

MUIRHALL ENERGY



THE ENERGY TRANSITION AS A DRIVER FOR
ECONOMIC DEVELOPMENT

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Introduction

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Economic

► Opportunities

Contribution of the Energy Sector to
the Economy

Contribution to the UK Economy

► Low Carbon and Renewable Energy Economy turnover was £69.4 billion with 272,400 FTE employees in 2022, with the low-carbon electricity group within that increasing 53% between 2021 and 2022.

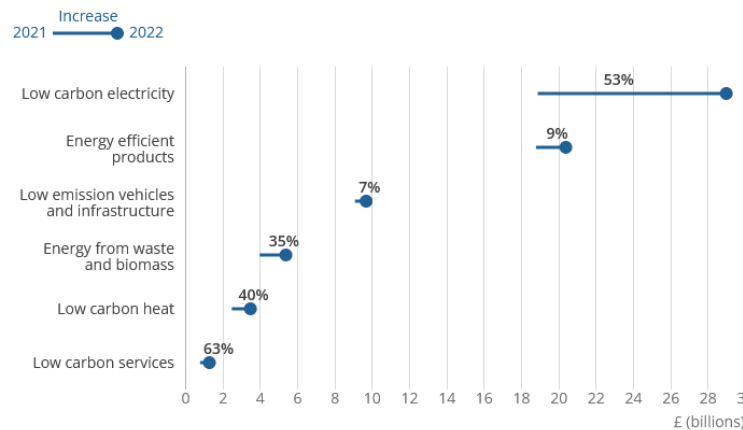
Table 1: UK low carbon and renewable energy economy turnover was £69.4 billion, with 272,400 FTE employees in 2022

LCREE turnover and full-time equivalent (FTE) employment estimates (with confidence intervals), UK and constituent countries, 2022

	Turnover (£ billions)			Employment (FTE)		
	Estimate	Lower CI	Upper CI	Estimate	Lower CI	Upper CI
UK	69.4	65.8	72.9	272,400	247,600	297,100
England	51.4	48.4	54.5	230,600	206,200	254,900
Scotland	13.0	11.5	14.5	25,700	23,200	28,100
Wales	3.4	3.0	3.7	11,000	9,600	12,400
Northern Ireland	1.6	1.3	1.9	5,200	4,100	6,200

Source: Low Carbon and Renewable Energy Economy Survey from the Office for National Statistics

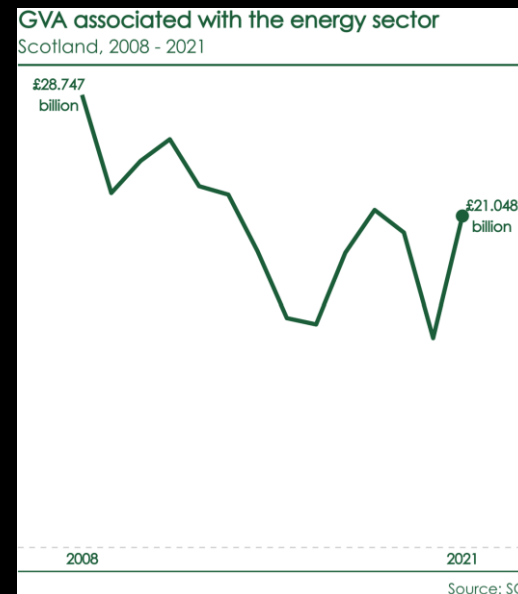
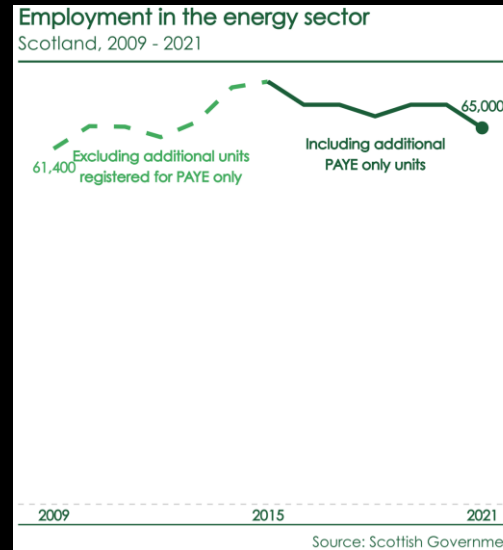
LCREE group turnover and percentage change, UK, 2021 and 2022, £ billions



Source: Low Carbon and Renewable Energy Economy Survey from the Office for National Statistics

Contribution to the Scottish Economy

► Total turnover for the Scottish Energy sector was £43.1 billion in 2021, up 27.5% in nominal terms on 2020. 65,000 people were employed by the sector in Scotland in 2021.

