COMMUNITY ENERGY
and why it's not going along as fast as we might like

Peter Harper
CAT

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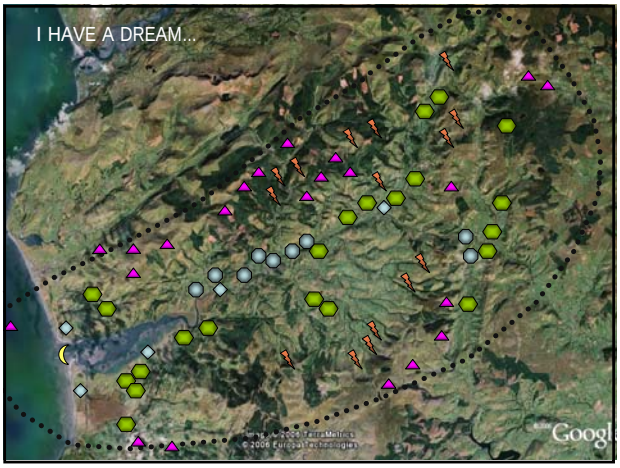
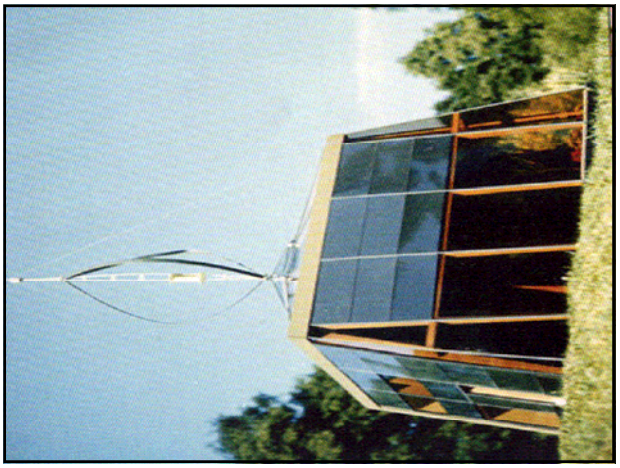
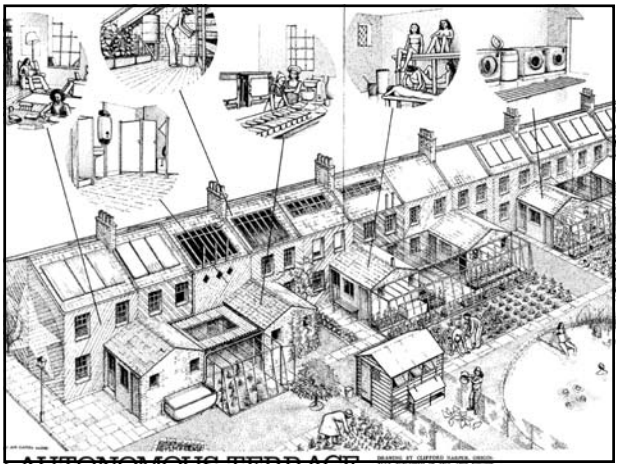
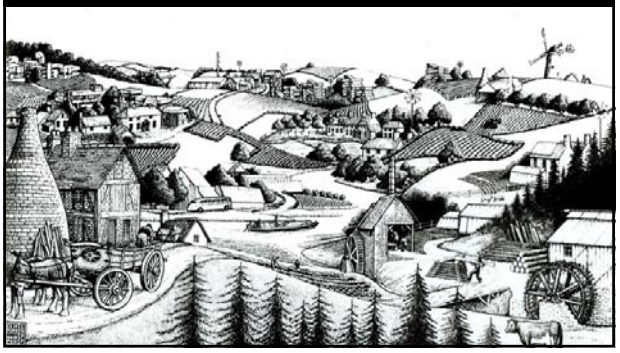
http://www.inforse.org/europe/seminar09_CAT.htm







DELIGHFUL 70s VISIONS



MOTIVATIONS?

