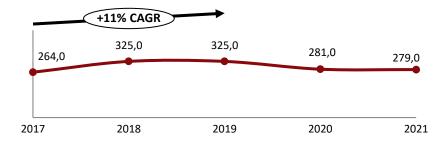
### MARKET INSIGHTS

Azerbaijan's local demand for caustic soda (50% concentration) is fully covered via imports. Average demand was 17.7 to 21.5 thsd tons over last 5 years with 2020 being low due to COVID lockdown implications.



IMPORT OF "50% CAUSTIC SODA" EQUIVALENT IN





#### COMMENTS

- There is no production of "caustic soda 50%" in Azerbaijan since 2013. Domestic consumption has been satisfied via imports from the neighboring countries in last 10 years
- Import volume of "caustic soda 50%" decreased by an average 9% during 2017-2019 partially due to an average 11% annual increase in their prices
- In 2020 Covid restrictions decreased imports by 31%. Consumers could switch to cheaper alternatives. For example: lime
- 2021 increase was covered by doubling imports from Russia

#### PRODUCTION OF "50% CAUSTIC SODA" IN AZERBAIJAN, tons

|                                  | 2010  | 2011   | 2012 | 2013 |   | 2021 |
|----------------------------------|-------|--------|------|------|---|------|
| Production of caustic soda, tons | 7 105 | 13 188 | 254  | 0    | 0 | 0    |

#### **Caustic Soda Production Project**

## PROJECT LOCATION, PRODUCTS AND THEIR DESTINATION

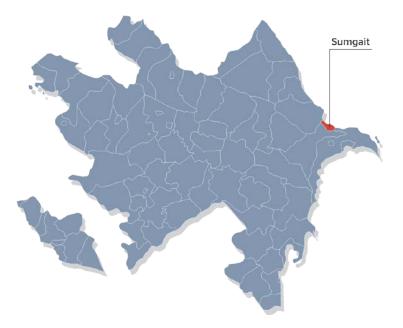
### LOCATION

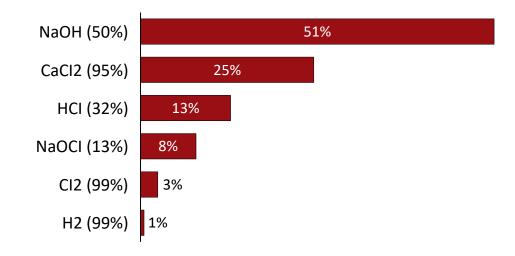
#### PARTICIPATION IN TOTAL PRODUCTION CAPACITY

#### SUMGAIT INDUSTRIAL CHEMICAL PARK

The construction of the plant is projected in Sumgait Chemical Industrial Park, which provides tax and other incentives, as well as close access to raw materials and utilities.

Required land area is 7.5 hectares.





#### PRODUCTION OF "50% CAUSTIC SODA" IN AZERBAIJAN, tons

| Product | Azerbaijan | Export |
|---------|------------|--------|
| NaOH    | 100%       | 0%     |
| CaCl2   | 50%        | 50%    |
| Other   | 100%       | 0%     |

#### **Caustic Soda Production Project**

**GLOBAL** FORECAST

Global demand outlook for caustic soda is positive. CAGR for upcoming years is at the level of 6%.

NaOH caustic soda

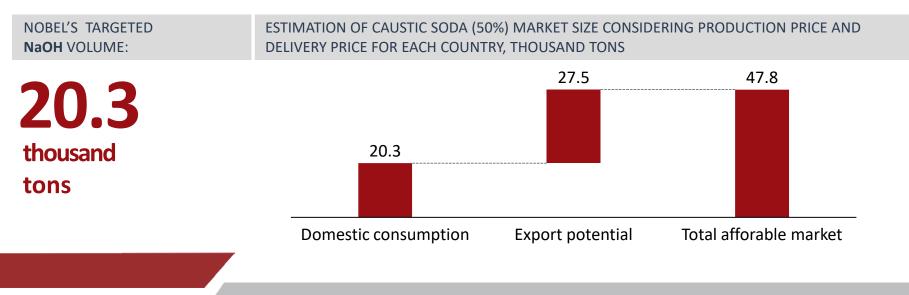
Nobel plans to capture 100% of the Azerbaijani 20.3 thousand ton market by offering prices of and quality competitive to foreign imports.



