



#### WELCOME

# Admiral Prof. Neil Morisetti University College London



### **KEYNOTE**

# Poppy Maltby REGEN



#### **Decarbonising Dorset**

A potential leader... with a long way to go

Poppy Maltby, Head of cities and regions

September 2023

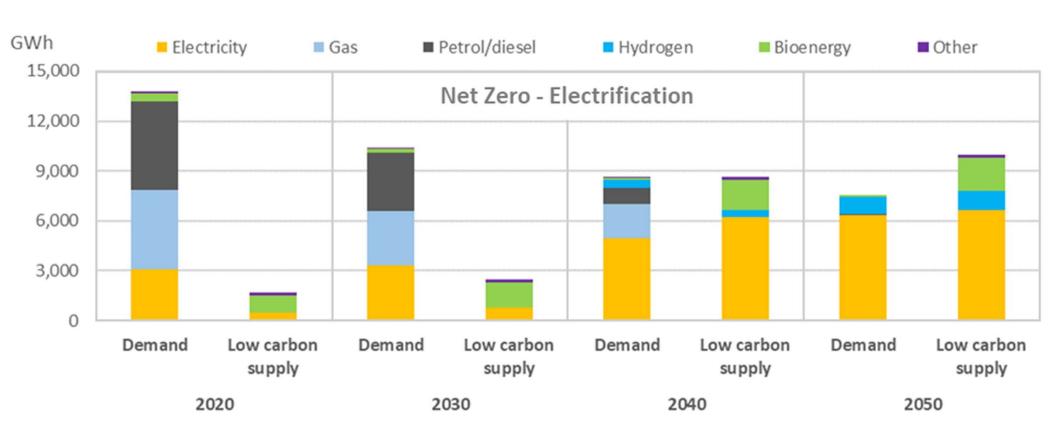


An independent centre of energy expertise, with a mission to transform the energy system for a

