

# Energised Communities

## local renewable energy as a global phenomenon

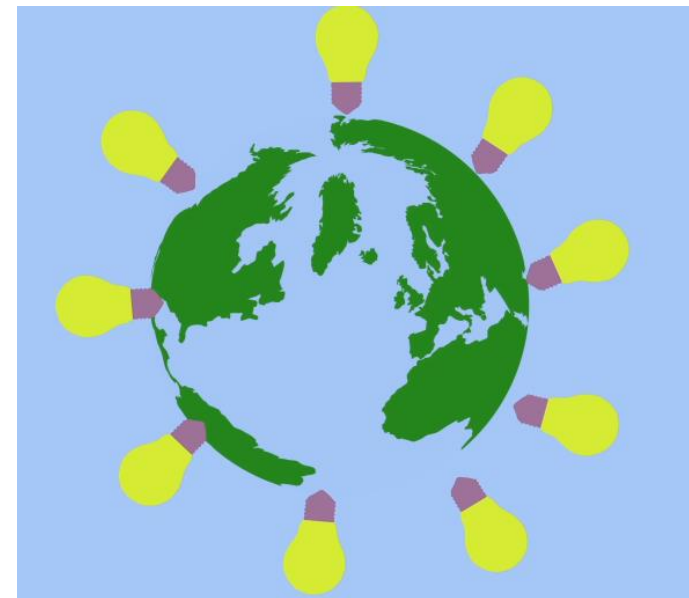
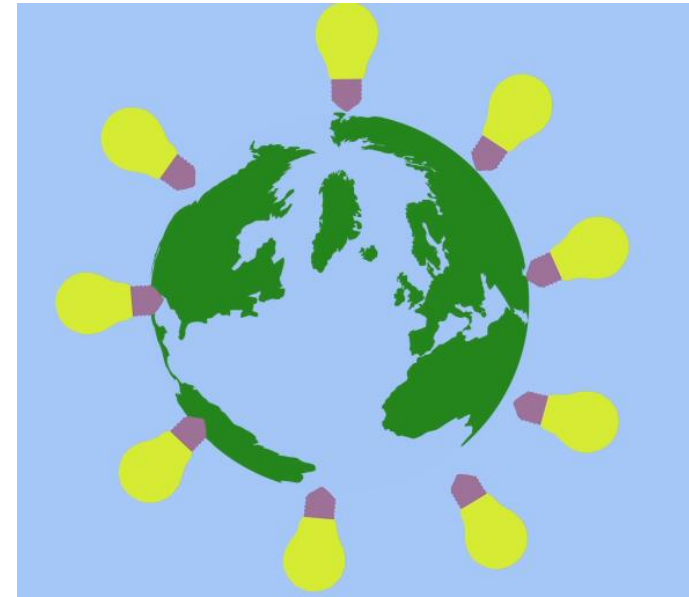
Professor Gordon Walker

*Lancaster Environment Centre  
and DEMAND Centre,  
Lancaster University, UK*

**DeMAND**  
DYNAMICS OF ENERGY, MOBILITY AND DEMAND



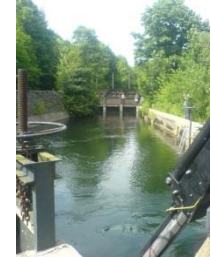
- 1000s and 1000s of community power generation projects around the world
- = a rapid spread of ideas, examples, experience and skills
- enormous diversity in ‘what’, ‘where’ ‘why’ and ‘who’ [lo que, donde, per que, quien]



# LO QUE?



## Different technologies



## Different sizes



# DONDE?

## In many different types of area and community



# POR QUE?

to generate **income and jobs**, bringing positive economic benefits for local people

to **resist** centralised and distant government, and big energy companies and projects – a local **alternative** to ‘big power’

to **work together** locally on a positive objective, building **empowerment** and local **democracy**

to become **green and low carbon**, typically using technologies on a smaller scale – being innovative

to bring **accessible and affordable** energy to communities who have poor access to energy or struggle to pay



