



Integrating Hydrogen into Orkney's Energy System

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A peedie storm

EMEC 
HYDROGEN



Orkney

- Big winds
- Big waves
- Big tides

⇒ Big electricity generation potential



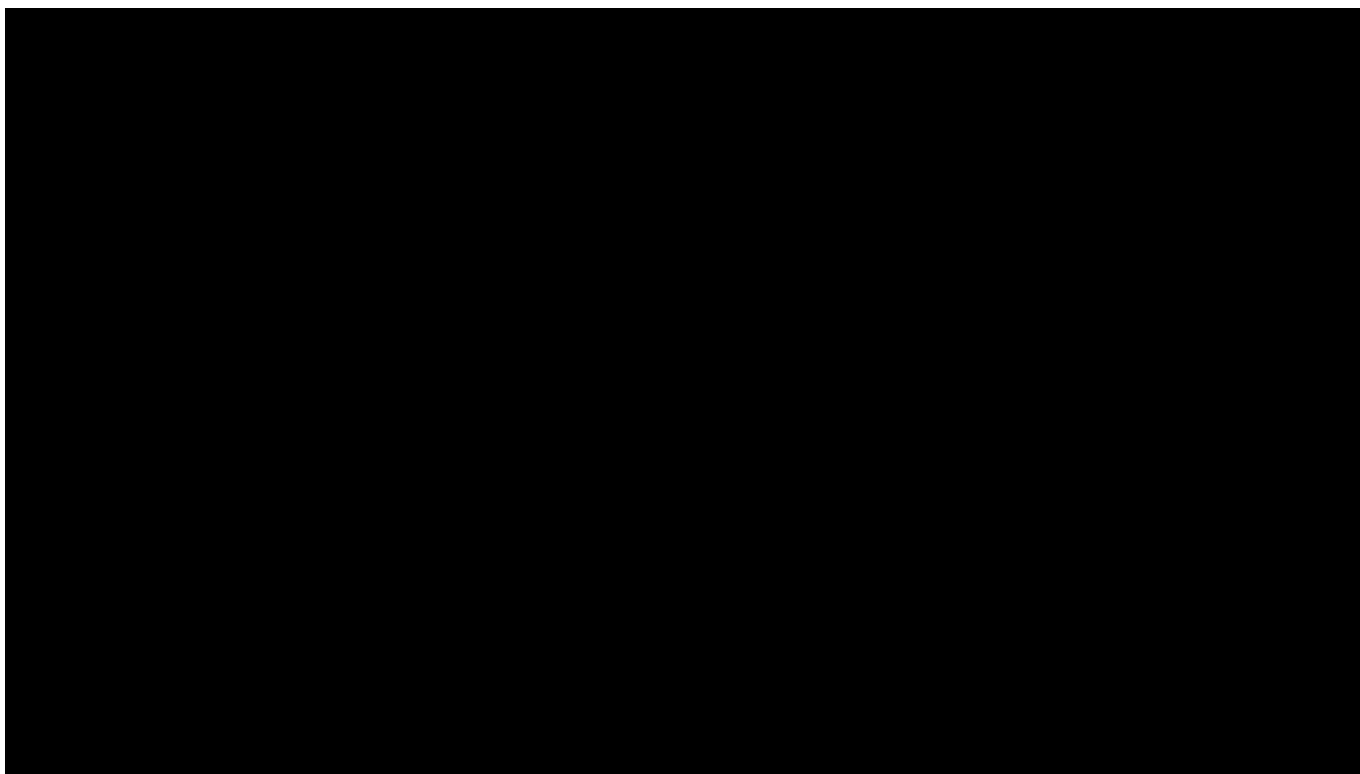
Energy Storage and Hydrogen



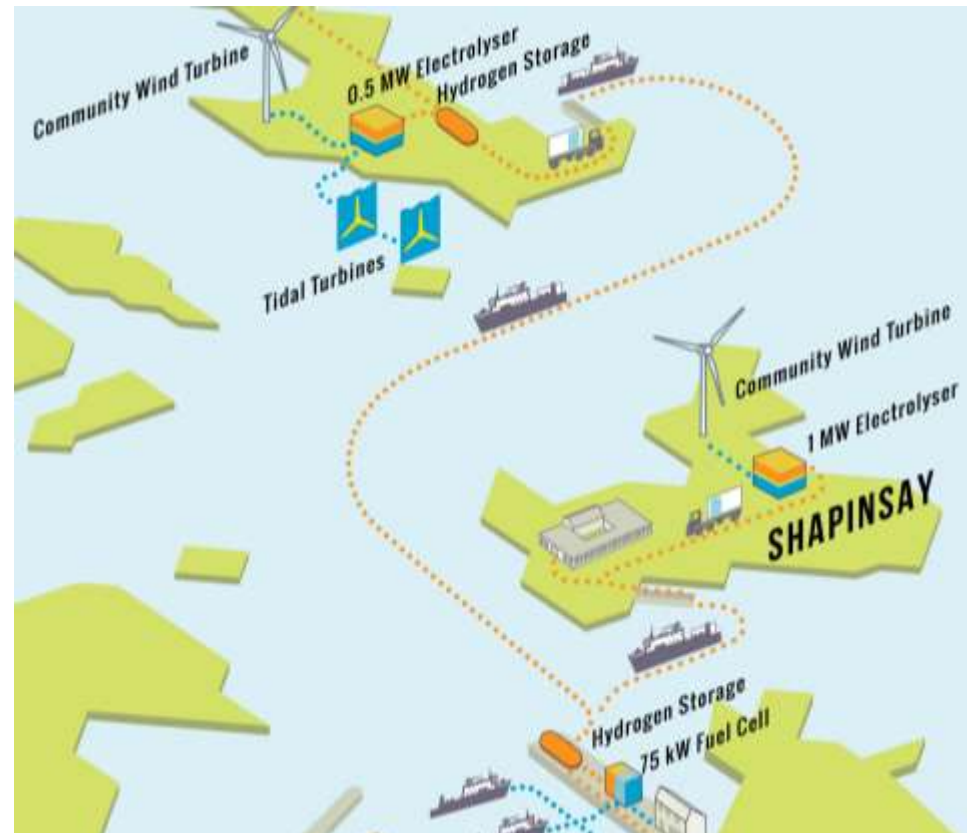
BUT....

