

Community Renewables in Practice:

The View from HICEC

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All Energy 2007





Community Renewables –
Why Bother?

The HICEC Experience –
Achievements and
Challenges

The Future



Who, what are we?



Company Limited by Guarantee with voluntary board

HIE subsidiary

Free advice

SCHRI and HICEC Grant and BLF Growing Community Assets

Why Bother?

- most people live in a 'community'
- most people use community facilities of one sort or another
- community facilities and projects have a high profile
- cost-effective way of raising awareness: $700 \times 150 = 105,000$



Why Bother?

- 44,000 voluntary groups in Scotland
 - 100,000 employees, 600,000 volunteers, £2bn annual
 - active in all areas of social and political life
 - major social benefits in Scotland– significant influence
 - can be the key advocate for sustainable energy
 - basis for decentralised energy development
 - needs all the help it can get to reduce energy costs, carbon
- agents for change at community level eg:*



Why Bother?

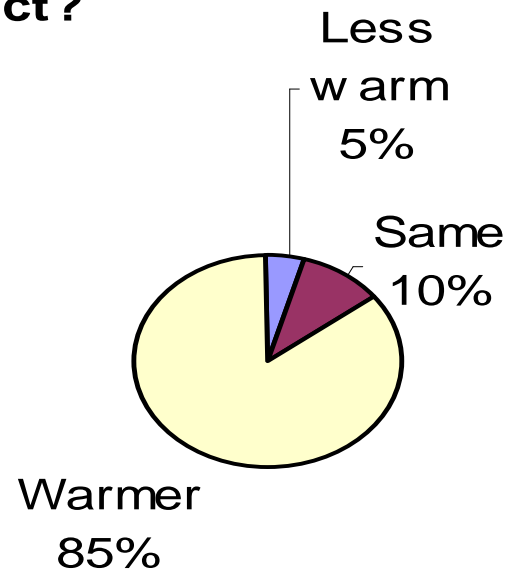
From our recent monitoring and evaluation survey (sample of 60 renewable energy installations):

- 92% of respondents said the project had been a positive demonstration and should be replicated.

Why Bother?

From our recent monitoring and evaluation survey (sample of 60 projects):

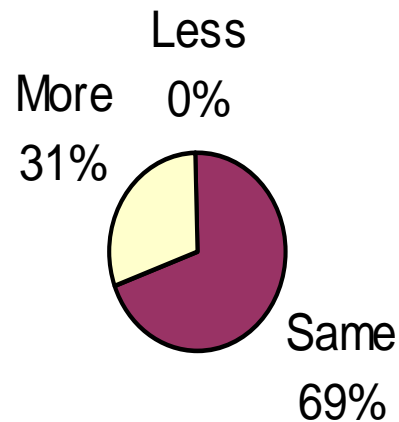
Q4. If the project provides heat energy output, is the facility warmer as a result of the project?



Why Bother?

From our recent monitoring and evaluation survey (sample of 60 projects):

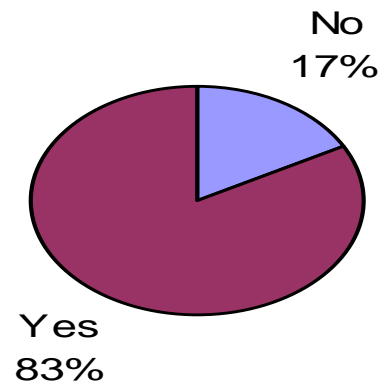
Q3. Has there been a change in the number of people using the facility as a result of the project?



Why Bother?

From our recent monitoring and evaluation survey (sample of 60 projects):

Q34. Has your project generated much positive interest in renewables amongst the local community?





Why Bother?