# QUIEN?

Religious organisations

Farmers in cooperatives

Local municipalities  
and councils

Ethical investors

Social entrepreneurs

Development NGOs

Technology enthusiasts

Consumer groups

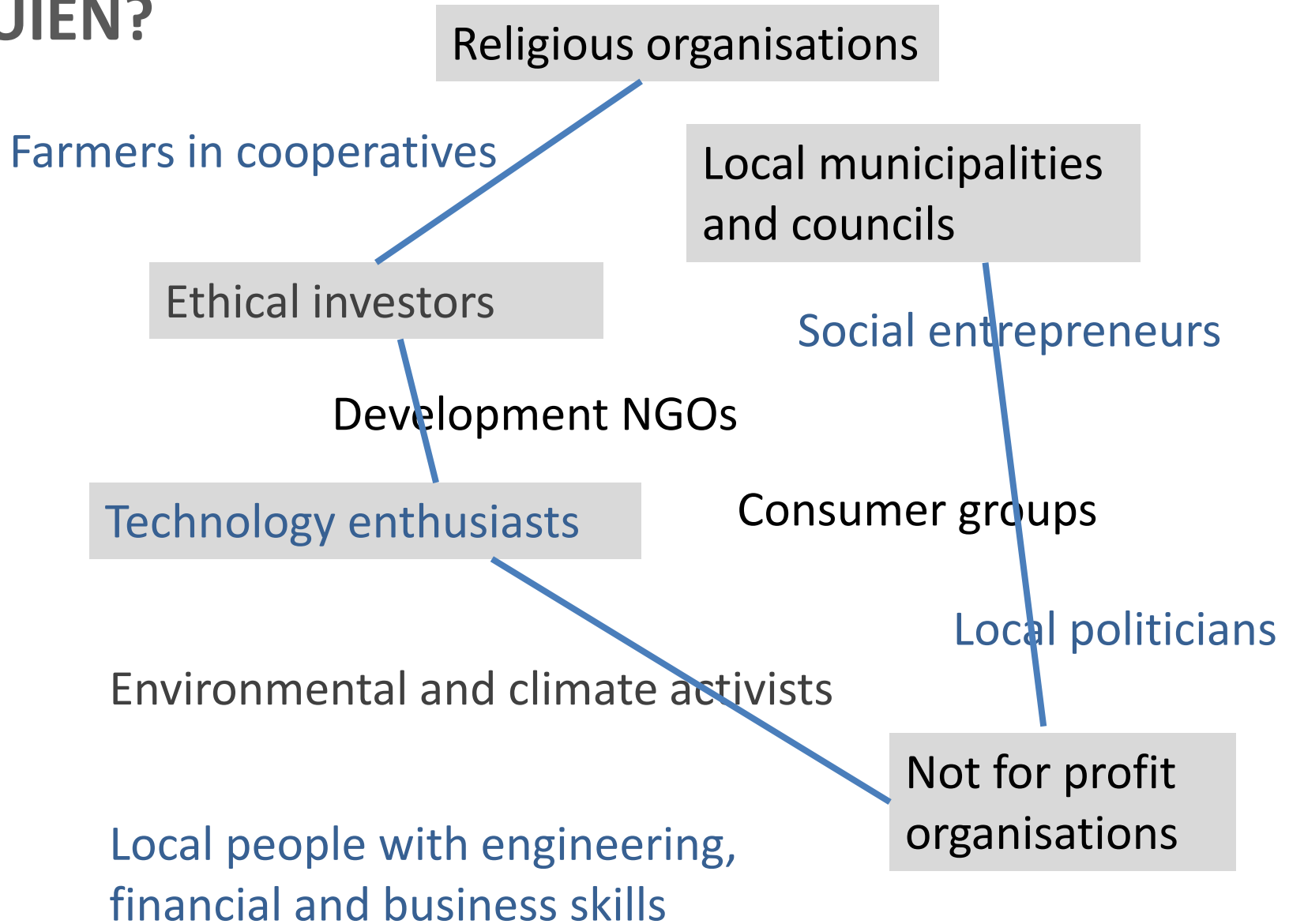
Local politicians

Environmental and climate activists

Not for profit  
organisations

Local people with engineering,  
financial and business skills

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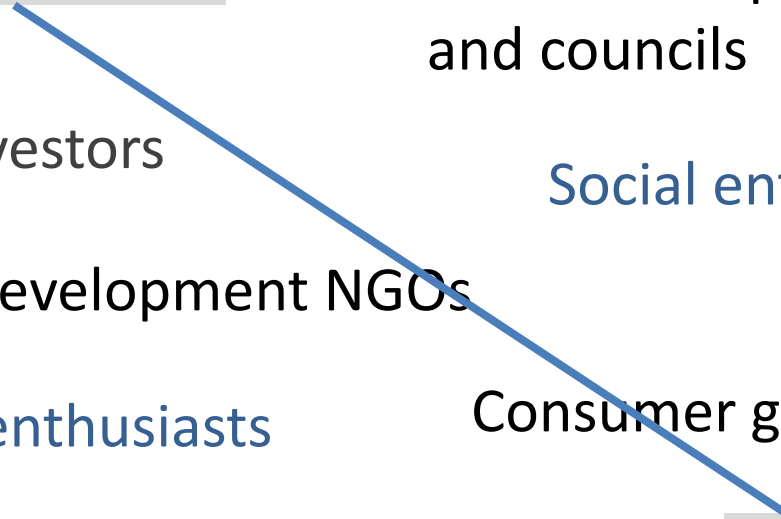
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## Two examples ....





