

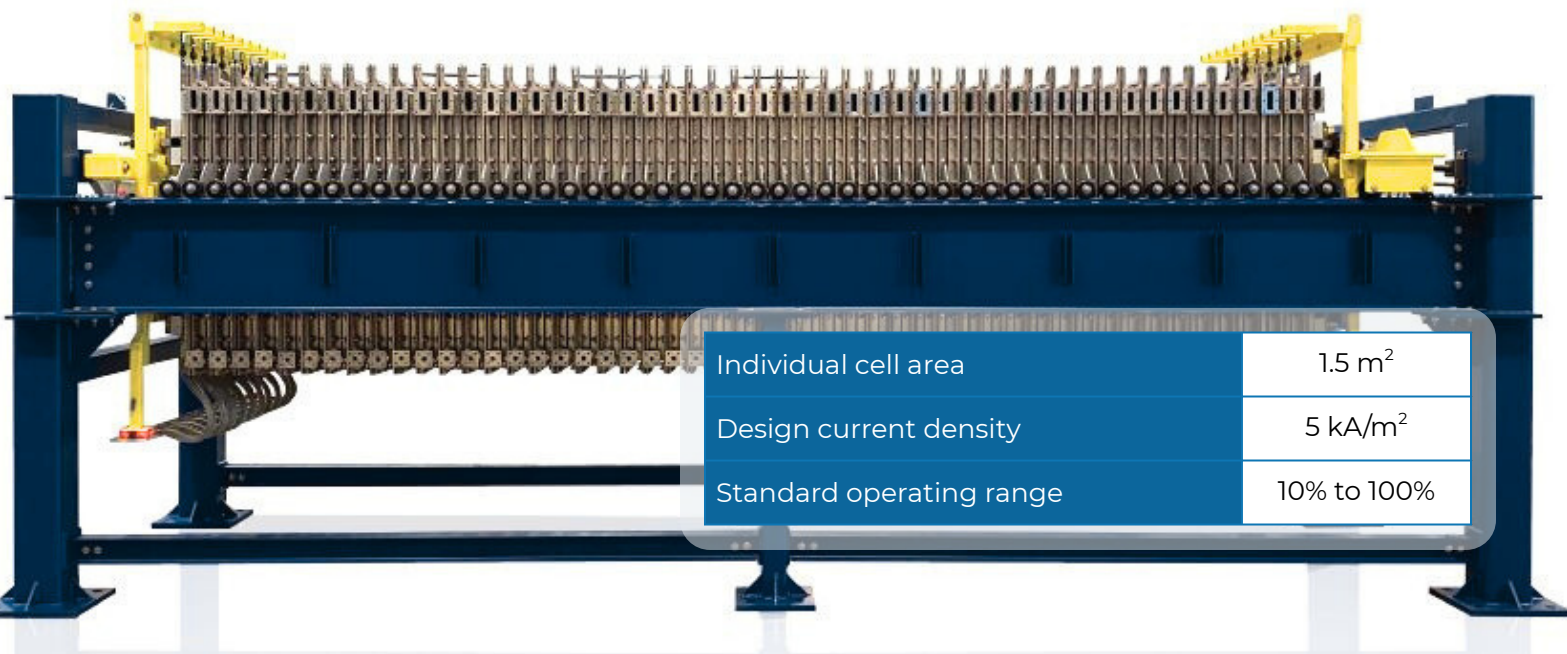


nesi

NORSCAND® A15 COMMERCIAL ELECTROLYSER

FOR LITHIUM CHLORIDE ELECTROLYSIS

NORSCAND® A15

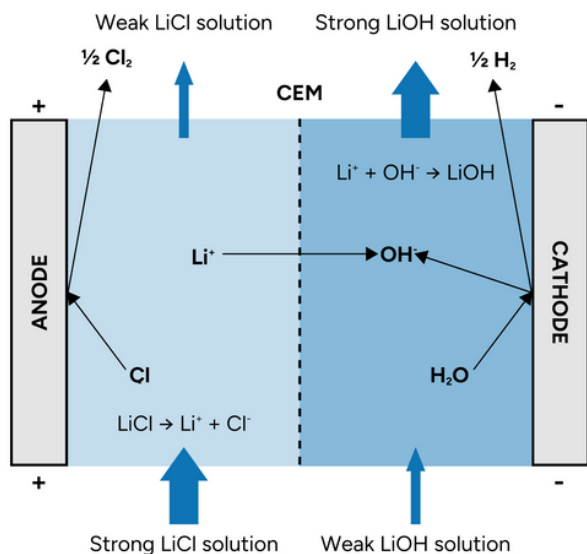


NORSCAND® is a registered trademark in the Canadian Intellectual Property Office and the United States Patent and Trademark Office.

Where Innovation Meets Sustainable Lithium Production

How it works

The NORSCAND® Electrolyser employs advanced membrane electrolysis to convert an aqueous lithium chloride solution to a high-purity lithium hydroxide (LiOH) solution that exceeds the rigorous standards of lithium-ion battery manufacturers.



