

# SEE?

## Sustainable Energy Eden Workshop 2

.....the art of the possible!

Funded by:



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Welcome

Richard Greenwood

Cumbria Energy Associates



# Agenda

- **SEE? Project Update** Richard Greenwood
- **Renewable Heat Incentive** Cumbria Woodlands
- **Video 1- Community Biomass Scheme** Simon Sjenitzer
- **The Green Deal** Oliver Shimell
- **Video 2– Community Wind Scheme** Simon Sjenitzer
- **Funding Options** Simon Sjenitzer
- **HoE Success**
  - 1. **Bolton Village Hall** Derick Cotton
  - 2. **Long Marton Village Hall** Derick Cotton
  - 3. **Bongate Hydro** Peter Emery
- **Questions & Wrap up** Richard Greenwood



# Project Update

## **SEE? Objectives**

- **To inform** the community and planning authorities about the potential for renewable energy schemes to reduce carbon footprint and generate income for communities.
- **To encourage** community participation in completing the questionnaire, with a minimum of 20% households or 10% of the population.
- **To publish** a report for the Heart of Eden Development Trust which recommends a series of prioritized community focussed actions



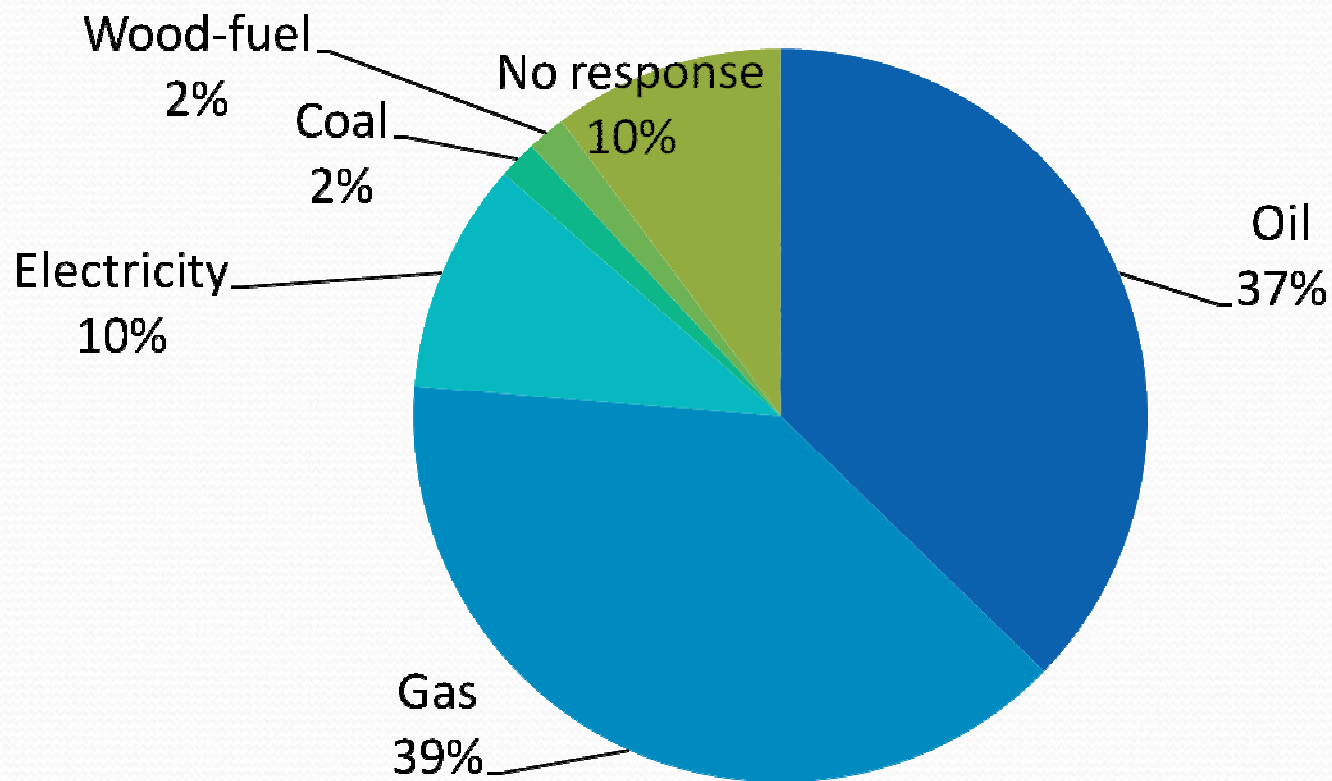
## SEE? Questionnaire results to date

- Over 200 individual responses so far
- Biggest single response from young residents
- Results suggest skew towards 'GreenGreys'
- Young residents are key to wider community
- Poor business input – lack knowledge or potential?



# Household Results 1

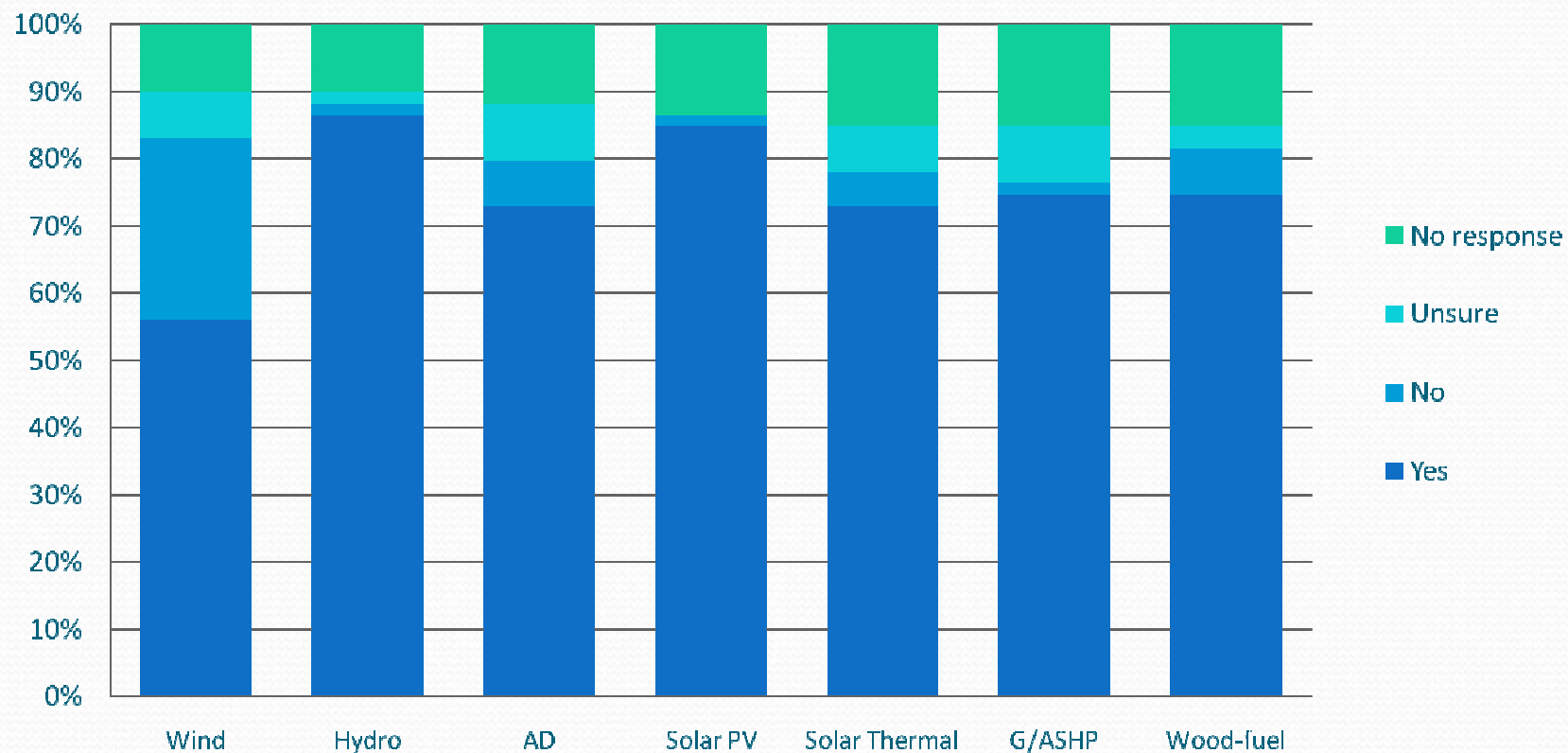
How is your home currently heated?