- Are we so interested in community-scale work because it's an effective way to decarbonise?
  - for reasons of scale?
  - for reasons of common interest?
- Or is it because we want to regenerate local "communities"
  - because energy is a good focus?
- Or do we think we can achieve a utopian double-whammy?
- Or are we just confused?

WHAT DO WE MEAN BY 'COMMUNITY'?

A SMALL GEOGRAPHICAL GROUP OF HOUSEHOLDS OR PEOPLE;

A NEIGHBOUR-HOOD OR VILLAGE;

A TOWN OR REGION

A SMALL BUSINESS PREMISES

A MID-SCALE INSTITUTION

A HOUSEHOLD

A 'COMMUNE'

AN IDEOLOGICALLY-FOCUSED WORKPLACE

A SMALL AFFINITY GROUP OF HOUSEHOLDS OR PEOPLE

A SUB-COMMUNITY

DISTANT COGNATES

SUBCOMMUNITIES

- Do not mix readily
- Define themselves partly in terms of differences
- So an innovation by one subcommunity is more likely to stimulate rejection than imitation

SHARING WITH NEIGHBOURS

- Has become more problematic
- Institutions are weak at the 'meso-scale'
  - Civil sector short on practical rules
- Supply of most goods and services is centralised and commercialised
- Even with friends
  - Sharing? Washing machine, drier, rarely used implements, occasionally vehicles

SOME THINGS HAVE WORKED WELL IN SUBCOMMUNITIES WHERE THERE IS A HIGH LEVEL OF TRUST

MACHYNLLETH ON-LINE SWAPSHOP

Offered: Ski boots
Item: Size 8 Salomon SX61 boots
Info: Good condition, old school hard ski boots
The deal: Guinness
E-mail: ben.robinson@dulas.org.uk
Tel no: 07771855106
Name: Ben

Wanted
Item: A piano/keyboard
Info: I'm yearning to tinkle those ivories and release the dancing fingers….I'd like to play piano at home!
The deal: Bespoke knitwear, homemade cake, cash
E-mail: graniapickard@hotmail.co.uk
Tel no: 07816 504398
Name: Grania Pickard

PATIENT, SANE AND PERSISTENT ADMINISTRATOR

MACHYNLLETH CAR CLUB

A FEW STATISTICS

- 25 households share three cars, used when other modes are not suitable
- Average annual mileage per user <1500km
- The vehicles are run on 50% biodiesel from waste catering oils.
- Carbon emissions per household per year are less than 10% of UK average for car travel, and there are 17 fewer cars on the street