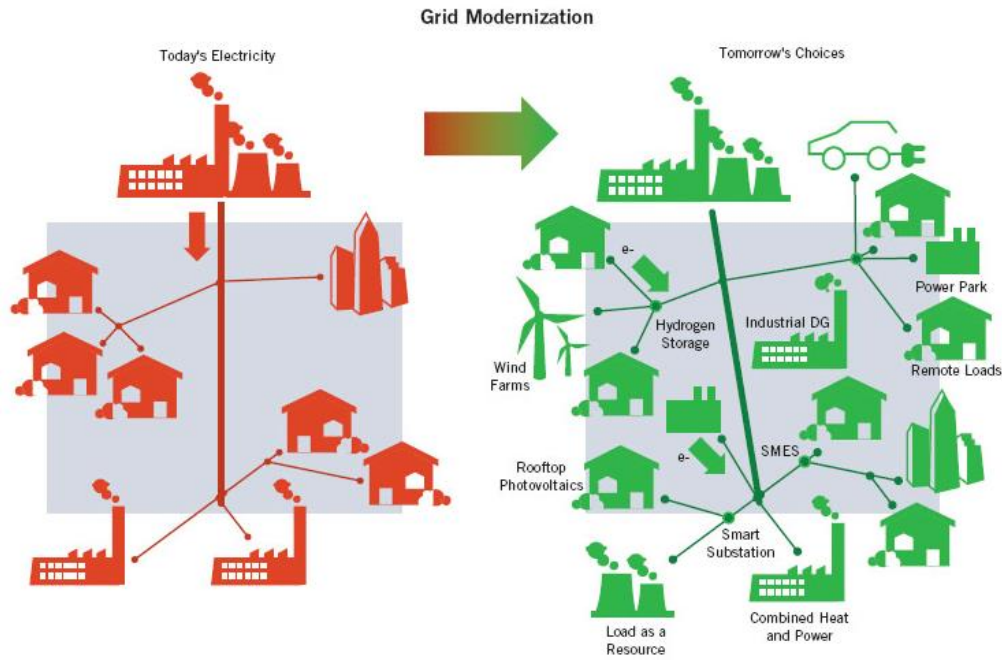


De-Centralising

- ▶ Economic Benefit

How can we deliver a truly just transition to a net zero economy?

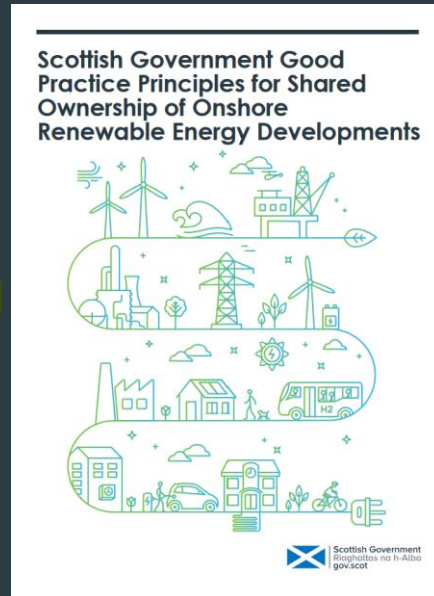
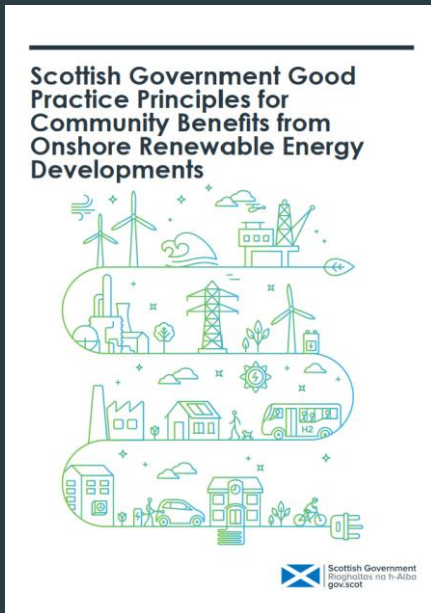
Moving from a Centralised to a De-Centralised System



- In the past electricity was generated close to centres of demand, as we move to a net-zero economy we're also moving to a decentralised grid.
- Learn from the recent past to ensure this next economic shift is a just transition to a net-zero economy and no one is left behind.