LiCl Electrolysis Schematic

In this method, an aqueous solution of LiCl is electrolyzed in a cell divided by an ion-exchange membrane. Lithium ions migrate from the anode compartment to the cathode compartment and combine with hydroxide to form lithium hydroxide.

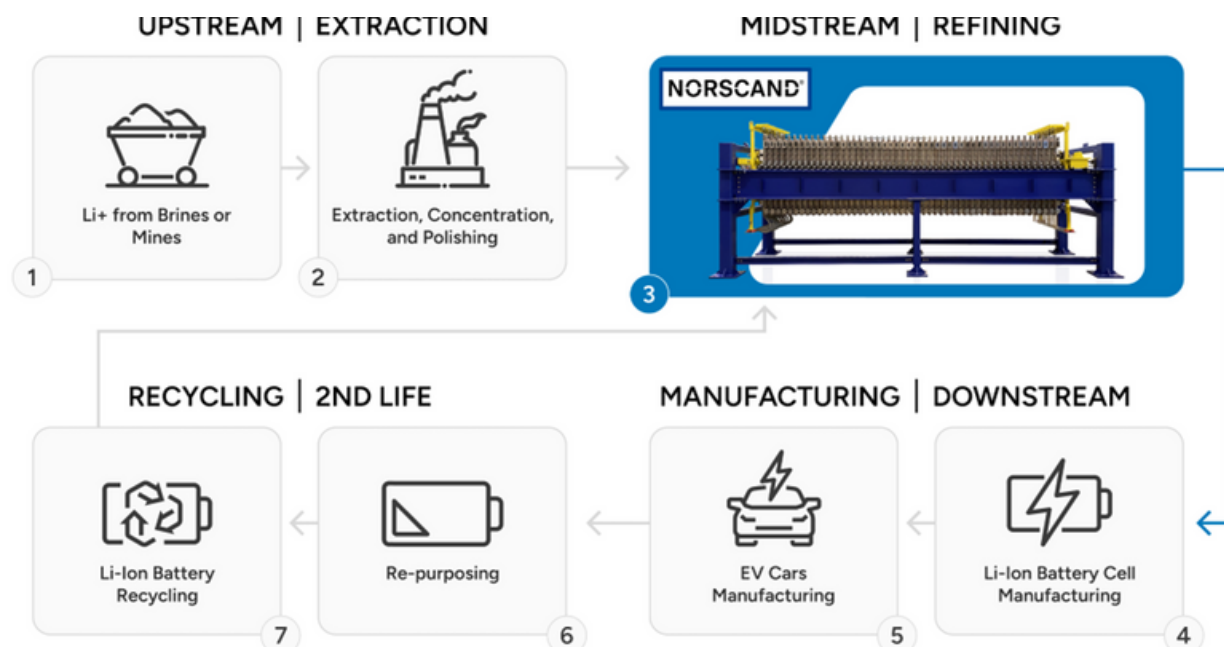
Hydrochloric acid can be produced as a byproduct to be sold or used in upstream processing. In combination with renewable energy, electrolysis reduces chemical consumption, waste production and carbon emissions.

NORSCAND® PLATFORM

A Proven Path to Sustainable Lithium

Just add electrons

All historic production methods for producing battery-grade lithium involve the addition of concentrated reagents. NESI's NORSCAND® Electrolyser eliminates this expensive and carbon-intensive requirement. Feedstocks sourced from salars, geothermal brines, produced water from oilfields, hard rock, and even black mass from recycling are all compatible with our electrolytic flowsheet. Direct lithium extraction (DLE) – a newer, more sustainable extraction method – pairs especially well with the NESI flowsheet. Our simplified supply chain benefits a wide range of project stakeholders, from those with environmental expectations, to owners looking to reduce operating costs, to offtakers in need of higher-purity battery-grade lithium for a longer lasting final product.



The NESI Advantage

High Performance

- Lowered CAPEX and OPEX
- High purity product
- Low voltage, high current efficiency

Scalable

- Engineered turnkey systems
- Flexible and scalable single element design
- Modular electrolyzers

Reliable

- Proven industrial validation
- Comprehensive engineering support and pretreatment expertise
- Simplified supply chains

Sustainable

- Reduced reagent consumption and transport
- Reduced/eliminated waste streams



WE ARE HERE TO HELP

Integrating NESI's technology to your advantage

With decades of experience in both electrochemistry and globally delivering industrial process plants, NESI has the ability to successfully deliver our lithium salt splitting process as well as the knowledge to optimize it for your unique project and feedstocks. Our team of engineers and project delivery experts are available to help you explore the financial, environmental, and permitting benefits of using the NORSCAND® A15 electrolyser for your lithium refining project.

NORAM Electrolysis Systems Inc.

12920 Mitchell Rd,
Richmond, BC V6V 1M8
Canada



+1 (604) 696-6901



questions@nesi.tech



www.nesi.tech