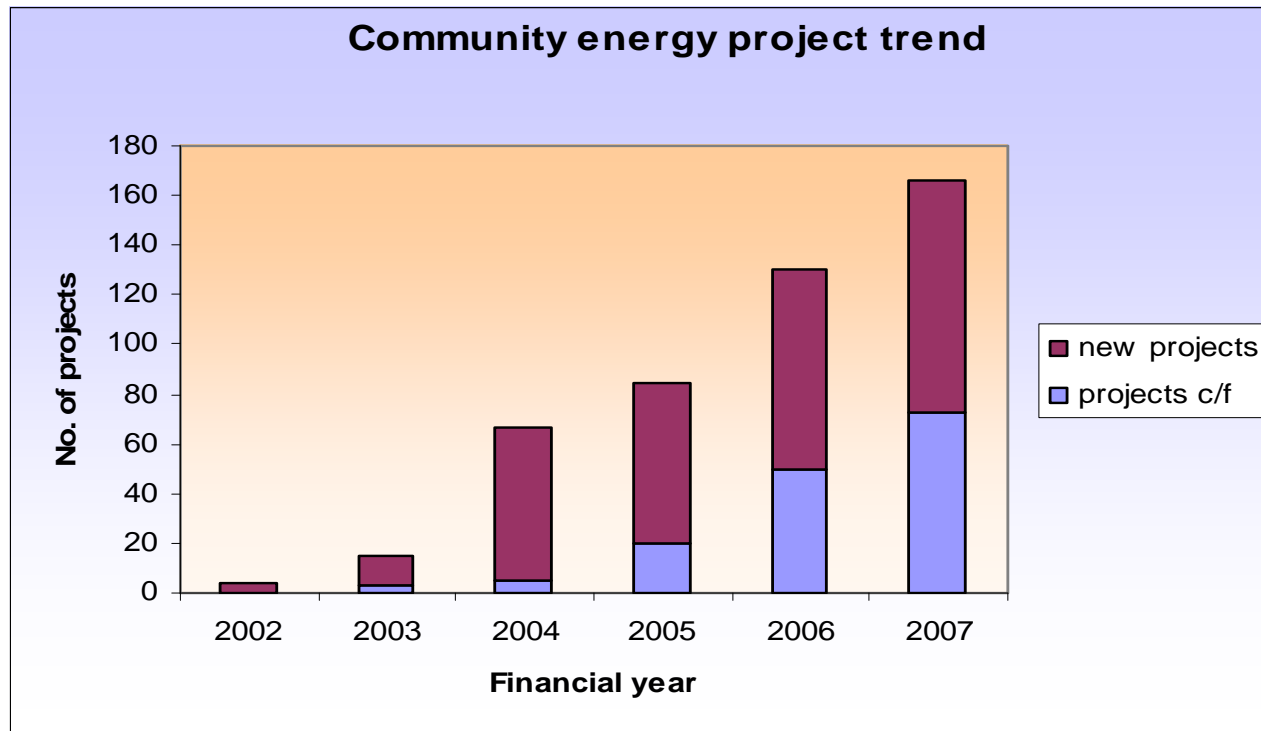
Way to go

3% community groups in H+I

1% in Scotland

The HICEC Experience – Overall Picture

Rapidly increasing interest





The HICEC Experience – Overall Picture

Micro and larger scale – a picture of achievements and challenges

The HICEC Experience: Micro

System	Feasibility	Number
Wind turbines – W2H	yes	50
Wind turbines - revenue	yes	28
Heat pumps	yes	38
Solar water heating	yes	31
Hydro	yes	5
Biomass	yes	21
Biofuel	yes- but	1
Solar photo-voltaics	yes -but	1
Marine - wave	no - but	0
Marine - tidal	no - but	0



The HICEC Experience



Wind2Heat





Biomass





Heat Pumps

“Our heat pump and under floor heating has saved us significant costs in heating our hall and it provides a constant room temperature and hot water, even for the public toilets, from a renewable source. What could be better than that?”

Clive Pearson, Glenelg Hall, 2005



Reduced running costs for community facilities



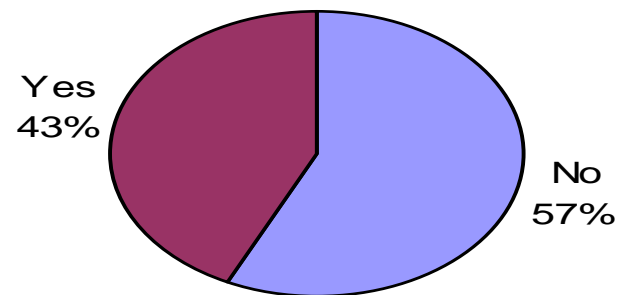
**Albyn Housing
Association, Alness
– solar water heating**