# Buan Citizen Power Generation

- South Korea : heavy dependence on foreign energy sources & nuclear
- Buan Citizen Power Generation Project (BCPG) – rural and remote area
  - PV panels on community and religious buildings
  - Started 2005 funded by 10 local people;
  - Reinvestment of profits on further energy technology;



- The BCPG organisation has its origins in local campaigning against:
  - the Saemangeum Sea Dyke reclamation plans proposed in the 1980s
  - nuclear waste disposal 'site-selection' process 2003- 2004
- the solar PV project became a way of '*keeping the spirit*' of collection action going, and of '*realizing the ideal*' of '*genuinely sustainable energy*';
- **plus** resisting central government and the close relationship between the energy industry and the government
- **plus** a strong religious and ethical commitment

*“...the way of life based on fossil fuels reflects the current capitalistic civilization of mass consumption and mass production ...Nuclear energy is absolute evil. It is like opening the Pandora’s Box that shouldn’t have been created and shouldn’t have been opened....In a society sustained by fossil fuels and nuclear energy source, there are beneficiaries and victims... victims are forced to take the consequences of others benefiting”*

*(BCPG Project leader).*

*“When we give the world everything we have, the change will come. This is the movement for the Kingdom of God as well as a renewable energy movement”*

*(BCPG Project leader)*



# Middelgrunden Wind Turbine Cooperative

Cooperative energy projects have a long history in Denmark, demonstrating a collaborative and democratic principle and culture

Many small cooperative wind projects over last 30 years – in farming communities to begin with

The biggest (in the world) ..... 20 x 2MW turbines, located 3km offshore from Copenhagen harbour (generating 3% of City's energy)

50% owned by **Copenhagen Energy** (the local utility company, itself owned by Copenhagen municipality), and 50% by **Middelgrunden Wind Turbine Cooperative** with over 10,000 members.



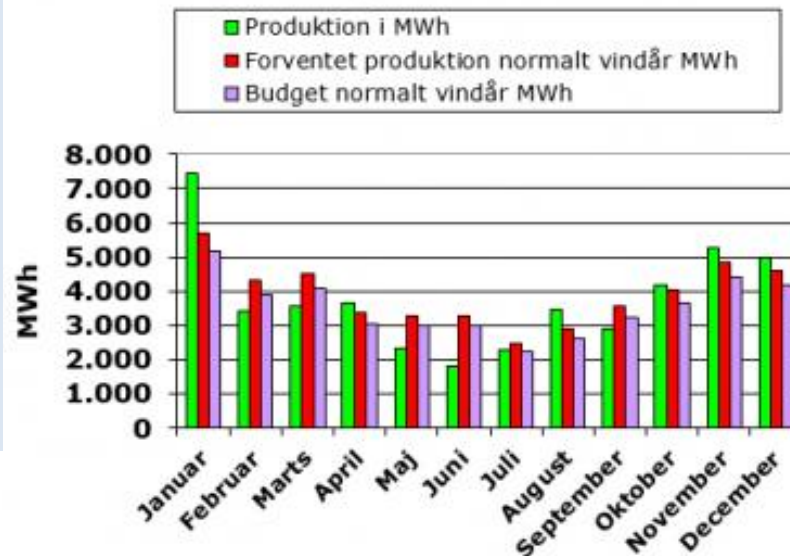
# Middelgrundens Wind Turbine Cooperative

The project had a lot of public support. Other private-developer owned offshore wind projects have met local opposition

Open and continual public engagement, along with the involvement of the local municipality, helped the project to gain trust and support from a very diverse local population



Middelgrundens Vindmøllelaug, produktion 2014  
Total produktion 45.380.947 kWh



# A RAPIDLY GROWING GLOBAL MOVEMENT THAT ..

puts  
communities  
right  
at  
the  
centre



of  
the  
energy  
policy  
debate