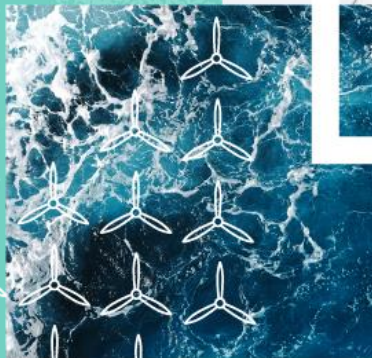


Workshop on Hydrogen Valleys – Session 3: Securing public financial support/public commitment/ state-aid and regulatory issues

Simon Robertson
Partnership Funding Manager

28th February 2023

Towards an EU Roadmap for Hydrogen Valleys
Workshop, Brussels



|| INTRODUCING SSE RENEWABLES



- UK headquartered FTSE 100 company
- 12,000 staff (1,000 in Ireland)

Our Vision

Be a leading energy company in a zero carbon world.

Our Purpose

Provide energy needed today while building a better world of energy for tomorrow.

Our Strategy

Create value for shareholders and society from developing, operating and owning energy and related infrastructure in a sustainable way.



- Onshore Wind
 - Own almost 2GW operational wind in UK and Ireland. Further 1GW in development
 - Developing assets in Europe, US and Asia
- Offshore Wind
 - World leading developer, operator and owner
 - Currently constructing worlds largest offshore wind project, Dogger Bank 3.6GW
- Hydro Power
 - Own and operate 1.5GW including 300MW pumped storage
 - Further 1.5GW pumped storage in development
- Power-to-X and Hydrogen
 - Aim to develop, build and operate more than 1GW of 'green' hydrogen by 2031.

INTEGRATION AND COLLABORATION OF PUBLIC AUTHORITIES

- Positives
 - Well developed local partnership across the full value chain
 - Linked with strong industry networks
 - Close working with local, national, European bodies
- Main challenge – An Irish National Hydrogen Strategy is lagging



14th April 2022: Ireland's first Hydrogen Valley was announced by An Taoiseach, Micheál Martin TD at a conference hosted by the Port of Galway

Public sector stakeholders/groups



Rialtas na hÉireann
Government of Ireland



Local Partners



OLLSCOIL NA GAILLIMHE
UNIVERSITY OF GALWAY

SH2AMROCK – HYDROGEN VALLEY PROJECT



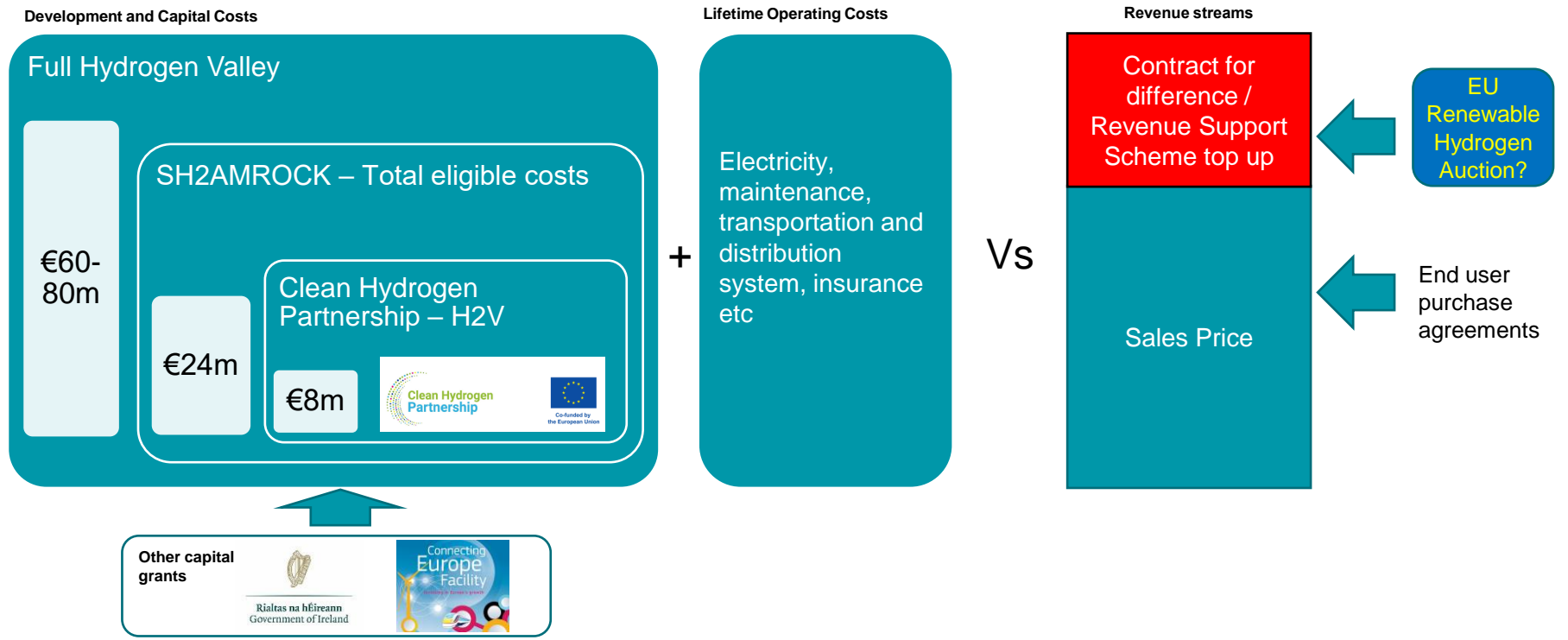
The project is supported by the Clean Hydrogen Partnership and its members.