# Household Results 2

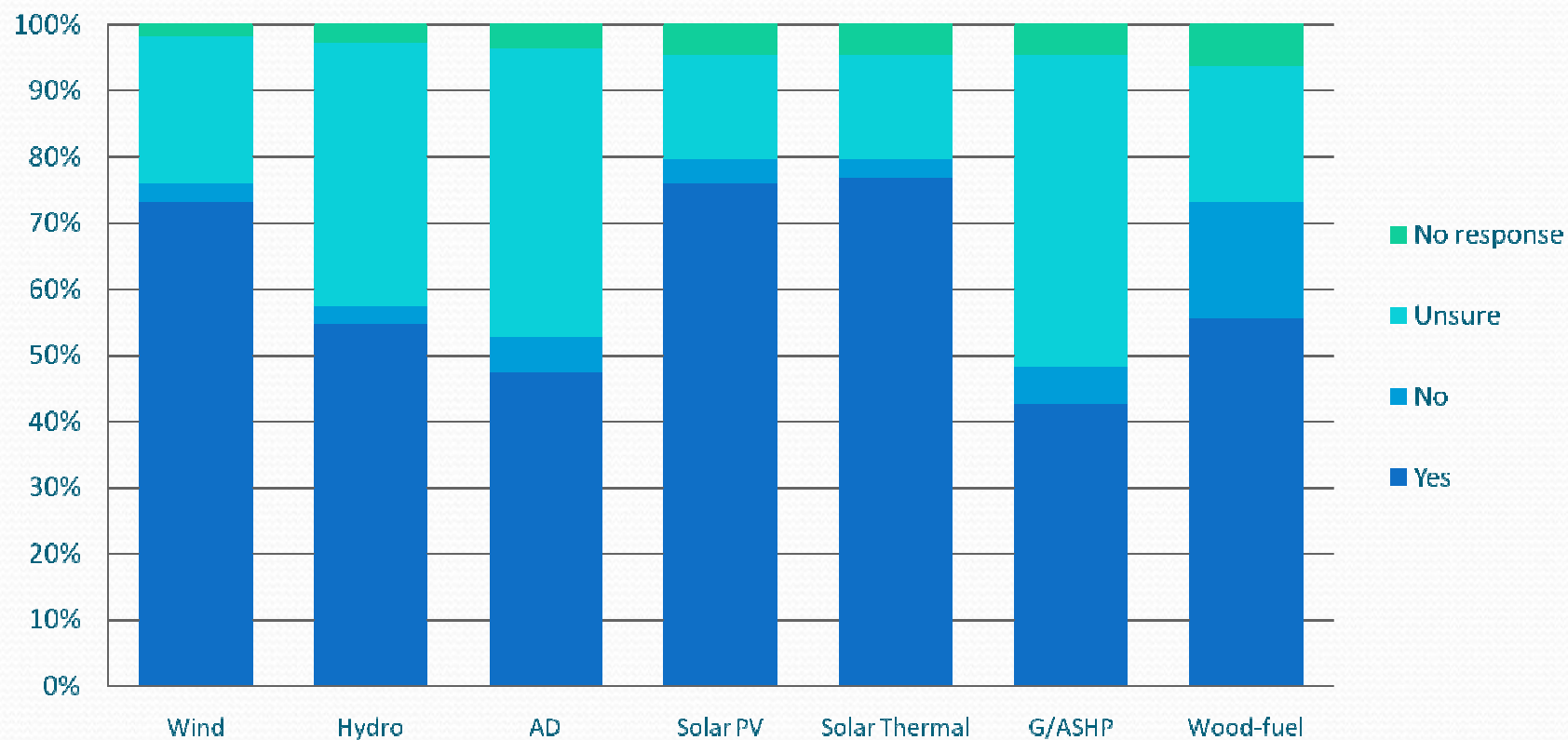
## Support for Renewable Energy Technologies