Whole Island grid -
Eigg

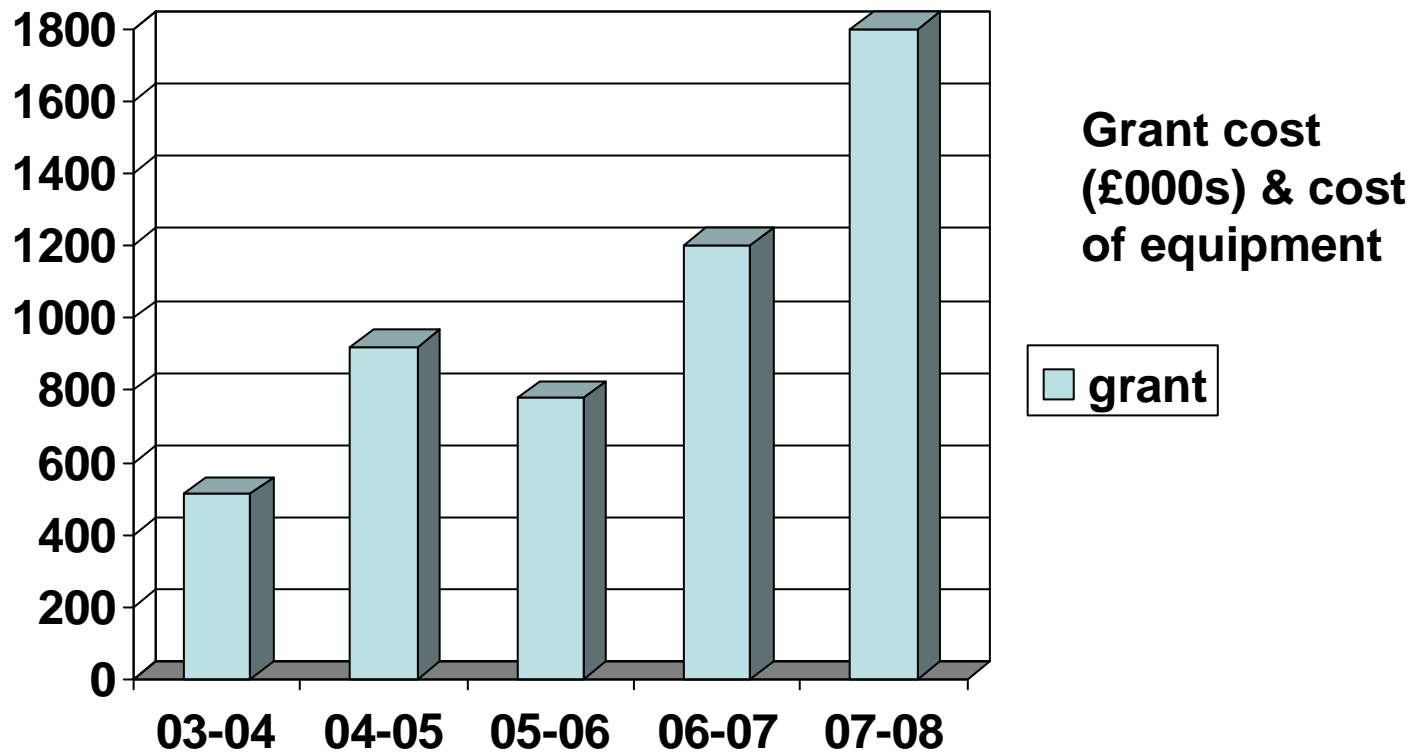
Challenges: Micro

Q26. Do you have low energy light bulbs fitted in all appropriate light fittings in the facility?

