

# H2 Aberdeen: Hydrogen is here

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# WHY HYDROGEN IN ABERDEEN?

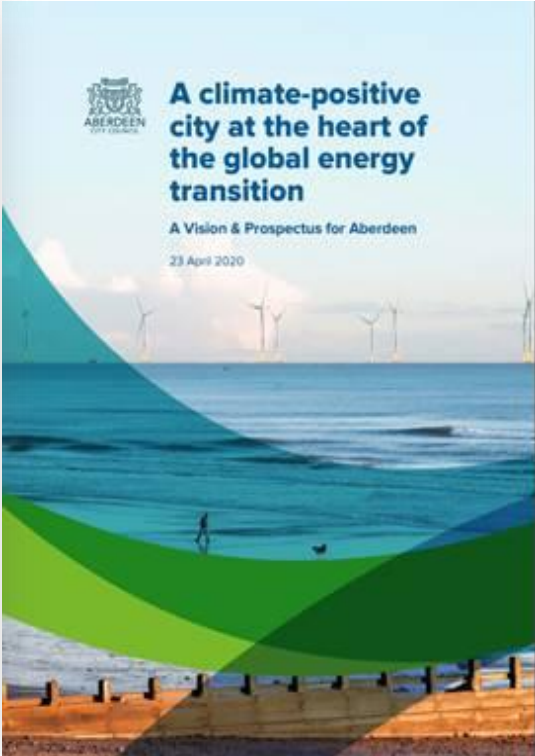
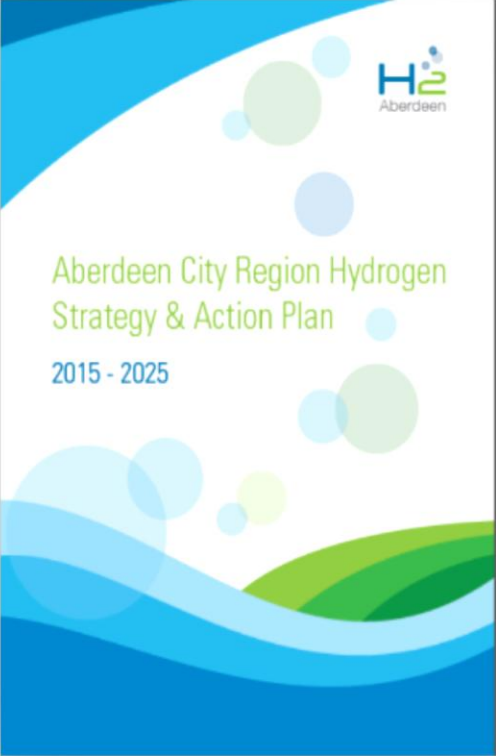


*“Scotland for example is still significantly dependent on **the oil and gas industry**, with over **10% of workers in Aberdeen directly employed by the sector... at least 68% of the UK’s oil and gas workers have skills that could transition to the low carbon sector.**”*

North Sea Transition Deal, March 2021



# WHY HYDROGEN IN ABERDEEN?



Offshore Wind - North East Coast



Highly Skilled North Sea Workforce

Aberdeen at the forefront of UK Energy Transition  
Energy Transition Zone and Aberdeen Harbour



# HYDROGEN DEMAND

Main focus of hydrogen demand stimulation to date has been hydrogen for transport



Aberdeen has one of the largest and most varied hydrogen fleets in Europe





# REFUELLING INFRASTRUCTURE



- 2 stations delivering 130 and 360kg/ day
- 350 & 700 bar capable
- Refuel cars, vans, buses, large vehicles
- Both 'green tariff' stations



# H2 ABERDEEN TIMELINE

2013 onwards

● **Aberdeen Hydrogen Bus & Kittybrewster HRS**

2015: 10 hydrogen buses and refuelling station

● **Hydrogen Vehicle Options**

Funding from EU, UK and Scottish governments to trial FC cars, dual-fuel for large vehicles and FC range extended electric vans

● **Second HRS**

2017: opening of ACHES - increased the hydrogen supply and offered hydrogen resilience for the City

● **Innovative Uses of Hydrogen**

2019: Onsite Energy Centre at TECA with 3 fuel cells provide heating, cooling and power to the Exhibition Centre and 2 hotels