Load demand is sufficient to cover Nobel's volumes for most products excluding CaCl2 (95%), so Nobel will export remaining production volumes to Turkey, Russia, Kazakhstan, or Georgia

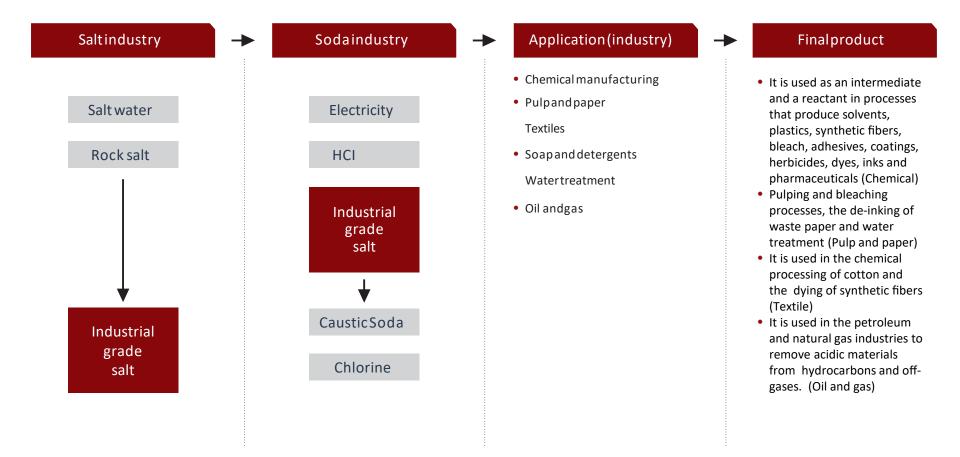
Plant would be capable to export additional NaOH production to Kazakhstan, Russia, and Germany.

The available market size in those countries is 736 thousand, out of which Nobel can be compete in 47.8 thousand tons, due to prices it can offer.



The main raw materials of caustic soda (50%) are salt, electricity and hydrogen chloride.

The project anticipates to employ the membrane cell technology, which is considered the best in class and most efficient technology to date. The alternative Mercury based technology is far less efficient and creates serious HSE concerns.



## INVESTMENT SUMMARY

#### CURRENT STATUS

- Third party feasibility study finalized by PWC; Plant estimated completion is 2025;
- Fully priced tenders for E&P available;
- In house construction estimation complete; Location determined;
- Preliminary financing negotiations carried out.

#### Utilization = 100% 50 25% 40 Utilization = 50% 30 13% 8% 20 Construction period 51% 10 2028 2029 2030 2031 2042 2043 2045 2023 2024 2025 2026 2027 Hydrochloric acid Sodium hydroxide Sodium hypochlorite Calcium Chloride Hydrogen Liquid Chlorine

#### CAPEX, USD mln

#### FINANCIALS

| Investment           | 32,000,000 USD               |  |
|----------------------|------------------------------|--|
| Financing            | 70/30 debt-to-equity ratio   |  |
| Equity IRR           | ~20%                         |  |
| Payback period       | 8 years (incl. construction) |  |
| NPV                  | positive                     |  |
| Permanent employment | Up to 100 people             |  |

|              | 2023 | 2024 |
|--------------|------|------|
| Engineering  | 1.5  | 1.7  |
| Procurement  | 8.4  | 9.2  |
| Construction | 4.6  | 5    |
| Commission   | 0.8  | 0.8  |
| Total CAPEX  | 15.4 | 16.6 |

Initial CAPEX

#### PARTICIPATION IN TOTAL PRODUCTION CAPACITY