

Low-Carbon Hydrogen, Alternative Fuels & Feedstocks

Hysata, Stanwell, Australia

Hysata 5 MW Electrolyser USING GREEN HYDROGEN TO CUT ENERGY USE AND EMISSIONS

HOW TO ...

... REDUCE EMISSIONS BY SWITCHING FUELS AND USING SUSTAINABLE INPUT MATERIALS

DEMONSTRATION PROJECTS





HOW TO: Produce clean fuel



Powert \rightarrow highly efficient electrolyser with green electricity

Produce costeffective green hydrogen

(using 20% less electricity)



TARGET SECTORS

- Iron & Steel
- Chemicals & Refining
- Other Energy Intensive & Hard to Abate sectors

DEMONSTRATION PROJECT

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SOLAR CLINKER USING SOLAR POWER TO MAKE CO₂-FREE CEMENT



CEMEX, Synhelion,

Mexico

DEMONSTRATION PROJECT

Tata Steel, Germany & Italy

HOW TO: Reduce carbon emissions

in steel production

MaxH2DR

UNDERSTANDING HYDROGEN USE IN STEEL PRODUCTION FURNACES

Topsoe, Denmark

HOW TO: Create high-efficiency hydrogen

 \rightarrow efficient roduction

oxide electrolyser cells (SOECs)

(for steel, ammonia, chemical & fuel production)



TARGET SECTOR

Other Energy Intensive & Hard to Abate sectors



DEMONSTRATION PROJECT

High-Temperature Electrolyser HYDROGEN PRODUCTION AT WORLD'S LARGEST SOEC MANUFACTURING PLANT

15) + 2 °C - 1000 - 600

Use solid \rightarrow Reduce CO₂ emissions by more than **4 Mt/year**

> **Planning expansion** to 5 GW-capacity plants

TIMELINE

2024: SOEC plant starts operations (500 MW/year)

WWW.NET-ZERO-INDUSTRIES-MISSION.NET

GET INVOLVED & STAY IN TOUCH



The Net-Zero Industries Mission is a collaboration across countries, government, and industry to drive and accelerate the adoption of decarbonisation technologies by hard-to-abate, energy-intensive industries. Technology demonstrations are a critical tool in sharing experience and building trust for industry investments.



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MORE INFO

Demonstration project database