● **Explore Ways to Increase Demand**

15+10 World's first hydrogen double decker buses

Discussions with NE organisations

Explore alternative hydrogen uses such as rail, heat, marine, industry

● **Commercial Supply Aberdeen Hydrogen Hub**

Business case for commercial supply of green hydrogen

Discussions with market

# ABERDEEN HYDROGEN HUB



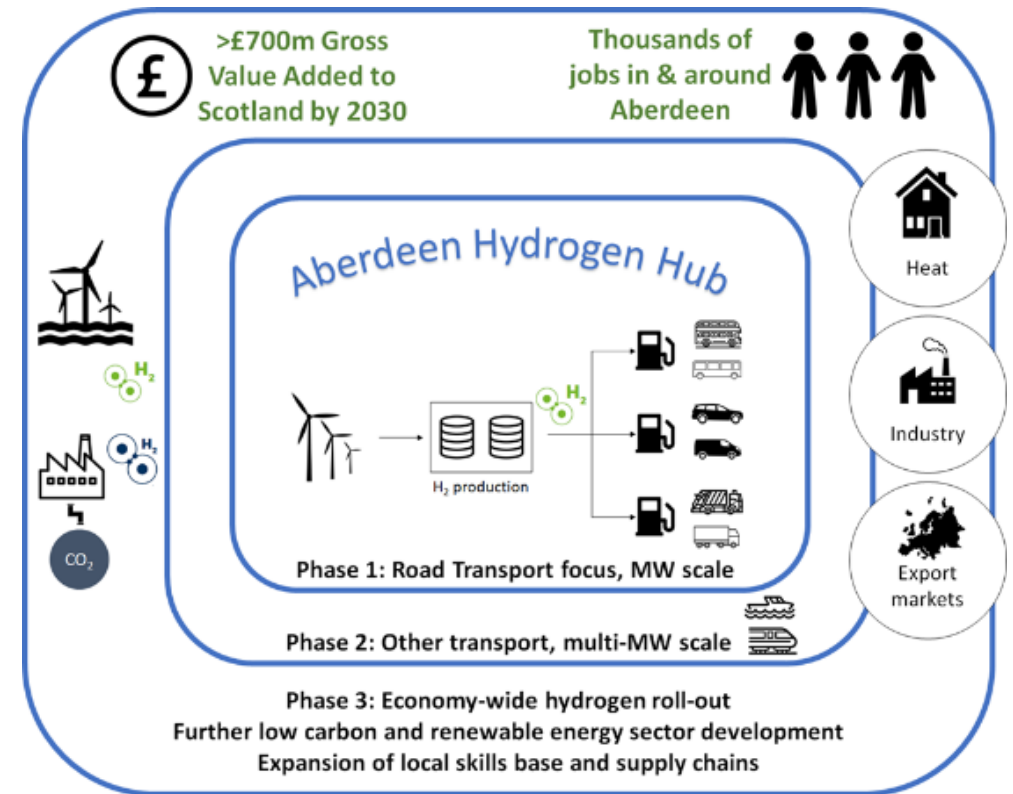
**Phase 1** – provision of a resilient, cost-effective supply of green hydrogen on a commercial basis to the market to support the existing and proposed transport projects.



**Phase 2** – Expansion in the short to medium term to connect to larger volume utilisation of hydrogen – trains, trucks and marine.



**Phase 3** – Whole system approach to supply and demand. Innovation, skills and transition hub to support expansion of the local supply chain. Pursue the ambition for Aberdeen to be the centre of a brand new Energy production business, exporting H2 to the world.



# ABERDEEN HYDROGEN HUB

- On 3<sup>rd</sup> February 2022 announced a new Joint Venture company wholly owned and funded by both the Council and bp to deliver the Aberdeen Hydrogen Hub
- bp will build, operate and manage the Hub including:
  - Solar power array
  - Green Hydrogen production facility
  - Refuelling for public transport, trucks, cars and vans
- The Hub will be Scotland's first scalable green hydrogen production facility with first gas expected Q1 2024
- Inclusive growth by supporting hydrogen supply chain developments, skills and training and wider community benefits
- Potential for delivery of future phases could see production scaled up for export through larger volumes of hydrogen using offshore wind developments



**Hydrogen**  
**is here.**



# THE FUTURE...

- Raising demand for hydrogen across City Region – working collaboratively with neighbouring authorities on fleet procurements
- Includes further deployment of buses and retrofitting Council fleet – Council has committed to large scale retrofit of Waste vehicles (42)
- Adaptation of City Council facilities for interim hydrogen and tube trailer refuelling for wider distribution
- H2/EV Super Depot - Transport & Plant
- Hydrogen for heat in District Heat Network, maritime and rail applications
- Working with North East Scotland Hydrogen Ambition Group (NESH2A) and collaborating with other H2 projects across the region including CCUS, AD Plant H2, Offshore Wind H2, H2 Export and more....



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Thank you, any questions?



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