### **Developing a South Wales Industrial Cluster**

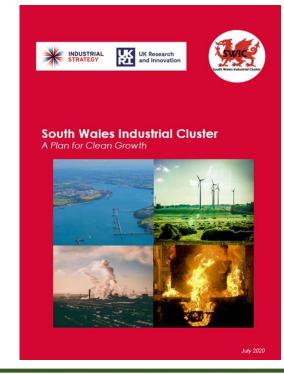
- Steel, Oil, Cement, Chemicals, Nickel, Insulation, Paper, General Manufacturing
- Pembroke CCGT, Biomass and EFW stations
- 10 MTPA Industry + 6 MTPA Power











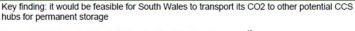
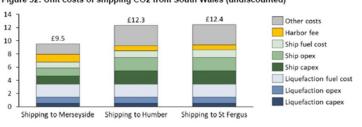


Figure 31: Options for South Wales to ship CO2 to other ports 18





Figure 32: Unit costs of shipping CO2 from South Wales (undiscounted)



BEIS Element Energy Report

#### Cluster Plan: 'A Plan for Clean Growth' (Feb '21 to March '23) 5 Steps **South Wales Industrial Cluster** Eng/Res efficiency Understand our **Fuel Switching** technological options **Smart Networks** 30 partners CCU CCS **Electricity Distribution Mini Clusters** Come together Hydrogen Distribution Milford to form a Net **Hydrogen Supply** Swansea 'Team' **Cluster** Infrastructure Zero Barry Low Carbon Electricity Cardiff Supply CCS Newport **BEIS** Expert Policy & Financials Workgroups Business Models R&D CLWSTWR DIWYDIANNOL DE CYMRU **Skills** INDUSTRIAL CLUSTER

## **Cluster Plan – Elements of the Jigsaw**



**Clean Energy Generation** 

**Carbon Capture Storage** 

**Clean Energy Distribution** 

#### **Site Users (Demand Side)**

Define the need for the above infrastructure

CCUS & Smart Networks offer Clean Growth (across the spatial spectrum)

#### **Stakeholder Management**

(Entity + Touch-Points with City's, Transport, Commercial & Public Sectors to establish infrastructure boundary conditions)

Academic Interaction Skills & Resources, Horizon Projects

**Cluster Plan – Integration** 

Economics of Decarbonisation
Business Models & Finance,
Legal/Legislative

**Technology & Service providers** 

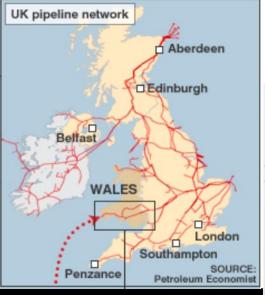
#### **We Need All Pieces**

Cluster Plan currently is providing a forum covered by a comprehensive collaboration agreement for Partners & Participants to come together to work on a plan that is deliverable.

SWIC Cluster Plan Covers 16MtCO2 scope 1 emissions.

#### **Real Opportunity**

To develop collaborative working and gain hi-level insights into plausible pathway to Net Zero Carbon using Circular Economy Pathways



"Developing the art of the possible for decarbonising South Wales"



This map does not represent any specific plans or strategies relating to sites depicted.

off shore





# <u>Deployment</u> <u>Project</u>

Developing the Infrastructure to enable Industrial Decarbonisation



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