zero carbon future

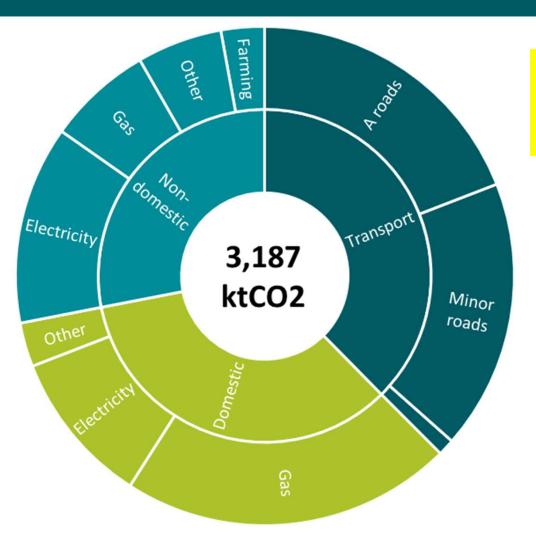






#### Dorset carbon emissions by sector (2020)

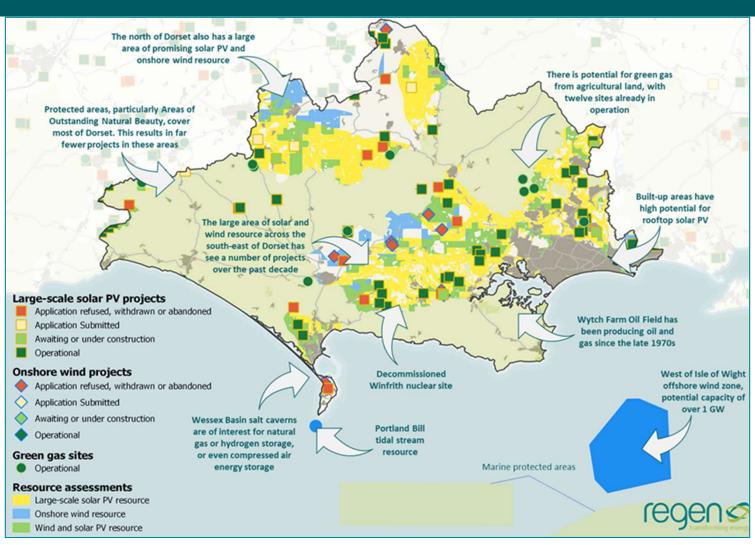




\* Not including c. 2,200 kt from Wytch Farm

#### Low carbon generation opportunities





#### Dorset's route to Net Zero **Opportunities unique to Dorset** No All power Offshore No diesel Generation unabated generation wind generation gas-fired from solar. decision and storage by 2025 power wind, and before 2030 stations. nuclear. Bioenergy Opportunity for a small Dorset generates Salt caverns in Portland may 1 GW of offshore wind off the coast of Dorset feedstocks 500 GWh of low modular nuclear reactor at be developed for gas or could generate 4,800 GWh, c. 50% of total exported for Winfrith dependent on carbon electricity, of hydrogen storage. energy demand by 2040. power which 80% is solar technological progress. generation PV. with CCS, to Subsidy-free solar farms take Solar and onshore wind farms continue to High levels of hydrogen generate This is 5% of Dorset off, with 200 MW developed develop, many co-located with batteries and electrolysis and energy negative total energy in the 2020s. hydrogen electrolysers. Onshore renewable storage provide flexibility emissions. demand. to energy networks. generation exceeds 1,300 GWh by 2040. 2020 2030 2040 2050 Total energy demand Electric vehicle registrations In the Net Zero -In the Net Zero -Remaining gas Hard-to-decarbonise of c. 14,000 GWh. continue to accelerate, with Electrification Hydrogen scenario, boilers are replaced HGVs, agricultural split between gas, over 200,000 in the 2020s. scenario, heat 40% of on-gas machinery and by hydrogen boilers, electricity and homes are heated pump uptake rates heat pumps or shipping switch to petroleum. hit over 10,000 per by hydrogen by biofuels. low carbon fuels, 2040. year. Heat pumps installed in such as hydrogen, Total demand has off-gas and new-build homes. Total energy demand biofuels and decreased 7% since No gas boiler connections in Investment in local heat zones falls as low as electricity. 2010. new homes after 2025. 7,500 GWh by 2050. Hydrogen, heat pumps, and heat networks. Only EPC C Decision UK ban on Wytch Farm Over 80% low-carbon minimum for Energy making sales of new Oil Field of vehicles heating and all possible process on planning fossil fuel are electric demand transport buildings by local heat expires in vehicles vehicles remain 2035 zones 2037



? : Bradninch Court, Castle Street, Exeter, EX4 3PL



### Retrofit

# Jason Hawkes Magna Housing



#### Retrofit & Magna

About Magna

History and context

SHDF and PAS standards

Considerations

Challenges

Opportunities





#### History





#### ...and burnt fingers



## magna

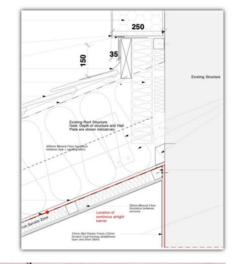
### Unintended consequences



Poor detailing



Poor spec





Robustness



Lack of ventilation assessment





#### PAS2030 and PAS2035

- Umbrella standards for managing retrofit
- Requirements and accreditation
- Better QC and QA
- Better outcomes
- PAS 2035 covers how to assess dwellings for retrofit, identify improvement options, design and specify Energy Efficiency Measures (EEM) and monitor retrofit projects. Meanwhile, PAS 2030, which was redeveloped in conjunction with PAS 2035, covers the installation, commissioning and handover of retrofit projects





#### **Process**

- Retrofit Assessor site visit
- Retrofit co-ordinator/ designer responsibilities:
- I. Energy Performance
- II. Ventilation strategy
- III. Insulation and moisture movement strategy
- IV. Airtightness strategy
- V. Heating Strategy
- VI. Statutory approvals
- Specification
- PAS2030 installation
- Commissioning, handover and evaluation





- Magna has 8,300 homes
- Advantage SouthWest members have c.150,000
- The South West has 2 million+ homes
- Within ASW, we need to retrofit 115 homes per week for 25 years.....
- .....to Net Zero Carbon standard

Additional 350,000 FTE needed by 2028 (CITB)

Measure	Magna	ASW extrapolated	
Solid wall insulation	6,800	119,000	
Cavity fill	3,000	53,000	
Solar PV	4,000	70,400	
Floor insulation	3,900	69,000	
Heat pump	6,000	106,000	
Community Heating system	700	12,300	
Loft top-up	2,900	51,000	

There are 3 companies based in the SW that can do EWI to the latest standards.

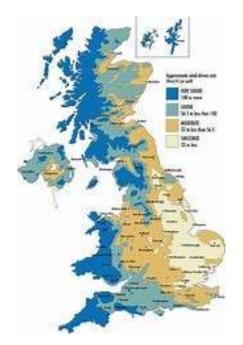
One employs 12 people, the other two; 5 each





#### Considerations

- Residents
- Existing and future programmes
- Funding
- Regulations
- Stock profile







#### Challenges

- Skills and accreditation
- Supply chain
- Infrastructure
- Climate change
- Fuel Poverty
- Damp & Mould





#### Opportunities

- Funding is available- ECO4, HUG, LEAP
- Opportunities for businesses
- Opportunities for individuals
- Opportunities for communities





## Roof Top Solar

# Rupert Hardy CPRE



# Q&A



## **COMING UP**

Main Hall Panel Presentations	Magistrates Room Workshops	COP Café / Speakers Corner	Council Chamber Workshops
13.00 – 14.00	13.00 – 14.00	13.00 – 13.30	13.00 – 14.00
Youth Activism	Engaging the Disengaged	Open Mic 1	Open for informal networking / lunch
		13.30 – 14.00	
		What's going on in Dorchester	