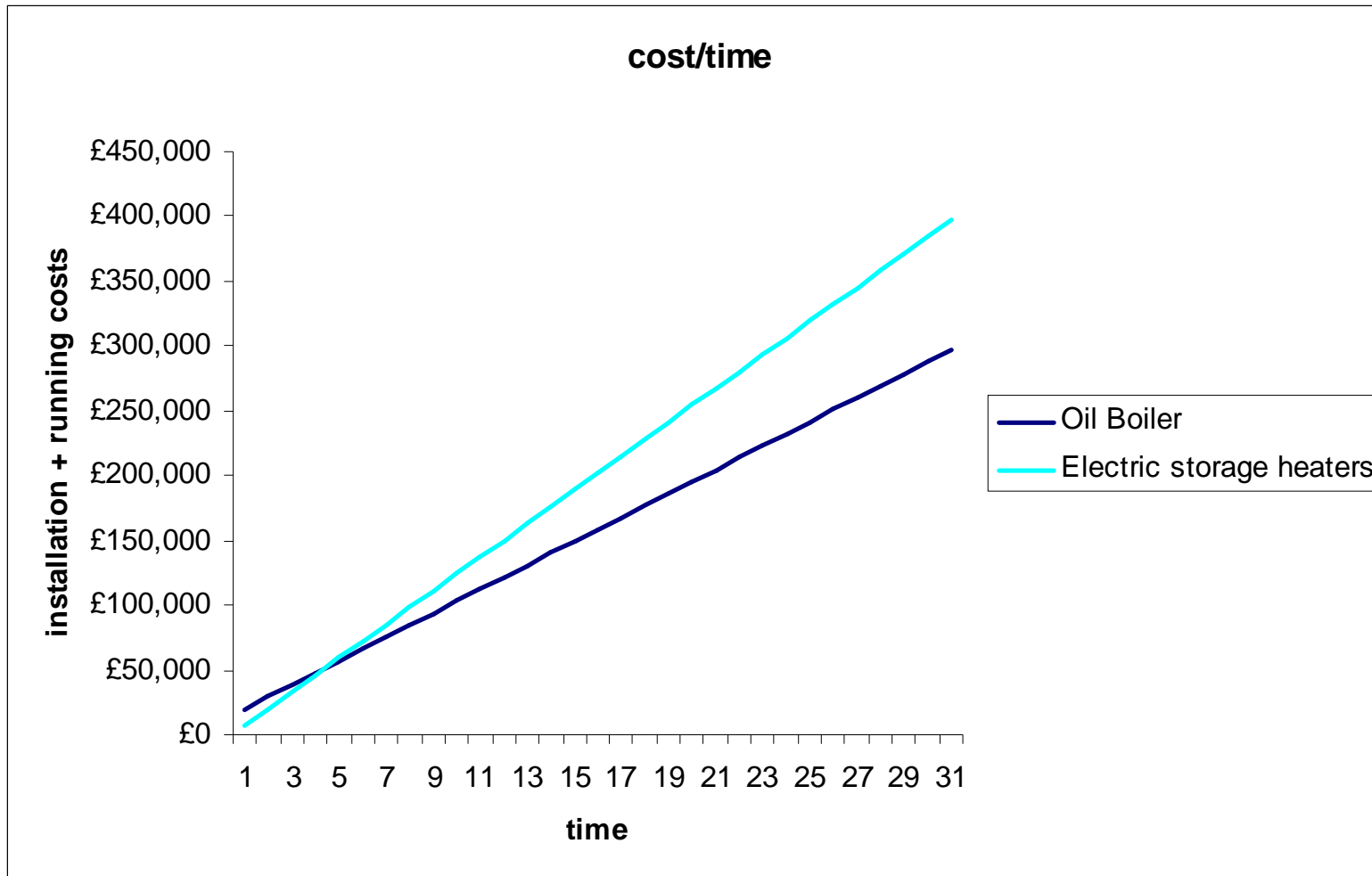


Behaviour

Challenges: Micro

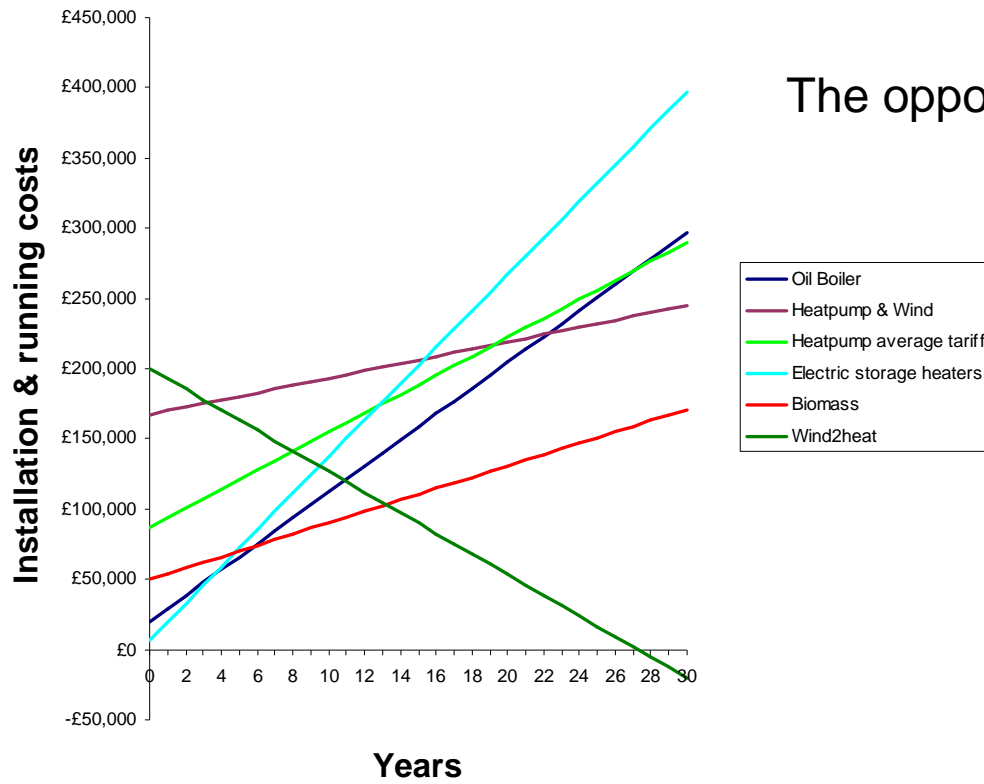


Challenges: Micro