# Young Person Results 1

## Support for Renewable Energy Technologies

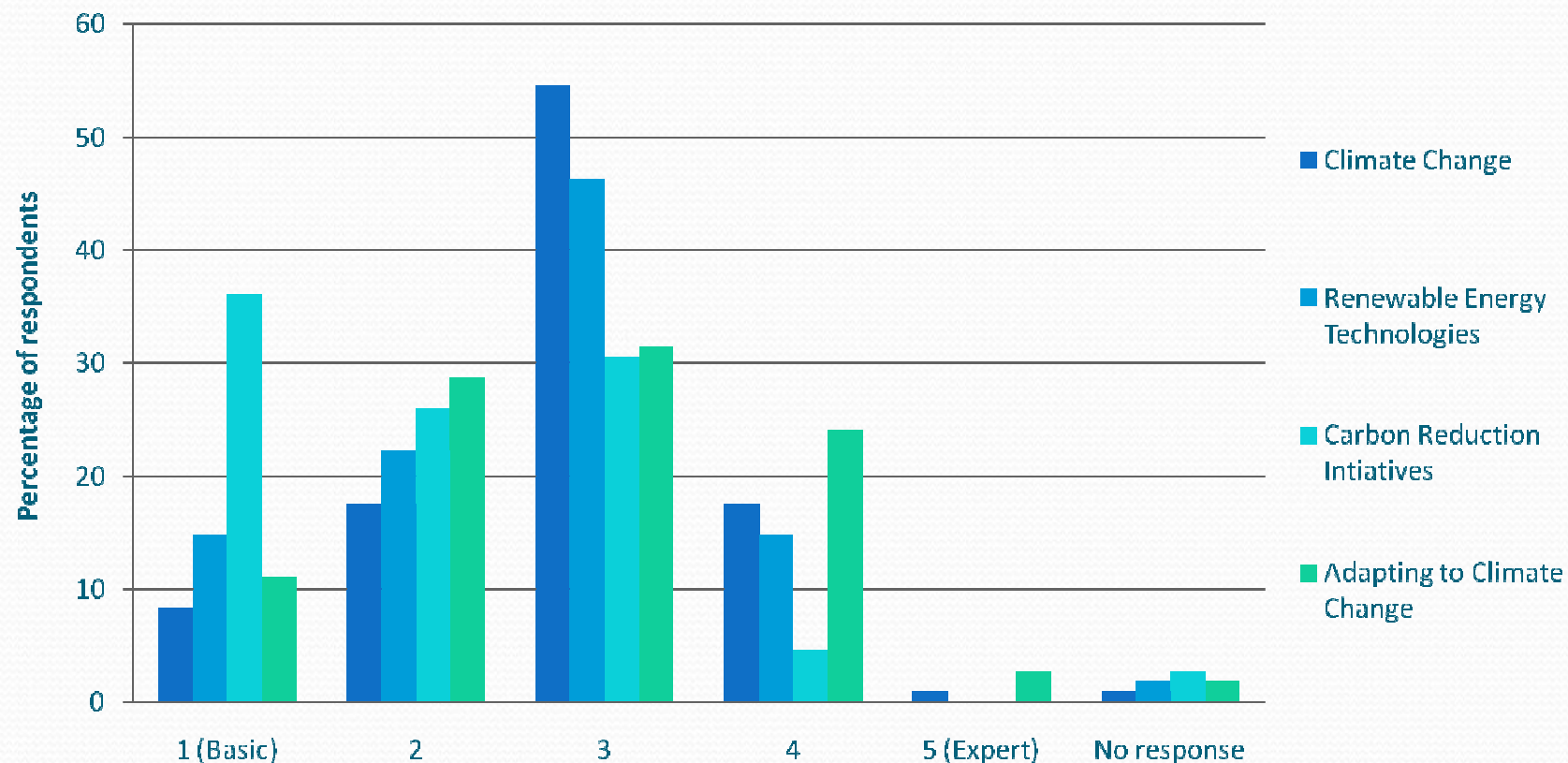