Guidance for the ► Energy Sector

Where are we now?



“We will engage with communities from the earliest opportunity possible in the project development cycle to agree a community package that will meet or exceed the principles set out in the Scottish Government Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments 2019 and the Good Practice Principles for Shared Ownership from Onshore Renewable Energy Developments 2019”

Scottish Onshore Wind Sector Deal 2023

The Muirhall

► Approach

Overall Commitments

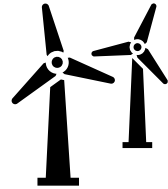
Four Pillars of the Muirhall Approach

Initial Investment Fund



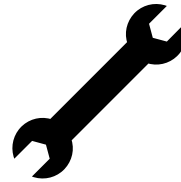
Fund in advance of wind farm commissioning for community projects

Community Investment Funds



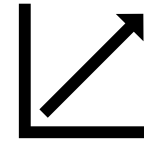
£7,000 per MW (index linked)

Local Supply Chain



If a local company bids within 10% of the cheapest bid, we will work with the local contractor

Community Shared Ownership



Muirhall offer up to 10% Community Shared Ownership on each project

The Muirhall

► Approach

Initial Investment Fund



Fund can be managed within the community directly, if they have capacity to do so, or managed internally by Muirhall.

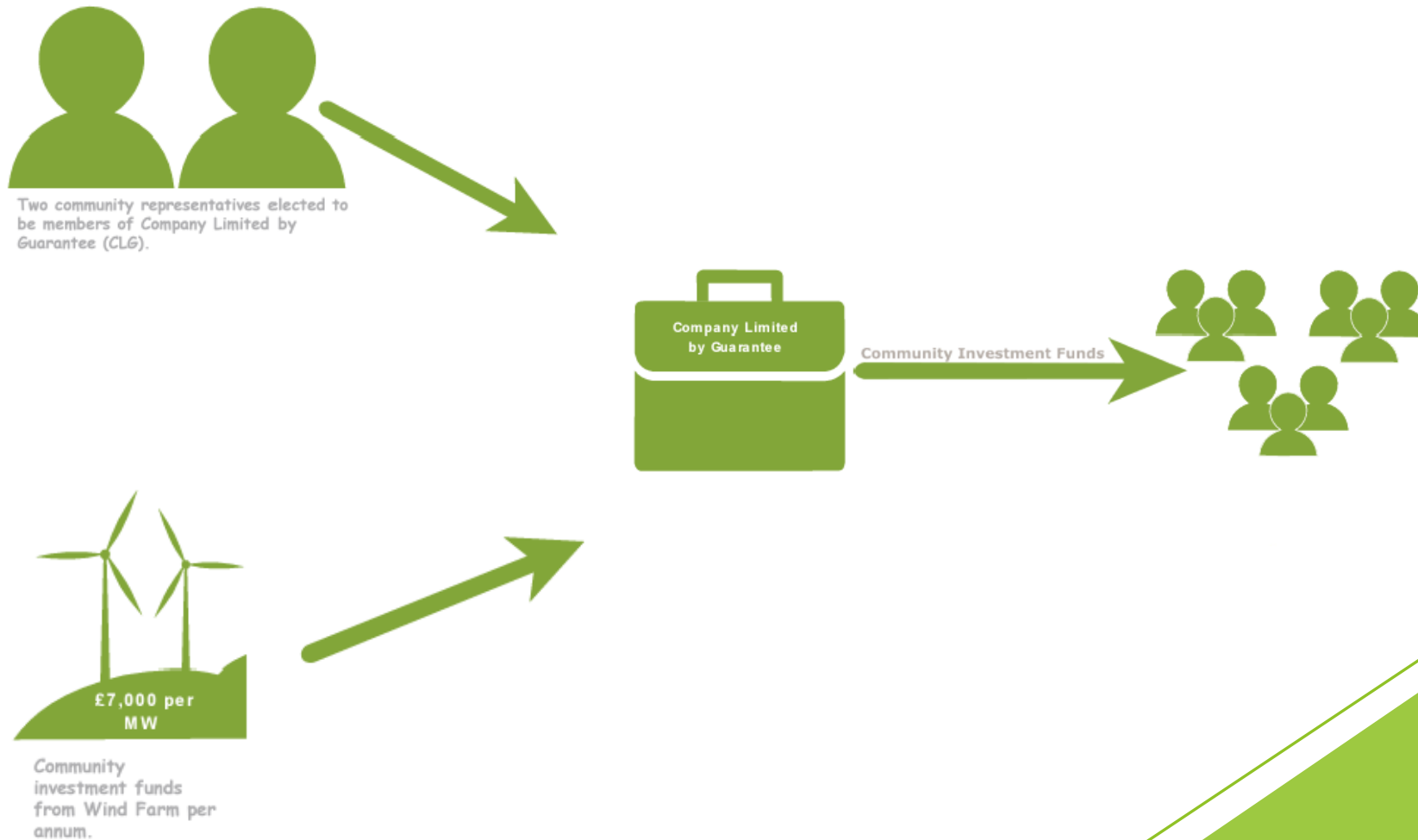


The Muirhall

- ▶ Approach

Community Investment Funds

Company Limited by Guarantee



Support and Advice



**Foundation
Scotland**



**Development
Trusts Association
Scotland**
A Thriving Community-led Network

The Muirhall

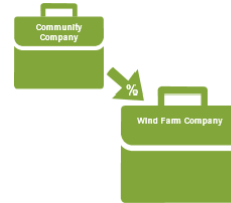
► Approach

Community Shared Ownership

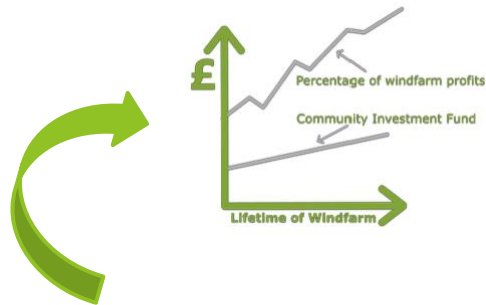
Shared Ownership: How it Works



1. The wind farm is constructed and begins generating electricity



2. The community buys shares directly in the wind farm company.



5. Community receives community benefit payments **plus** dividends from the wind farm

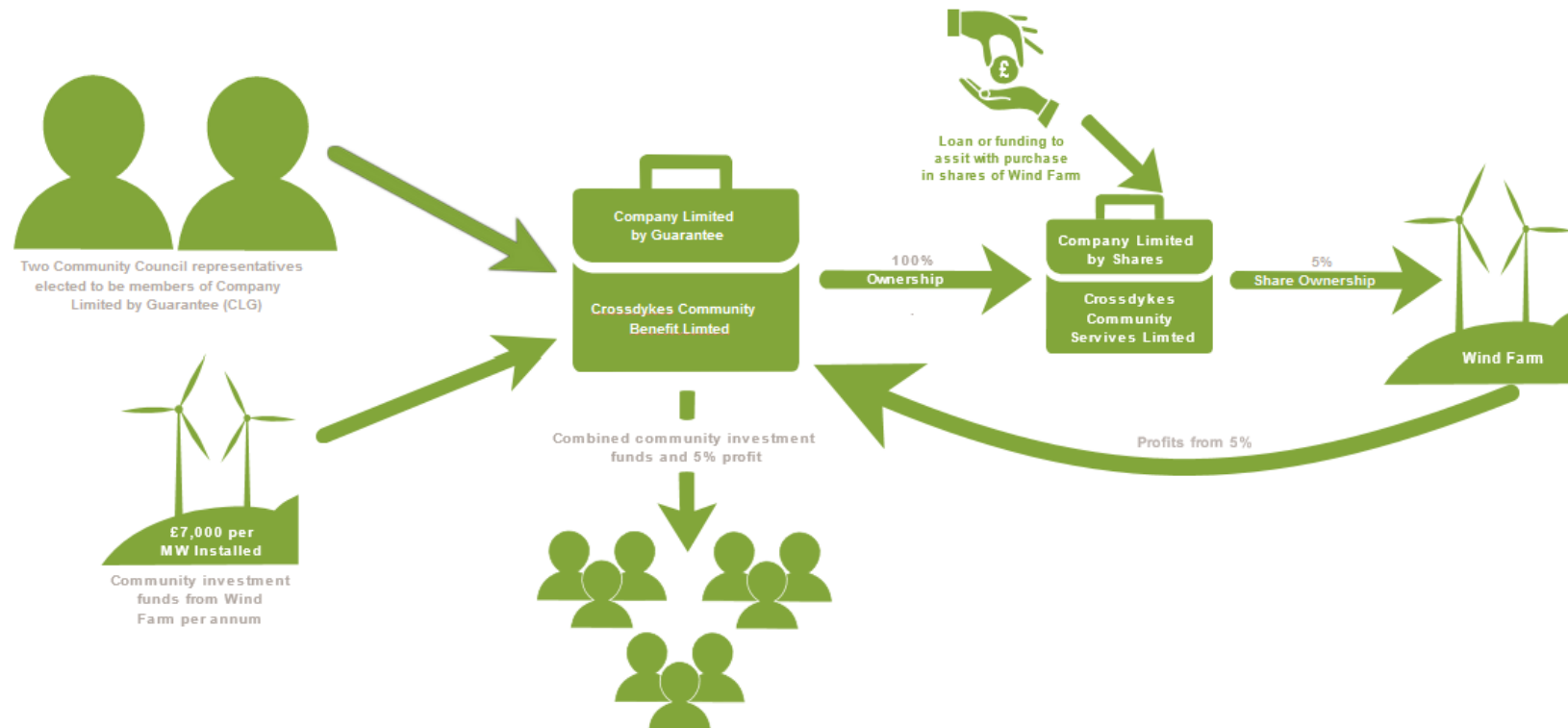
4. The community company allocates their share of the profit as they see fit.