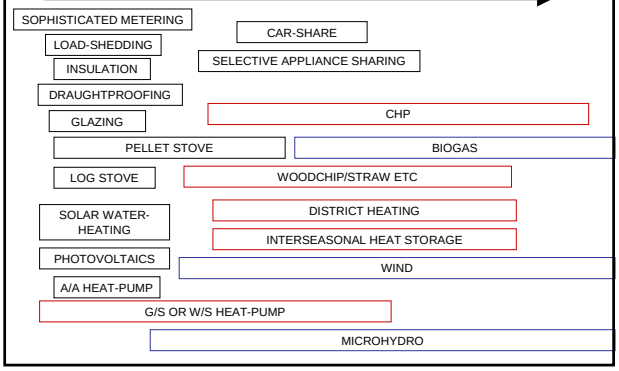
BUT

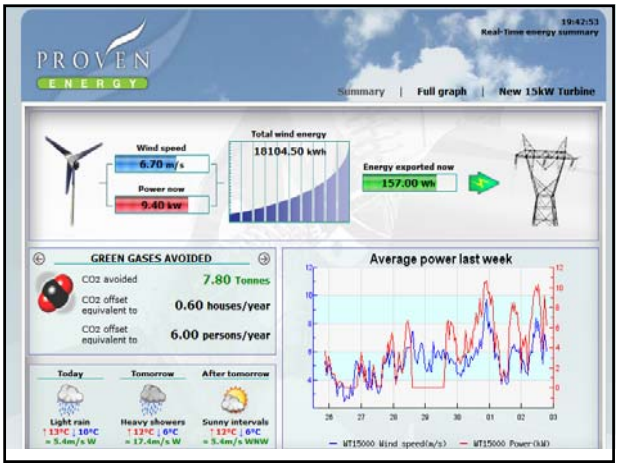
- In spite of very good results over 10+ years, the club has failed to expand out of the initial sub-community
- or to expand even within the subcommunity
- And is currently down to one vehicle
- Would a purely commercial approach have been more successful?
- Or one administered by the public authorities?
- Where is the 'community'?

IDENTIFYING THE SCALES

- What works best at the household level?
- What works at 5-10 households?
- What works at 50-100?
- What works at 500+?
- What are the organisational structures we need to capture these economies of scale?

HOUSEHOLD ENERGY AND SCALE





'SLOW ENERGY' FROM LOCAL FARMS?

AN ASPECT OF COMMUNITY-SUPPORTED AGRICULTURE

- Increasing reasons for reducing lengths of transport legs
- Personal relationships between farmers and their energy clients?
- Farmers could produce their own added-value products, some for their own use, some for sale
- Liquid transport fuels
- Biomass
- Waste processing and biogas production

COULD THIS HAPPEN?

IT COULD, BUT WE ARE ALL LAUGHING BECAUSE WE KNOW IT IS EXTREMELY UNLIKELY UNDER PRESENT CIRCUMSTANCES.

IT DOES NOT FIT OUR CUSTOMARY PATTERNS OF BEHAVIOUR

GENERALLY, THE MOST SUCCESSFUL 'COMMUNITY ENERGY' PROJECTS HAVE BEEN WIND DEVELOPMENTS

- Often initiated by private developers, or in partnership with them
- There can be community involvement any appropriate stage or function
  - Social enterprises of one kind or another, are common
- Success can often be attributed to key individuals
- The project does not simply meet its own needs but exports energy
- If you prefer, you can just sit back and be a ~~capitalist~~ investor

Returns to Members of Baywind

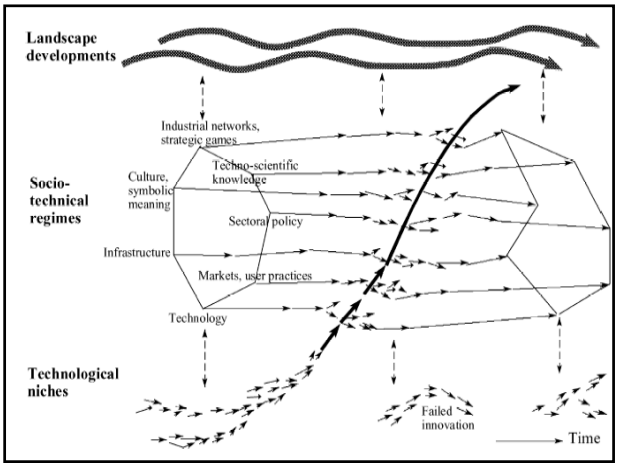
Year 1: (to 31/12/1997) Nil
Year 2: (to 31/12/1998) 6.2% gross (7.8% gross for EIS investor)
Year 3: (to 31/02/1999) 6.6% gross (8.2% gross for EIS investor)
Year 4: (to 31/12/2000) 6.4% gross (7.9% gross for EIS investor)
Year 5: (to 31/12/2001) 5.6% gross (7.1% gross for EIS investor)
Year 6: (to 31/12/2002) 6.1% gross (7.6% gross for EIS investor)
Year 7: (to 31/12/2003) * 3.8% gross (4.8% gross for EIS investor)
Year 8: (to 31/12/2004) 6.3% gross (7.8% gross for EIS investor)
Year 9: (to 31/12/2005) 7.22% gross (9.03% gross for EIS investor)
Year 10: (to 31/12/2006) 6.65% gross (8.31% gross for EIS investor)
* First full year of Energy4All

