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## Why Hydrogen in Aberdeen

"... 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



### 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



## Hydrogen Mobility in Aberdeen



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



### **Fuel Cell Electric Vehicle Trials**



### H2ICED® Vehicles



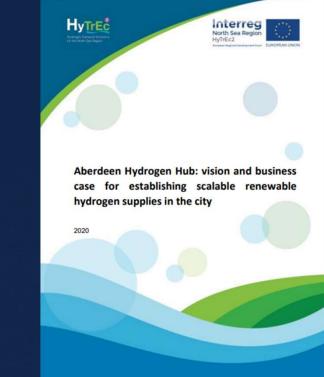
Dual-fuel retrofitting has the potential to save up to 40% of emissions compared to purely diesel vehicles





### Aberdeen Hydrogen Hub

- Cost of hydrogen high ...and getting higher
- No connections to renewables
- Council not a fuel supplier!
- Ageing assets
- Lack of wider interest from market in taking on large scale production projects. What's next?
- As part of the Interreg NSR HyTrEc2 project investigated the potential business case for commercially available green hydrogen production
- How could we interest the 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.



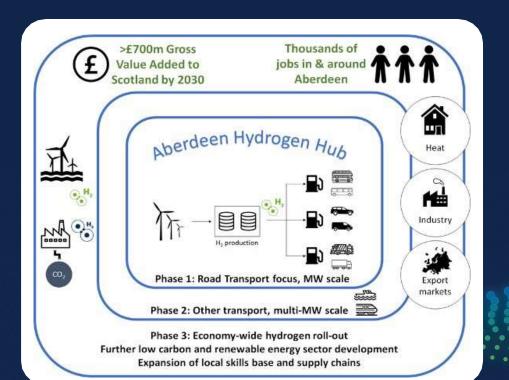
#### Phase 2

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

- Approached the market using a Prior Information Notice, then undertook an Invitation to Participate in Dialogue
- Formed a Joint Venture company with bp in February 2022. bp will build, operate, manage and maintain the facility including:
  - Solar power array
  - Green hydrogen production facility
  - Refuelling for public transport, trucks, cars and vans
  - Supporting h2 supply chain, skills, training and wider community benefits

Homepage - Aberdeen (bpaberdeenhydrogenhub.com)







An integrated energy partnership

## **FUTURE OBJECTIVES:**

### Positioning Aberdeen to deliver on regional and national ambitions

### **Vehicle Delivery and Maintenance**

ACC increasing the number of vehicles on the Council's fleet – opportunities for Centre of Excellence and maintenance of h2 vehicles in wider region. Depot adaptations for H2 and EVs

### **EU Project Delivery Legacy**

Knowledge sharing, enabling local H2 supply to support other regions and working with neighbouring authorities and other public sector bodies for economies of scale

# Facilitating future collaboration and projects

Identifying funding – such as Horizon Europe and supporting investors into the region, and working with other H2 producers as part of ETZ Ltd NESH2A

### H2 Skills Development

Skills - Upskilling technicians for transport & plant H2 Economy and working with Energy Skills Partnership, ETZ Ltd, bp on skills development

### Supporting delivery of the Aberdeen Hydrogen Hub Joint Venture

Wider energy transition deliverables, plus contributing towards SG ambition to become a net exporter of hydrogen to UK and EU markets

### Feasibility Studies and Pilots

Rail, Heat and H2 Refuelling Footprint feasibility studies to understand potential demand generators





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