Hydrogen Region North West Germany

NSC North Sea Talks webinar on Smart Specialisation and Renewable Energy Solutions in the Transport Sector

5th October 2021
EWE Group – Energy supply for North West Germany

Numbers for 2020
Sales of EUR 5.6 billion
OEBIT of EUR 442,0 million
Average number of employees 9.140

Customers
1.4 million electricity, 0.7 million gas,
0.7 million telecommunication

Image: EWE AG
Green Hydrogen in the North West Region

Why the region of EWE has perfect conditions for Hydrogen

- Share of renewable energies in the EWE power grid already today above 90% (Germanys target of 2050)
- Grid constraints caused by renewable energies (e.g. curtailment and excess energy) can be seen in the region today
- The region can provide offshore power production, ports, logistics, industries and required infrastructure
- EWE connects all relevant parts of the hydrogen supply chain (production, storage, electricity and gas grids)

EWE is active in...

- **Sector coupling** (heat, power, mobility, industry) and linking gas and power grids
- **Hydrogen readiness** of required infrastructure (e.g. pipeline grid and storage facilities)
- Usage of green hydrogen in **industry and transport**
- **Large scale storage** of green hydrogen in salt caverns
The development of an integrated hydrogen economy

1. **Renewable energies**
   On- and offshore capacity with additional potential for deployment

2. **Initial pipeline grid**
   Connecting production, storage and usage of hydrogen via pipelines.

3. **Sea and inland ports**
   Important logistic hubs with potential for import of hydrogen

4. **Large scale storage facilities**
   Introducing flexibility to an energy system based on renewables

5. **Market in transport sector**
   Usage of green hydrogen for heavy duty and other transport applications

6. **Market in industry sector**
   Usage of green hydrogen for industry applications like steel production

Bilder: EWE AG / swb AG

01.10.2021  Eva Stede I NSC North Sea Talks I public
1. GRUPPE HYSTARTER

2. GRUPPE HYEPIERTS

3. GRUPPE HYPERFORMER

Quelle: NOW GmbH
HyWays for Future: Hydrogen Region North West

Fokus transport sector

Considering the whole value chain for a holistic approach

- **Green H2-Hub** for H2 production from renewable energies
- **H2-Trailer** (potential for H2 pipeline)
- **Pressure Storage** (potential for salt caverns)
- **Deployment of more than FCEVs** (buses, trucks, refuse collection vehicles, etc)
- **Deployment of Hydrogen Refueling Stations**

- more than 100 stakeholders
- approx. 90 million invest in the model region
- 2020-2024
## Hyways for Future innovation cluster

Creating networks

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<th>Working group</th>
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<td>1. Municipal vehicles and public transport</td>
<td>Planet, VEJ, Stadt Oldenburg</td>
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<td>2. Freight transport and logistics</td>
<td>IHK Oldenburg, HS Bremerhaven</td>
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<td>3. Maritime applications and port logistics</td>
<td>DLR, MARIKO</td>
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<td>4. Infrastructure and Deployment</td>
<td>EWE NETZ, swb</td>
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<td>5. Public Relations and Marketing</td>
<td>Metropolregion Nordwest, EWE AG</td>
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Thank you for your attention