



Sodium Chlorate Plant Brandon, Manitoba

Don Boonstra
Chemtrade
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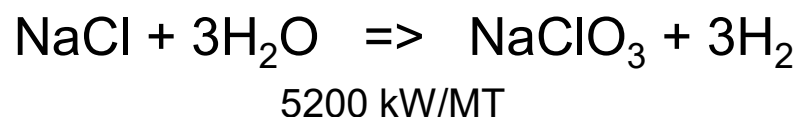
- **2018 Sales:** \$1.6 Billion
- **Domicile:** Canada
- **TSX:** CHE.UN
- **Employees:** 1,400
- **Facilities:** +60 in North America, 1 in Brazil
- **Brandon:** Largest Sodium Chlorate plant in the world
320,000 tonnes per year
100% of product exported out of province

Sodium Chlorate



- **Customers:** **Pulp and Paper**
- **Use:** **Bleaching of wood pulp**
- **Requirement:** **Lowest delivered costs**
- **How:** **1) Raw materials**
 - Electricity and Salt**2) Economies of scale**
 - Large investments, long term thinking
 - Difficult geography and weather**3) Transportation**
 - 100% of product exported out of province
 - 75% of product to US

- **Reaction:**



- **Electricity consumed**

- 223 MVa / year (~5% of the provincial load)
- ~\$70,000,000 / year
- 70% of raw material variable cost

- **Rate increase impact**

- 1% rate increase: >\$700,000/year cost increase
- 10% decrease in production volume → \$7,000,000 reduction in Hydro Revenue

Brandon – Sodium Chlorate *Celebrated 50 years in 2018*



- **\$135 Million:** Total direct economic benefit of Chemtrade's Brandon plant in 2018.
 - **67%:** Portion of Chemtrade's direct economic benefit that remains in Manitoba.
- **\$90 Million:** Increased planned capital expenditures would provide an additional economic benefit. Over the next five years.
- **\$2.7 million:** Municipal and Provincial taxes paid by Chemtrade in 2017.
- **\$10.1 million:** 2018 Payroll
 - **\$139,000:** Average 2018 salary of Chemtrade's workforce compared \$84,000 median Manitoba family income in 2016.
 - **7th largest** Employer in Brandon.

Competition is not resting



- Quebec has announced a 0.0% increase effective April 2020.
- BC Hydro has proposed a 1.0% decrease effective April 2020.
- IHS Global Bleaching Report indicates Cash Costs to produce chlorate in US producing locations has declined >8% in the past 24 months due to decline in electricity costs (*IHS Global Bleaching Report, Nov. 2019*)
- Chlorate producers announced the following shutdown & capacity addition decisions in 2018 - 2019:
 - Nouryon/Eka permanently shut 118KMT of capacity in Valleyfield, QC in Q1, 2018
 - Erco permanently shut 40KMT of capacity in Saskatoon, SK effective Q3, 2019
 - Kemira expanding plant in Eastover, SC by 18KMT effective Q1, 2020 for \$20M
 - Erco expanding plant in Buckingham, QC by 5KMT effective Q4, 2020 & expanding plant in Valdosta, GA by 11KMT effective 2021 for a combined \$27M

Position on Efficiency Manitoba



- **Competitive, stable & predictable rates are important**
 - Our industry is Energy Intensive & Trade Exposed.
 - Our historical advantages of competitive electricity and scale are being eroded.
- **Industry is an important component of the savings objective**
 - Per MIPUG response PUB/MIPUG-8b, Industry is planned to contribute >50% of the incentive based electric savings in the initial 3 years.
 - With an average budget allocation of 20%, Industry opportunities are expected to represent the lowest acquisition cost
- **Our objective is that we participate and that our net cost is neutral**
 - Efficiency Manitoba should target opportunities that balance the greatest impact with the lowest acquisition cost – Efficient.
 - Selected projects should be economically justifiable.
 - Our barrier is like others in Industry, our capital to invest is constrained and competitive.

Summary



- **The world is changing fast.**
- **Competitive advantage of Manitoba/Canada for energy intensive industry is eroding.**
- **It is important to maintain competitive, predictable & stable rates.**
- **Selected projects should be those that are most efficient and economically justified.**
- **Industry is a key partner – recognize that capital to invest is competitive.**