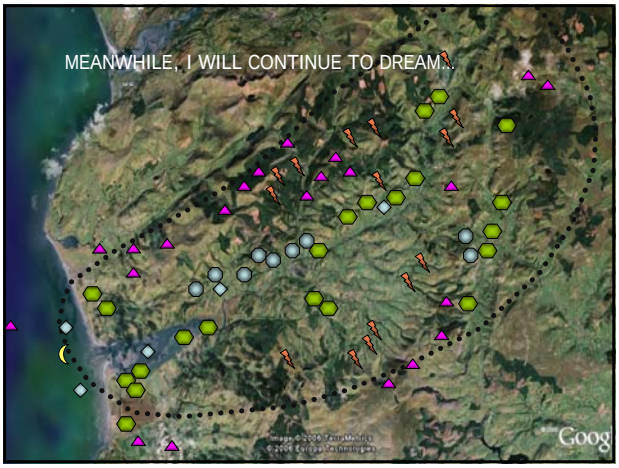
SUBSIDIES AND FUNDING

From Gordon Walker's study of community energy

	Programme / Network	Funding Source	Managed By
Government led	Community Renewables Initiative Clear Skies Scottish Community and Households Renewables Initiative Community Action for Energy (CAFÉ) Community Energy [EST PV programme/innovation	DTI DTI Scottish Executive DEFRA & Others DEFRA & Others DTI	Countryside Agency Building Research Establishment EST, Highlands and Islands Enterprise EST/Centre for Sust Energy EST/Carbon Trust EST]
NGO / Charity led	Energy 4 All Renewable Energy Investment Club Solar Clubs Ashden Awards Energy 21 Network	Baywind Coop/Coop Soc Countryside Council for Wales/EU Various charity Ashden Trust Various	Baywind Dulas Environ/CSE Ashden Trust Energy 21
Private Sector	Community Power	Powergen	Powergen

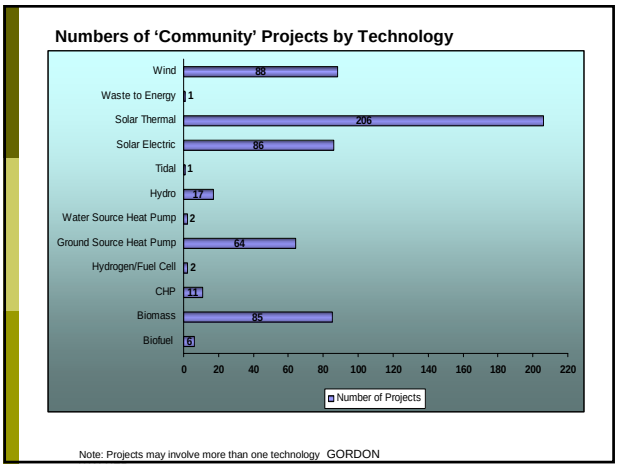
NEXT: THE FEED-IN TARIFF





- 'Lock-ins' are often social
- This both helps and harms 'community' initiatives

- Why can't a group of friends/householders put their money in the pot and just do it?
- Often they don't have a lot of money!
- But say £1000 each from 100 households, = £100,000.
- That buys you a 100kW second-hand machine, connected etc. Capacity 20%
- Payback is 10+years


Numbers of 'Community' Projects by Technology
Wind
Waste to Energy
Solar Thermal
Solar Electric
Tidal
Hydro
Water Source Heat Pump
Ground Source Heat Pump
Hydrogen/Fuel Cell
CHP
Biomass
Biofuel
88
1
206
86
1
17
2
64
2
11
85
6
0
20
40
60
80
100
120
140
160
180
200
220
Number of Projects
Note: Projects may involve more than one technology GORDON