



# Hydrogen for Zero Emission Off-Grid Power

Katie Mollon  
BOC Product Manager for Stationary Power



## Linde Introduction

BOC is a Linde Company with significant existing hydrogen activity



→ The leading industrial gases and engineering company, combining technology and operational excellence

→ \$162 billion market cap

→ Formed in 2018 with the merger of Linde AG (HQ Germany) and Praxair, Inc (HQ US), two companies with 140 years of shared history.

→ BOC (HQ UK) merged with Linde in 2006, and is the largest industrial gas company in the UK and Ireland

→ Best-in-Class Safety Performance



# Our Mission

## Making our world more productive

Through our high-quality solutions, technologies and services we are making our customers more successful and helping to sustain and protect our planet.

# 100+

## Countries

Strong history in UK, Germany, America, leading Green H2 geographies

# 100 years

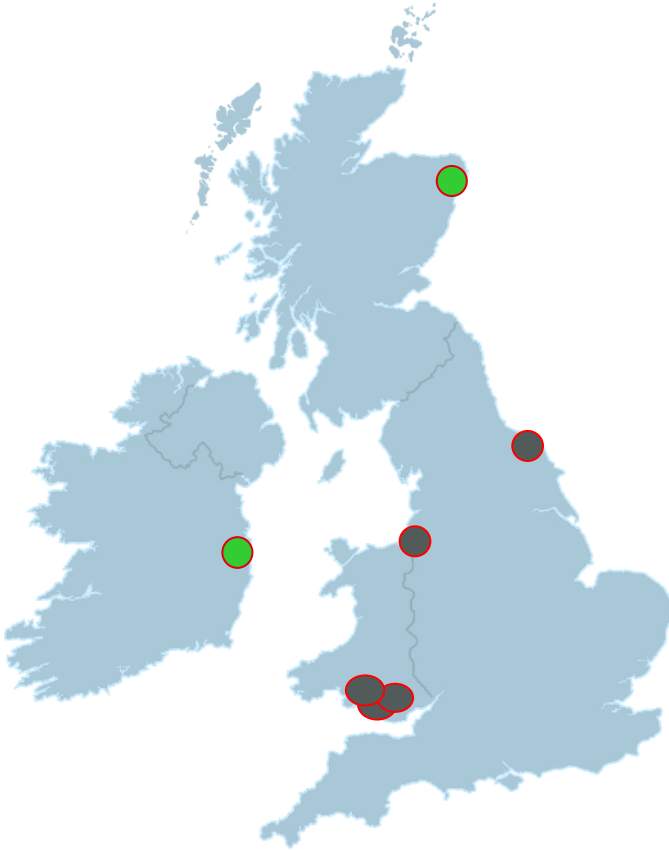
## Of harnessing the power of Hydrogen



# \$2.2 billion

## 2020 Global H2 Sales

Decades of experience in hydrogen, target to grow sales four-fold by mid 2030's.





-  H2 production - electrolysis
-  H2 production – steam methane reforming



- Extensive hydrogen production and supply network
  - UK's largest supplier of hydrogen
- Safely producing hydrogen for over 100 years
- 5x SMR production plants
  - Teesside is UK's largest independently owned
- 2x electrolysis sites
- 70+ tube trailers
- One of Europe's largest hydrogen refuelling stations





# Leader in H2 for mobility, industry and stationary power



## Mobility

H<sub>2</sub> bus refuelling using electrolysis  
Kittybrewser, Aberdeen

200 refuelling stations worldwide

World's first H<sub>2</sub> refuelling system for  
passenger trains  
Bremervörde, Germany