## Young Person Results 2

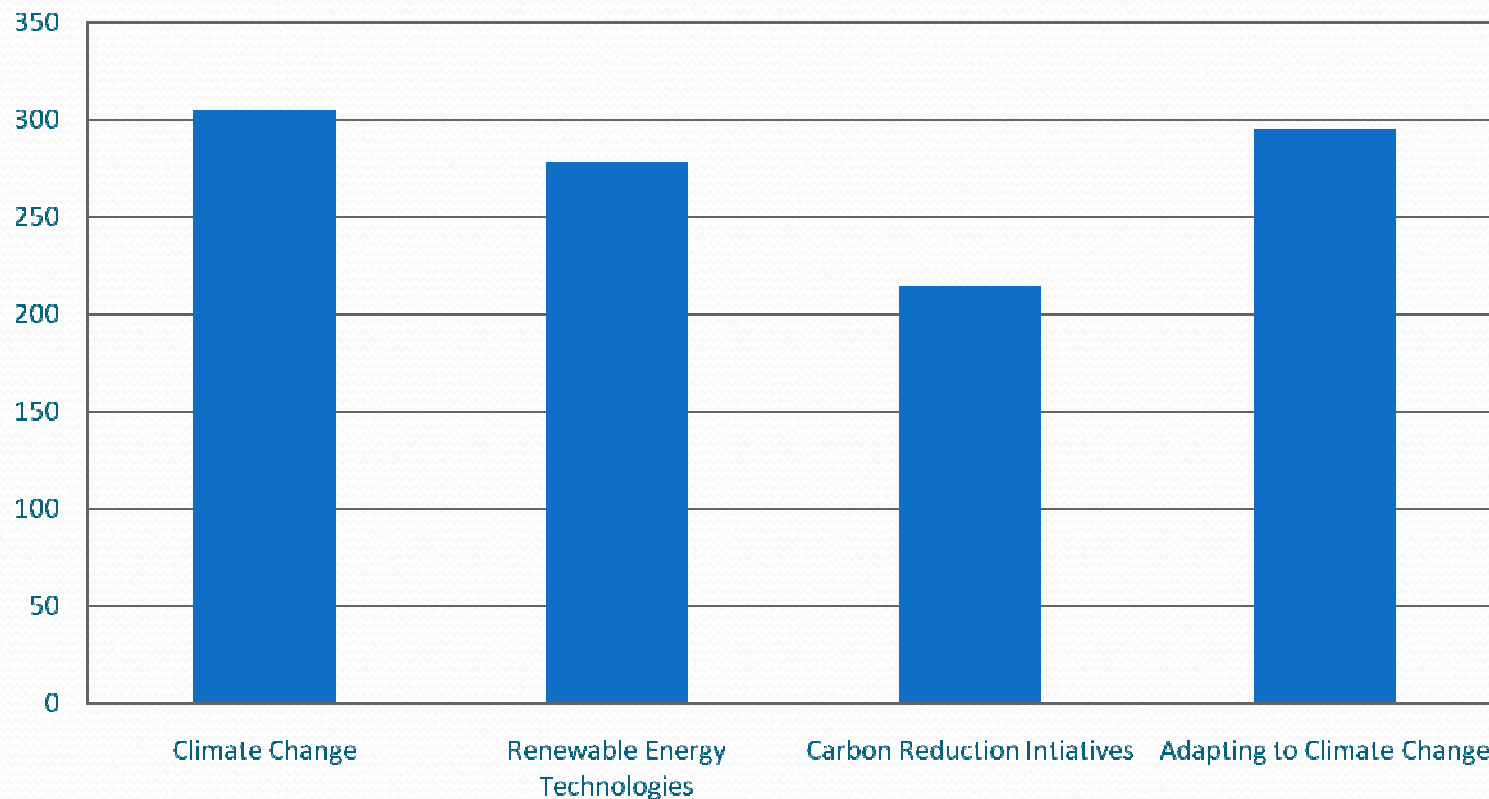
Current level of knowledge and understanding about...