3. The annual profits are passed to all shareholders, including the community company



Practical Example - Crossdykes



The Muirhall

► Approach

Quarterly Funding Panel

The Muirhall

► Approach

Education and Skills

College Engagement



16 Students completed the course over the last 24 months, replacing 3 standard school subjects. Completion of the course awards the student with industry recognised qualifications to pursue a career in the renewables sector.



Many students have gone on to study civil engineering at either college or university. Some students have found different inspiration from these courses, and are now exploring careers in areas such as health and safety, communications, environmental engineering and finance.

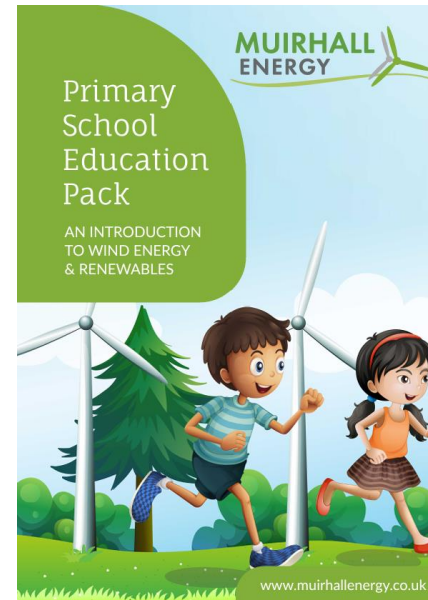


Over 50% of staff at Muirhall presented to students at Borders College throughout the delivery of this course. It was imperative to Muirhall that we gave students a realistic overview of the renewables industry, demonstrating a breadth of career opportunities within the sector.



Muirhall have invested £5,000pa into renewables education at Borders College for the last three years, contributing towards new equipment in the "Renewables Room" on campus.

Primary School Engagement





▶ The Future

What does achieving our 2030 targets look like?

Community Investment Packages to 2030 and Beyond



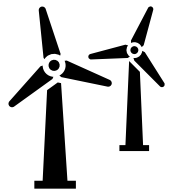
Economic Opportunities: Attracting Investment and Emerging Markets