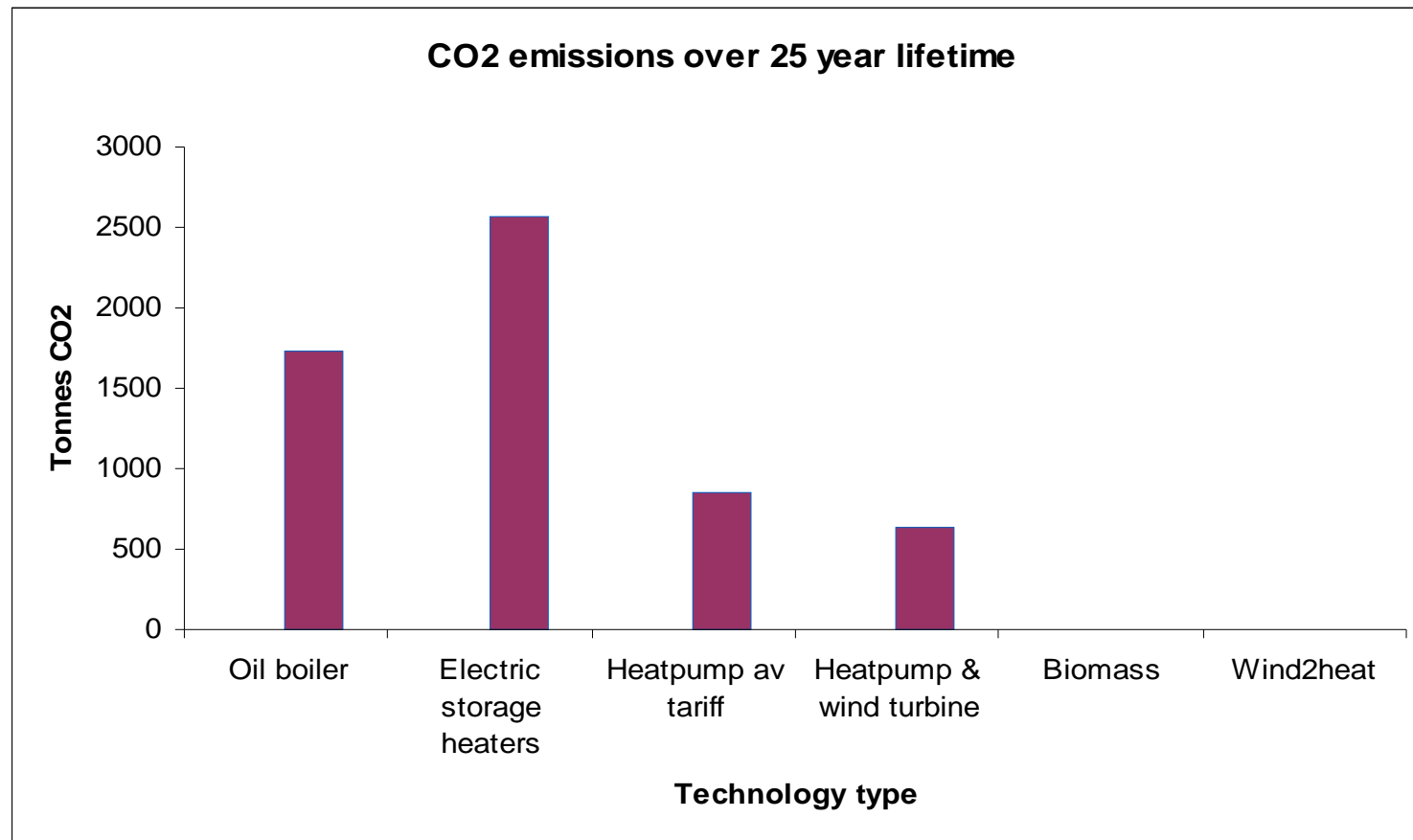
Challenges: Micro

Costs/time graph

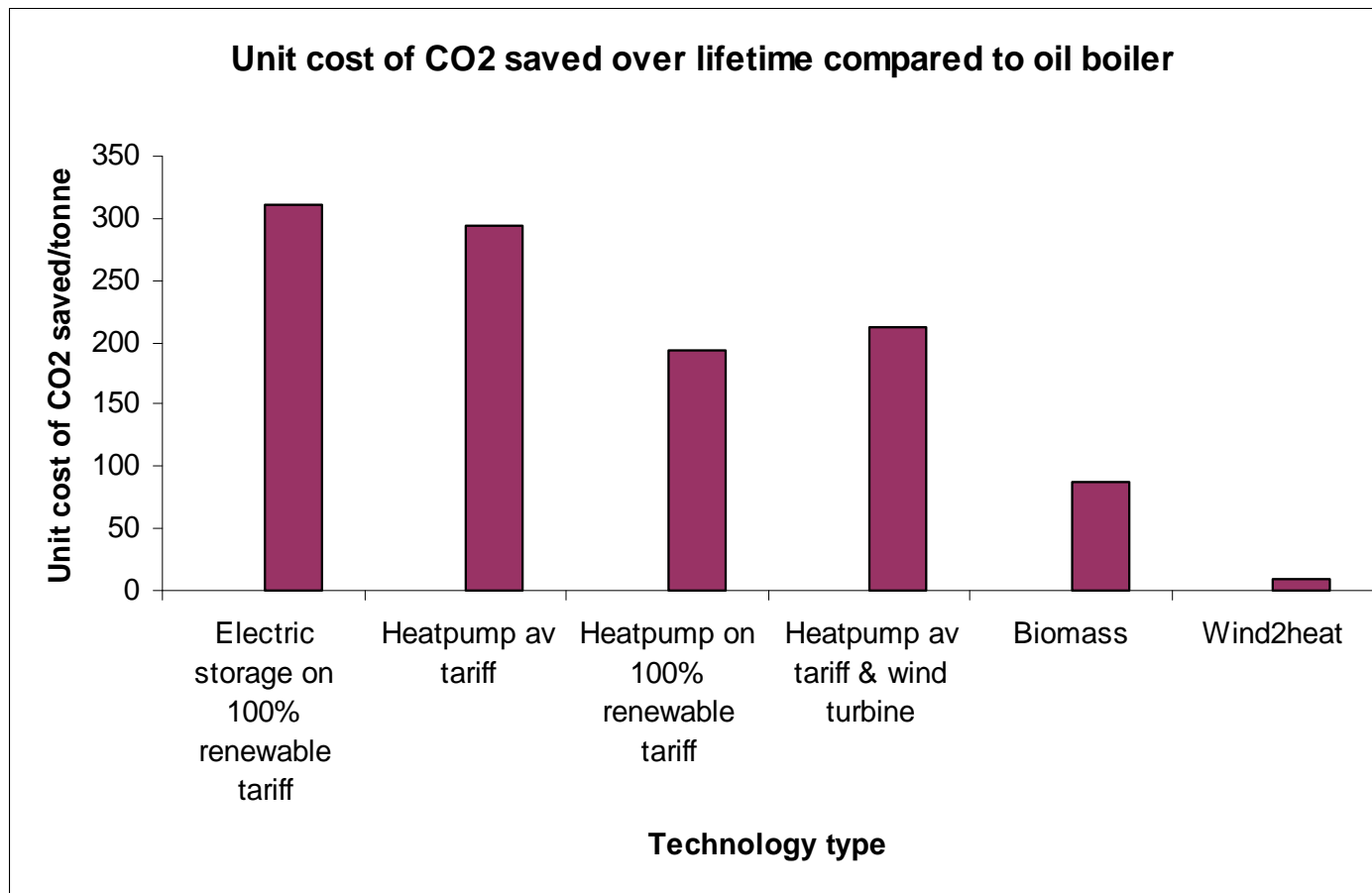


The opposite of discounting?