# Young Person Results 3

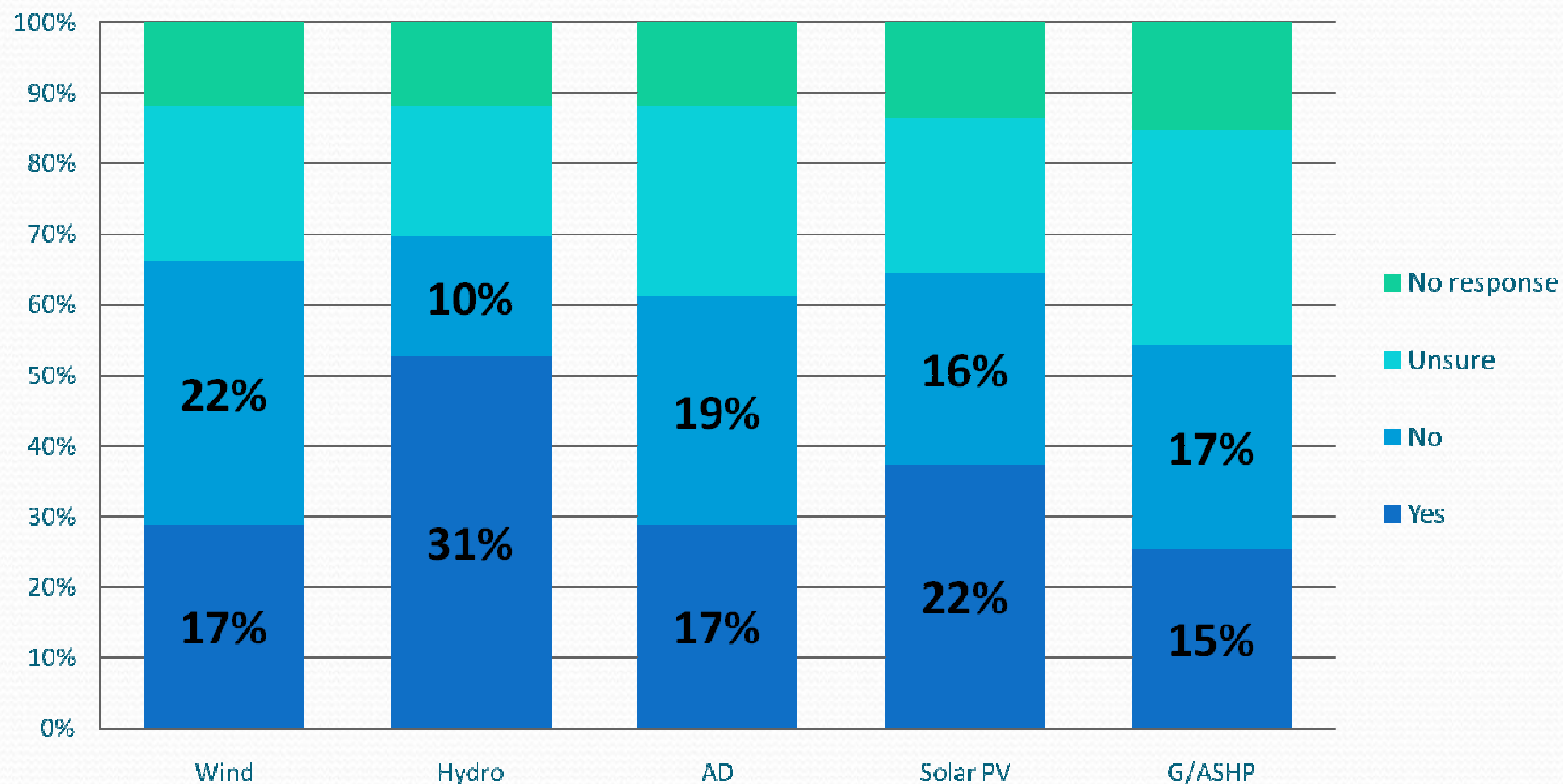
## Overall Awareness of Issues





# Household Results 3

Preparedness to invest in a community owned scheme





# Renewable Heat Incentive

Neville Elstone





## Confirmed original proposals

- Installations since 15 July 2009 eligible
- Long term support (adjusted for inflation) to compensate for:
  - Capex and opex of renewable heating compared to a gas fossil fuel alternative
  - Additional barrier and financial cost (assuming a 12% rate of return for a reference installation, apart from solar thermal);
- Support for technologies classed as renewable
- MCS for installations <45kW



## New policy

Two phase approach –second phase of the scheme from 2012

- Domestic included from 2012 –initial support through Renewable Heat Premium Payments
- Fewer technologies supported in phase 1 to allow further evidence gathering
- Two-tier tariff for biomass <1MW
- Funded from Government spending



# Phase 1 -technologies

## Eligible technologies:

- Ground and water source heat pumps (one tariff)
- Biomass
- Biogas combustion <200kW (including gasification and pyrolysis)
- Biomethane injection
- Solar thermal <200kW
- Geothermal (GSHP tariff)
- Energy from municipal solid waste (adjusted biomass tariff)
- CHP (support on the basis of heat only technology)



## Phase 1 –eligibility requirements

- All non-domestic or single installations heating multiple domestic premises