High Energy Users



Infrastructure Investment



Emerging Markets

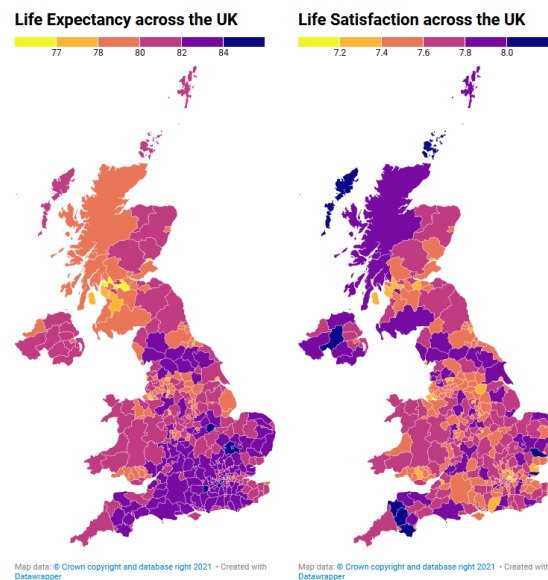


Project Investment

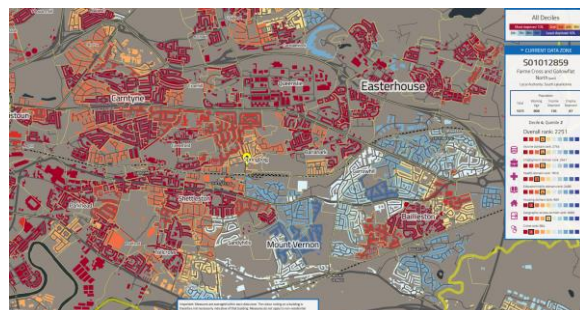
Widening Areas of

- ▶ Benefit

Is this a just transition to a net zero economy?



Biggar's mapping of WELLBYs



Scottish Index of Multiple Deprivation

Invest in the most
deprived
Communities
Nationally

Invest in
Communities Close
to Wind farms

Depopulation

Urban centres
won't ever have
a wind farm

Legacy of a lack
of investment

Areas of greatest
deprivation

Greater impacts
from construction
and operation

Community-

- ▶ Directed Growth

How can we support communities to deliver on their economic and social aspirations?

Community Wealth Building



A Fair Deal for Scottish Communities

Community Action Plans





Economic Support ▶ for Communities

Tackling the Housing Crisis



Partnering with a Social Housing Provider

- ▶ This could be both new build or retrofit, depending on the needs of the Housing Association.
- ▶ Housing the construction workforce for a wind farm development.
- ▶ Potential to secure long-term commercial investment



Integrated Social Care

- ▶ Biggar work looked specifically at Scottish Borders
- ▶ There are significant and recognised improvements in patient outcomes when family can visit regularly
- ▶ Higher energy users than the average domestic dwelling



Economic Support ▶ for Communities

Connectivity



Transport Infrastructure

- ▶ Upgrading roads and access
- ▶ EV Charging
- ▶ Rail upgrades

Broadband Infrastructure

- ▶ R100 not delivering fast enough
- ▶ Crossdykes Wind Farm
- ▶ Glen Ullinsh II Wind Farm



► Fuel Poverty

The role of the energy sector in
tackling fuel poverty

Short-Term: Local Energy Discount Schemes

- ▶ The RES Local Energy Discount Scheme
- ▶ The Octopus Fan Club





Long-Term: Homes for the Future

- ▶ Energy efficiency - insulation etc
- ▶ Domestic renewables - solar panels, heat pumps, batteries

Education and

► Skills

Improving prospects and developing
the workforce of the future

STEM in Schools and Colleges

Primary Schools

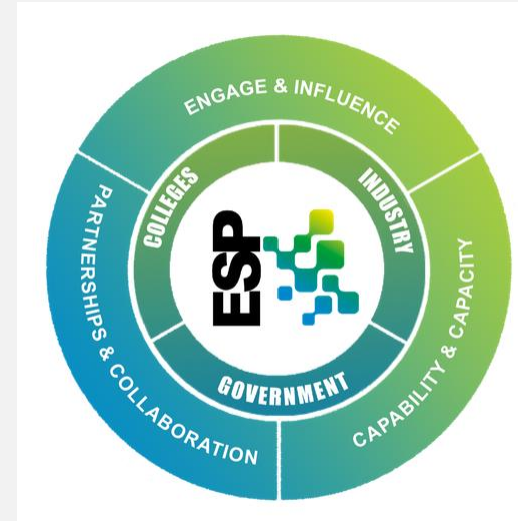
- ▶ Girls outperform boys overall for the majority of primary school but damaging gender stereotypes start to be seen in the last few years of primary school

Secondary Schools

- ▶ When secondary school pupils were asked what subjects would lead to the highest paid jobs the majority (69% of boys and 51%) of girls picked a STEM subject
- ▶ When the same group of pupils were asked which subjects they were best at 60% of boys picked a STEM subject and only 33% of girls

Further and Higher Education

- ▶ Only 35 out of every 100 students of core STEM subjects are women



Conclusions and ▶ Discussion

What are the next steps?



► Thoughts?

Discussion and Q&A