



**Hydrogen
is here.**

Jim Johnstone
Service Manager – City Development
Aberdeen City Council



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”

North Sea Transition Deal, March 2021

“... The Review also indicates that over 90% of the UK’s oil and gas workforce have medium to high skills transferability and are well positioned to work in adjacent energy sectors.”

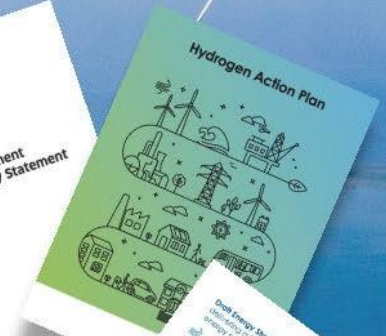
UK Offshore Energy Workforce Transferability Review, RGU May 2021



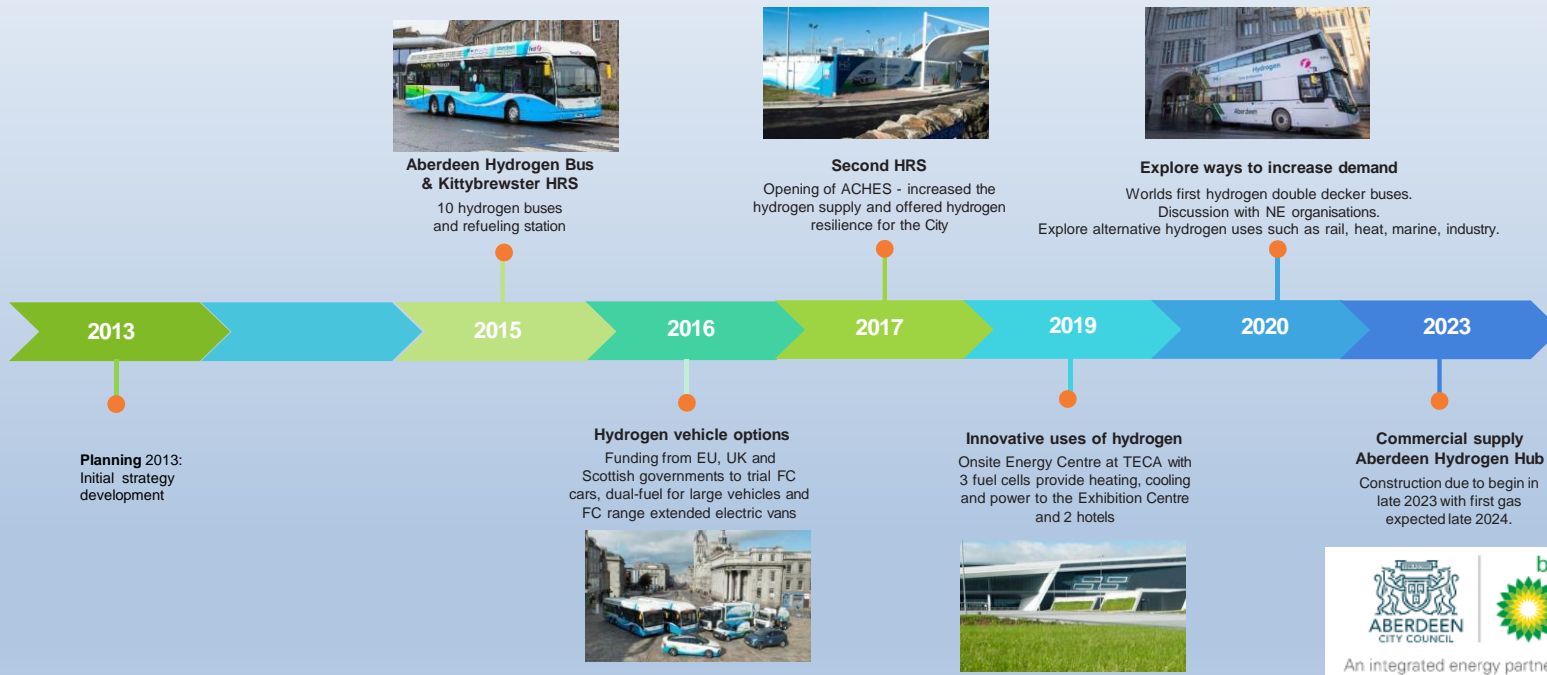
Policy Background

Hydrogen policy and principal funding in Northeast Scotland comes from both national and regional government to facilitate local government delivery

- ACC delivers UKG and SG aspirations to the benefit of the Aberdeen region
- Historically, EU strategy/funding enabled many of the region's early H2 projects
- Hydrogen projects in the region to date have been designed to
 - deliver government policy
 - support the aspiration of 'energy transition' to a post-'oil and gas' energy sector



H2 Aberdeen Timeline 2013 - Present



Refuelling Infrastructure



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

Aberdeen Hydrogen Bus Project



- Largest bus trial in Europe
- 10 fuel cell buses
- £1.2m per bus
- Rehomed for training

Hydrogen Mobility in Aberdeen



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

JIVE (Joint Initiative for hydrogen Vehicles across Europe)



World's First Hydrogen Double Decker Buses

- The world's first hydrogen double deck bus – manufactured in Ballymena, Northern Ireland by Wrightbus
- In service with operator First Bus from January 2021
- A current fleet of 15 with 10 additional buses due to be delivered.
- Performance – 1500 tonnes of CO₂ savings @ June 2023

H2ICED® Vehicles



Dual-fuel retrofitting has the potential to save up to 40% of emissions compared to purely diesel vehicles

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.



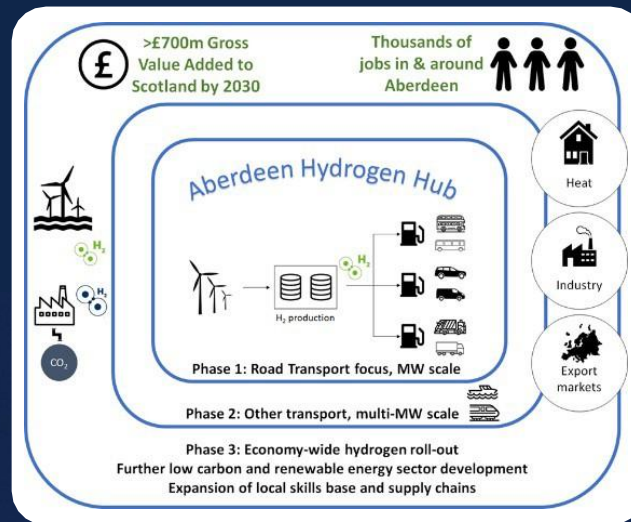
Phase 2

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.



FUTURE OBJECTIVES:

Positioning Aberdeen to deliver on regional and national ambitions

Maintenance and Infrastructure

ACC and regional Fleet, Depot, and Infrastructure

Portable re-fuelling

Enable local H2 supply to support other regions

Feasibility studies and demonstrations

Rail and Heat feasibility studies - supporting government ambitions and district heat networks

Facilitating future collaboration and projects

Identifying funding and supporting investors into the region – sharing our learning

H2 Development

Skills - Upskilling technicians for transport & plant H2 Economy

Supporting regional stakeholders to position Scotland as a Hydrogen exporter

SG ambition to become a net exporter of hydrogen to UK and EU markets



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[H2 Aberdeen](https://www.linkedin.com/company/h2-aberdeen)



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