Worlds first liquid H<sub>2</sub> fuel- cell ferry  
Rogaland, Norway



## Industry

Hydrogen partner in multiple BEIS funded  
fuel switching trials

Supplier for worlds first hydrogen float  
glass production

Supplier for worlds first net zero fuel mix  
for clinker production



## Stationary Power

First commercially viable hydrogen fuel  
cell

HYMERA®

Helping CCTV and lighting markets  
decarbonise for over 10 years



## Stationary power

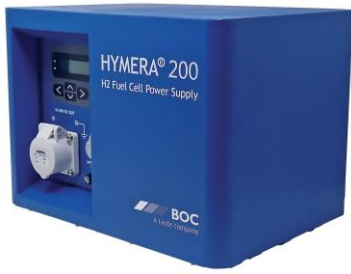
- Diesel generators are used extensively
- Unwanted emissions
- Noise
- Cost increases
- Industry is starting to seek alternatives





# Enter: Hydrogen Fuel Cells

20W



250kW



500g

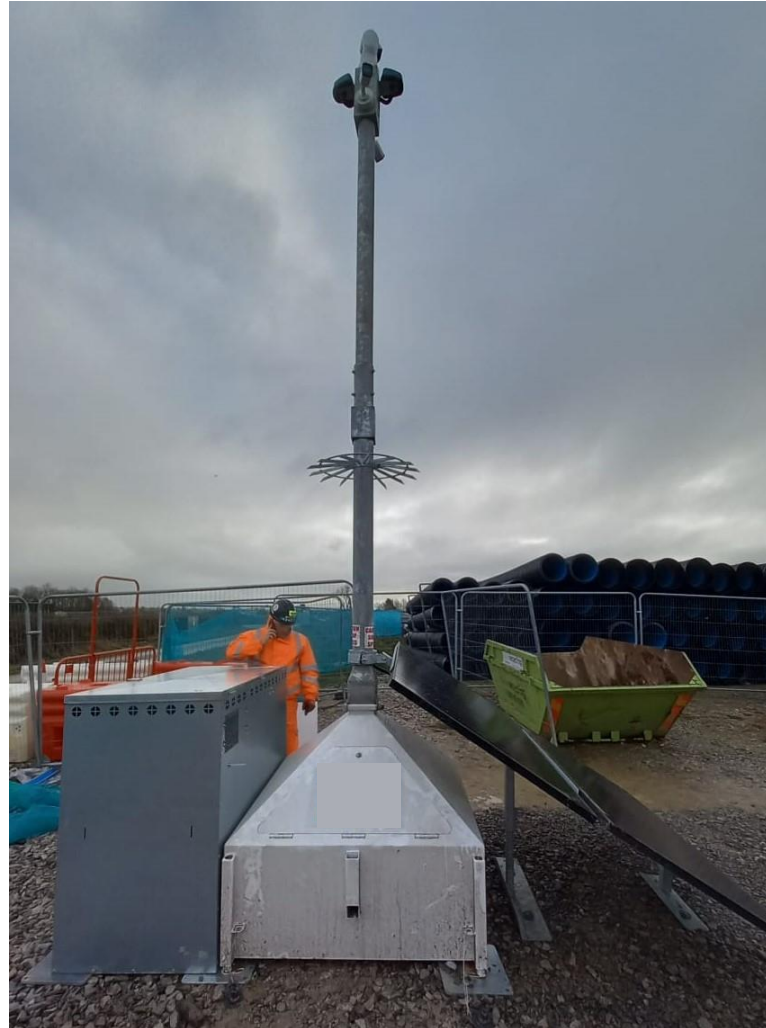


500kg





TCP telescopic lighting tower



Secom solar/ HYMERA® security camera

- BOC have been providing a solution for over 10 years with HYMERA®
- Two key sectors
  - CCTV
  - Lighting towers



# BOC is experienced in supplying hydrogen for all fuel cell types



Goodwood festival of speed



Construction on the A585



Boomtown festival at Winchester



Filming of a Netflix series





**Hydrogen power**



[Watch Video Let's Accelerate to a Low Carbon Economy](#)

## What's needed to achieve this

Packages



Hydrogen



Safety







**Thank you for your attention**

Katie Mollon  
Product Manager for Stationary Power  
Tel: 07392 120306  
Katie.mollon@boc.com  
[www.boconline.co.uk](http://www.boconline.co.uk)