Challenges: Micro

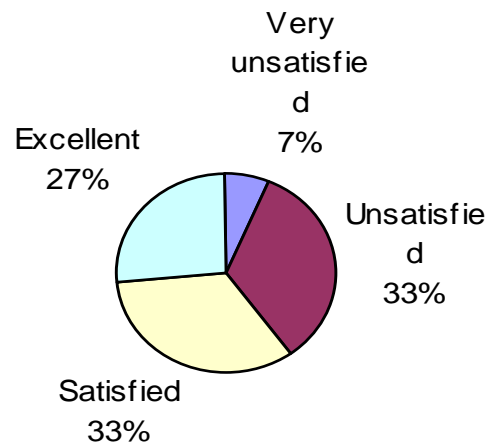


Challenges: Micro



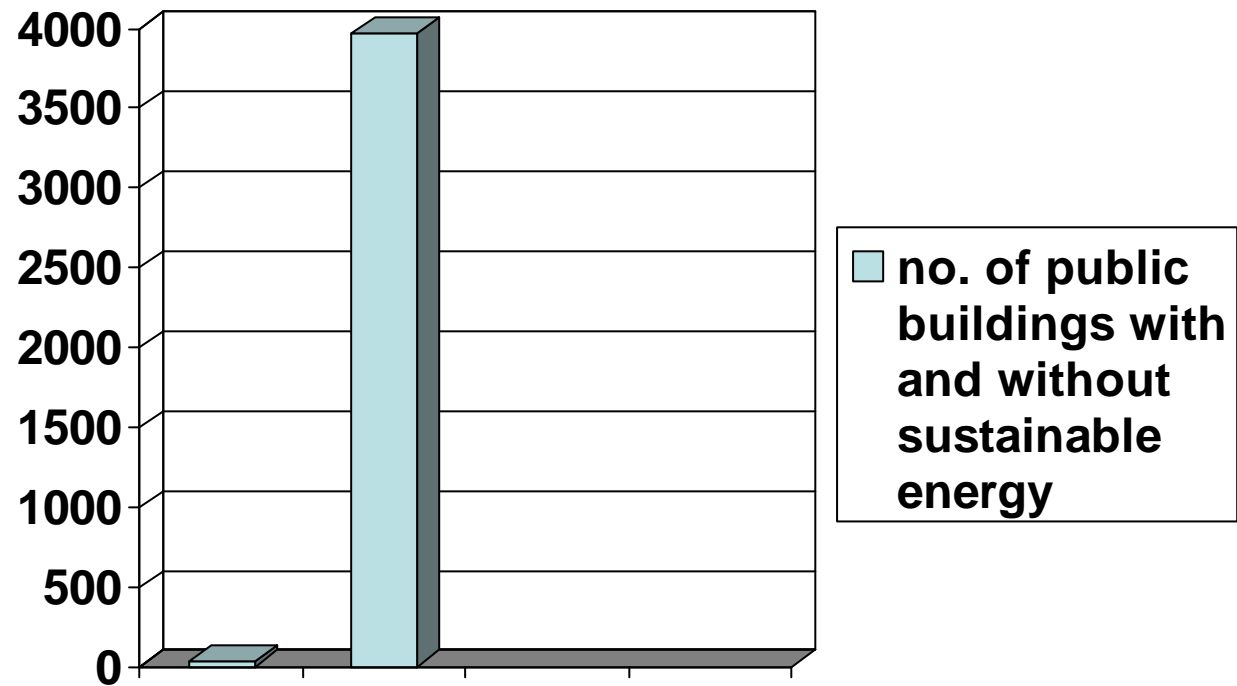
Challenges: Micro

Q12a. How do you feel about the installation and commissioning service provided by the supplier/installer?



Installer service /
accreditation

Challenges: Micro



The HICEC Experience:

Larger scale

28 pre-planning development

1 built

2 with planning

2 in planning



The HICEC Experience:

Gigha: £100,000 pa into
community development



Castlemilk: £250,000 pa funding for
local groups, fuel poverty, EE and
RE.



