

Linde Hydrogen Fueling Overview

Berkeley, CA

20 May 2016

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CLEAN
TECHNOLOGY
BY LINDE

THE LINDE GROUP

Linde

Linde developments and projects along key dimensions



20 Stations Program

Roadmap to Commercialization



H2 Mobility – Developing a hydrogen refueling infrastructure in Germany



Our goals

- Synchronize HRS roll-out with FCEV ramp-up
- Create a common structure to de-risk HRS deployment
- 100 hydrogen refueling stations in the next four years
- 200 to 400 Hydrogen refueling stations by 2023, distributed all over the country
- 250,000 FCEVs on the roads in 2023
- 350 MEUR planned investments

H₂ Mobility Initiative

Action plan for the construction of a hydrogen refuelling network in Germany by 2023

~400

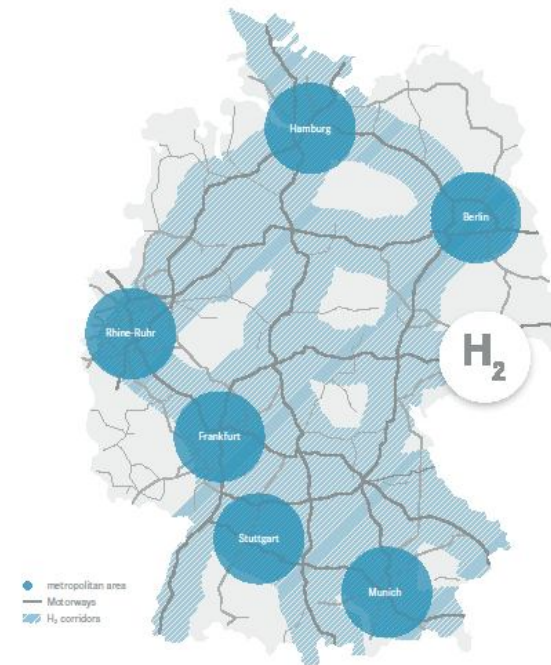
Stations will Germany's public hydrogen refuelling network cover by 2023.

~90

Kilometers lie between the H₂ filling stations on the motorways around the metropolitan areas by 2023

>10

H₂ filling stations will be available in each metropolitan area from 2023



West Sacramento Station

1st Fully Commercial Station in the US



- Credit Card Ready (No user Agreements)
- DMS Approved for sale by KG
- SAE J2601 Compliant
- OEM approval Letters

Beyond infrastructure



BeeZero: the first hydrogen-fueled Car Sharing program in the world – as of summer 2016 in Munich!



Zone-based Car Sharing
with 50 FCEVs in Munich



Target group are inhabitants, employees and visitors of the Munich City center

Spontaneous booking with short notice reservation for drives of up to 400 km

Use for day and weekend trips or for shopping outside the city

Key Drivers To Move Forward



- **Industry: Faster, Smaller, Less Expensive**
- **Government:**
 - Provide stability in planning
 - Policies to support demand
 - Remove regulatory barriers: permitting, code issues
 - Recognize there is a trade-off...we can't (initially) have our cake and eat it to!