- Metering of all installations –heat has to be delivered through water or steam
- Useful heat in buildings (space, water or process)
- Sustainability reporting for biomass above 1MW
- MCS products and installers where applicable up to 45kW





## Phase 2

- Inclusion of domestic
- Consideration of further technologies:
  - Direct air heating (furnaces, kilns, ovens etc)
  - Air source heat pumps
  - Bioliquids
- Possible dedicated tariffs for:
  - CHP
  - Geothermal
  - Solar thermal and biogas combustion >200kW
- Emissions limits for biomass boilers



## Next steps

- Draft regulations open for comment until 5 April
- Clearance through Commission –state aid and technical standards
- Aim to get through Parliament in July and open for applications with Ofgem thereafter
- Consult on Phase 2 proposals autumn 2011
- Draft regulations spring 2012
- Launch Phase 2 RHI autumn 2012



## Case study





Estimated costs and Savings	
Estimated annual cost of oil (£)	£3,480
Estimated annual cost of logs (£)	£500
Estimated annual saving on fuel (£)	£2,980
Payback (years) – No grants or financial incentives	4.2 years
Payback (Years) - when in receipt of RHI Premium Payment	3.9 years
Payback when in receipt of RHI (payable from Oct 2012)	1.8 Years

RHI payment of 7.6p for the first 39,420kWh reducing to 1.9p up to 60,000kWh. Annual payment in the first year £4,175.34



## Further information

- [www.decc.gov.uk/rhi](http://www.decc.gov.uk/rhi)
- Policy document
- Draft regulations
- Cumbria Woodlands offer

Many thanks!