- Coordinator: SSE Renewables Ireland
- Scope
 - Design, build and operate the Galway Hydrogen Hub
 - Set-up and demonstrate multiple end uses in Mobility and Industry
 - Research and replication programme
- €8m total grant/ €24m eligible costs
- 30 partners (globally)
 - Infrastructure
 - Research
 - Replication
- Duration: June 2023 to May 2028 (including 2 years of operations).



FINANCING STRUCTURE FOR SH2AMROCK

Budget Breakdown and Income streams



COMBINING EUROPEAN, NATIONAL AND PRIVATE FUNDING

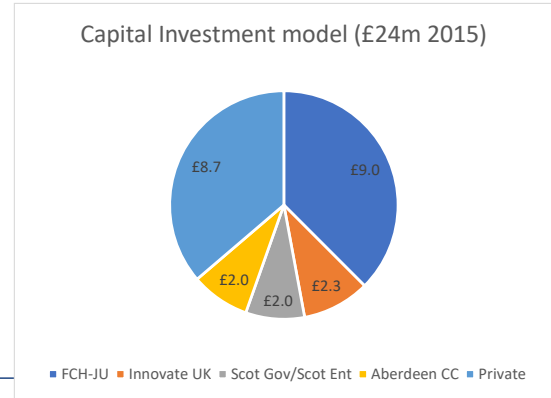
Aberdeen hydrogen bus project, 2014-Ongoing

| | |
|-------------|---|
| Site | Aberdeen, Scotland |
| Application | Ten zero-emission hydrogen fuel cell buses, Europe's largest fleet |
| System | 150kW FCveloCity®-HD power modules integrated onto Van Hool chassis |
| Fuel | Hydrogen provided by BOC, a member of the Linde Group |
| Objectives | To support Aberdeen's goal to remain a world-class energy hub, leading a low carbon economy |



| Public Funders | Private funders |
|---|---|
|      |      |

- Key ingredients for success
 - Strong local private sector and local council partnership drove the development
 - Spoke with one voice to key stakeholders
 - Fortuitous timing on grant funding opportunities enabled a 62%:38% Public:Private funding split



|| CONCLUDING REMARKS

Key Challenges

- Policy, regulatory and funding readiness misalignments.
- Compatibility of funding windows, eligibility criteria and state aid limits.
- Funding across the full value chain is needed to unlock the hydrogen eco-system.
- Absence of consistent long term revenue support for producers.

Solutions

- Hydrogen valleys are a bottom up approach to driving change in less developed regions Member States.
- Strong local partnerships speaking with one voice to help align Government and European Commission stakeholders.
- Flexibility and pragmatism of public Funders needed to enable blended funding options.
- Developers and end users need long term visibility of stable funding sources spanning the full value chain.

THANK YOU

Please get in touch:

simon.robertson2@sse.com

SH₂AMR^{CK}
Ireland's Emerald Hydrogen Valley



sse
Renewables

For a better
world of energy