Challenges



“ Our community began planning this scheme over three years ago and the scheme has attracted 92% local support. However, despite these factors, due to considerable delays in the planning process, we have lost around £250,000 in potential revenue over the past 2 years” *David Cameron, NHT.*

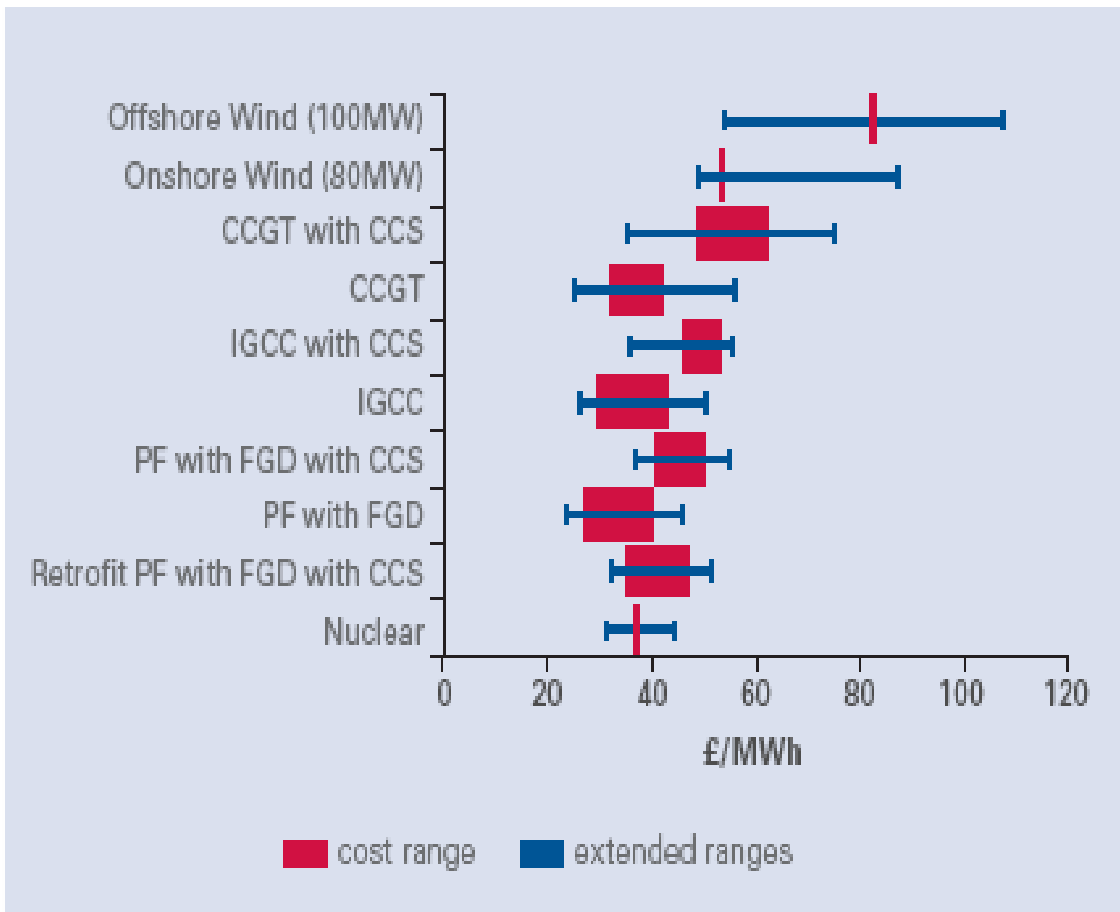
Challenges



The Texas Factor – Market Failure



Challenges



COST COMPARISON BY TECHNOLOGY
Source: DTI 2006

Will the market deliver?



Challenges

HICEC's View

Sub-band created for small community owned non-profit distributing projects of less than 5MW.

Smaller renewables projects contribute not only to the overall RO energy goals, but also to wider policy objectives on micro renewables.

Due to their scale, however, the cost per kW of small renewables projects is higher than for large ones, both at the planning and construction stages.

The application of wind power in embedded distribution systems has not been fully developed from a technical perspective – needs encouragement.

If the ROC incentive is reduced some good projects now in the pipeline may no longer be viable.

Community schemes like the Gigha windfarm were ultimately dependent on the Renewables Obligation legislation to be economically viable.

ROCs: Band or
Not Band?