## Video 1 – Community Biomass Scheme



## The Green Deal

Oliver Shimell

Policy Officer – Eden District Council



## What is the **Green** Deal?

- Energy efficiency improvements are offered to householders (and businesses) with no upfront costs.
- The 'Payback' – through your normal energy bills
- Golden Rule: 'Estimated savings on bills will always be equal or exceed the cost of the work'
- 'Debt' attached to property rather than individual





## How will it work?

- Property is assessed by an accredited advisor
- Measures will be recommended
- Green Deal provider who makes an offer which stipulates:
  - the total cost,
  - the charge to be attached to the energy meter
  - the length of the repayment period
- You either agree or disagree with the plan
- If agreed, an accredited installer installs the measures
- Green Deal provider notifies energy supplier and updates register



## When will it begin?

- Officially to be launched in 2012
- For the Heart of Eden Area possibly now...

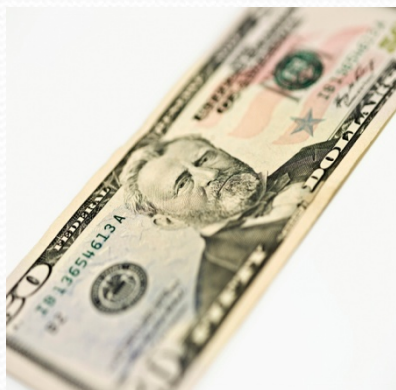
## Questions?



## Video 2 – Community Wind Scheme



# Funding Options for Communities



Simon Sjenitzer

Cumbria Energy Associates



## Self Finance

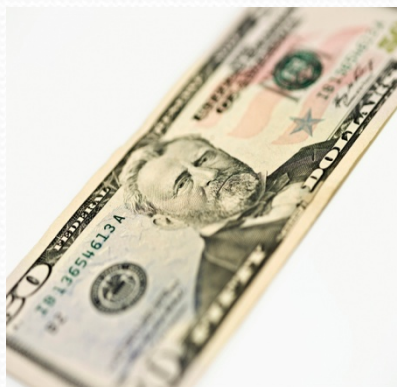


- What are your savings currently doing?
- Current bank rates
- More appropriate to private domestic installations

We'll come back to this one in a bit.....



## Grants



- It's a different world!
- Some RDPE funds left
- Check energy companies – EDF, EON
- Enerlyshare



## Banks et al.



- The Co-operative Bank
- Triodos Bank
- NW Fund



# Community Share Scheme



- Same as self financing, but on a community scale
- Define the Community as an onion
- Cumbria Community Renewable Fund





# Heart of Eden Success

**Derick Cotton**

Bolton & Long Marton Photovoltaic Panels



MEMORIAL  
HALL  
ERECTED 1918









## Site Requirements

Suitable elevation – ideally Southerly

Suitable roof – size, strength, structure, unshaded

Accessible – scaffolding, electricity supply

Permissions

Funding



# Permissions

## Planning

Site identification, building/project dimensions, Design and Access statement, Drawings/photos, Fees – n.b. Parish Council discount

## Listed Building Consent

All the above but free, Heritage Statements

## Management /Trustee Approval



## Quotations

Sundog, Flusco

Love Solar, Appleby

Keswick Superglaze

Renewable Solutions, Merseyside



## Love Solar Quote – after negotiation

- 18 Black 185 watt panels
- 3.3 K Watt covering 21.6 square metres
- Cost £14,111.60 including 5% VAT
- Projected annual generation 2,632 KWh
- Annual FIT return @ 41.3p = £1,087
- Export @ 50% @ 3p = £39
- Electricity bill saving = £184
- Payback period 10.8 years

**Index linked so  
now.....**

42.3p = £1,113

3.3p - £43

+8% - £200

10.4 years

# Monthly generation predictions



January	90
February	142
March	225
April	297
May	370
June	341
July	354
August	306
September	247
October	166
November	103
December	61
Total	2,700 Kwh

23711



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APPLEBY  
SCAFFOLD  
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017683  
53206



S386 GNW



# Heart of Eden Success

**Peter Emery**

A Hydro Scheme somewhere in Appleby.....



Questions and wrap-up!

Richard Greenwood

Cumbria Energy Associates