- Constrained grid
- Remote & rural

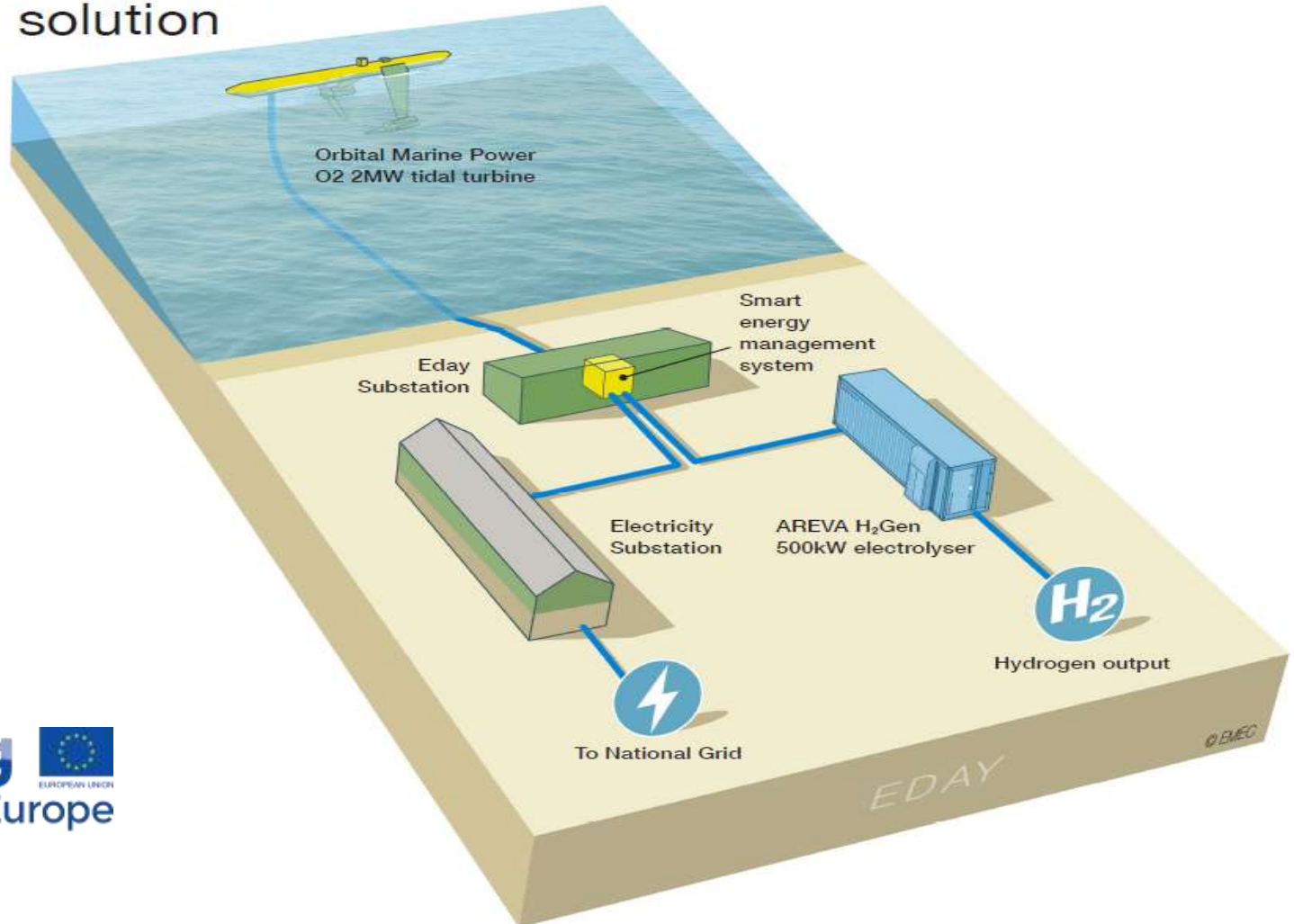
Orkney Hydrogen



Orkney Hydrogen Infrastructure



'All-in-One' solution



Applications



Building markets to
enable transition

Projects >>> Commercial

Scale of next steps

Power

Heat

Transport

Industrial



Challenges

Energy trilemma

- Security
- Sustainability
- Affordability

People & skills

Technology

Modelling tools / data

Infrastructure

Orkney climate

Interconnection



Investment Time

Climate crisis: CO2 levels rise to highest point since evolution of humans

"We don't know a planet like this"

Harry Cockburn | Monday 13 May 2019 11:00 | 54 comments



Burning fossil fuels remains the biggest producer of CO2 (Getty)

Words from the Past

“To the person who does not know where he wants to go there is no favourable wind.”

Seneca (4BC – 65AD)





Thank you

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