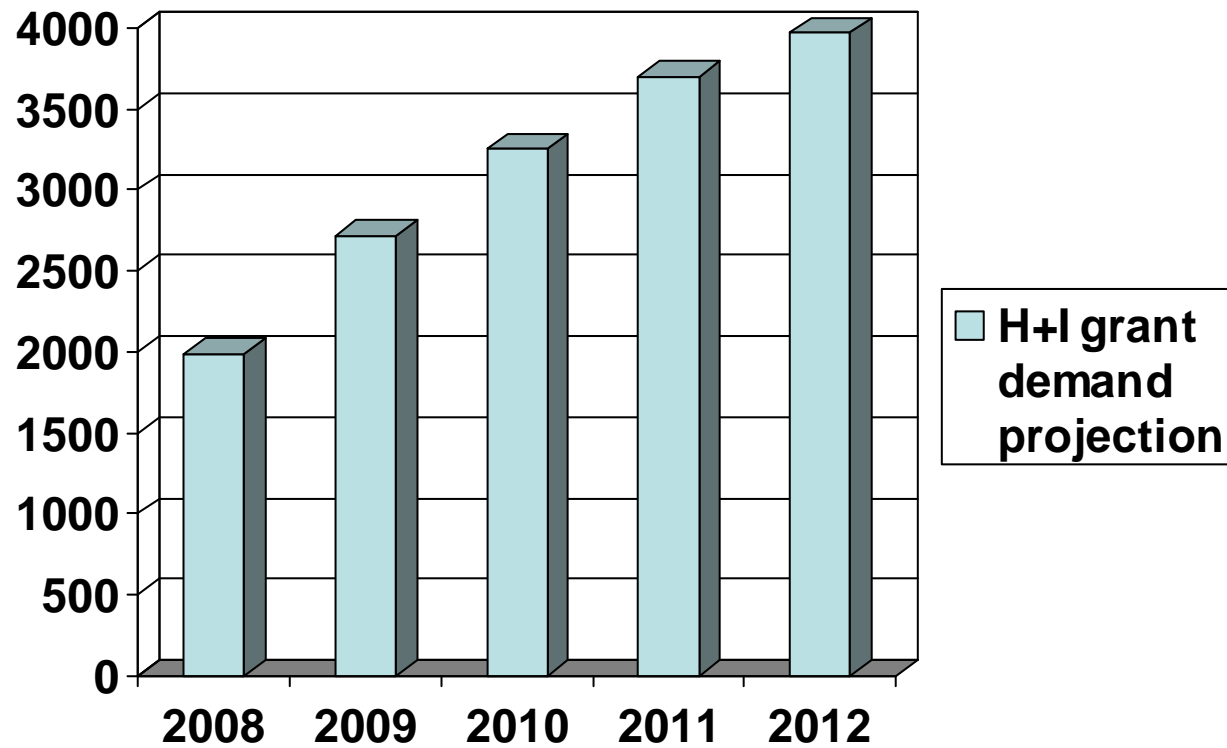


The Future

- Increased attention to energy efficiency
- Community Energy Plans
- Creation of Community Energy Companies and Trusts
- Decentralisation of energy production
- Removal of unnecessary planning obstacles to micro-generation
- Plans to quadruple financial support for micro-generation schemes

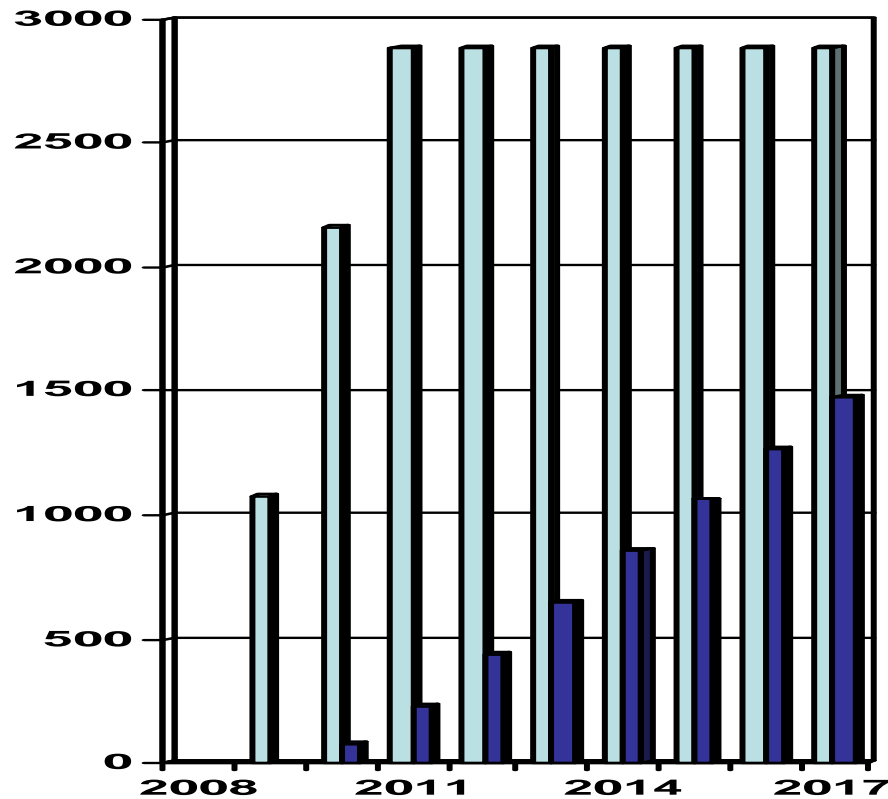
The Future

Grant demand (£000s)



The Future

Sustainable funding : Investment Potential
(£000s)



£9,000,000 fund

Public @ 35%

Private / CSR @
25%

Debt @ 40%



Revenue for:

Free advice costs

Grant

Further investment



The Future

Strategic solutions

- Develop strategic partnerships: purchasing, installation
- Quality control strategic monitoring and evaluation;
- ROC income – and solution for HEAT
- Planning and regulatory requirements – resolve
- Research and development – support the innovators
- Sustainable energy approach, at community level

The Future for HICEC

- Evolving to sustainable energy service to the non-profit sector in Scotland
- ‘Floating’ away from HIE
- Scottish charity – free advice

