



Northern Ireland's  
**Community Energy Co-Ops**

# Karen Arbuckle

- Co. Antrim - family owned farm
- Long established dairy & beef enterprise
- Location of 1 of the 6 Drumlin Wind Energy Co-Op 250 kW turbines
- NICE Director & Project Manager 2<sup>nd</sup> Phase
- Enthusiast community ownership & empowerment
- Chairperson Co-Operative Alternatives



# What is a Co-Operative?

“ an autonomous association of persons united **VOLUNTARILY** to meet their **COMMON** economic, **SOCIAL** & cultural needs & **ASPIRATIONS** through a **JOINTLY OWNED** & **DEMOCRATIC**ally controlled enterprise”

**It's a  
Business**

# Co-Operative Principles

- 1. Voluntary open membership**
  - Run as robust business
- 2. Democratic member control**
  - Board responsible to Co-Op members
- 3. Member economic participation**
  - one member one vote - Each member has a say in how the business is run
  - Members can put themselves forward for election to Board
- 4. Autonomy and independence**
  - Local board elected by members
- 5. Education training and information**
  - All members invited to an Annual General Meeting each year
  - Members vote on resolutions
- 6. Co-Operation amongst co-operatives**
  - A proportion of Board members retire each year
  - Net profit paid to members as 'share interest'
  - Social ethics: responsibility, equality, fairness supports environmental and social goals
- 7. Concern for the community**
  - Community benefit fund for local community - Co-op devotes % of profits to 'social' projects locally



# Community Energy Ownership

- Traditional energy companies maximise profits
- Community energy co-ops far more decentralised, equitable model – run by the community to benefit the community
- Northern Ireland & Ireland lag behind our UK & EU counterparts in community energy – WHY...
  - Geography, infrastructure, environment
  - Planning, legislation
  - Ability to access finance
  - Time & commitment from the community
  - Lack of know how expertise within a community to progress a project.





- Northern Ireland's first wind energy co-operative.
- Share offer 1 - raised 3.4 million to build 4 x 250 kW turbines.
- Share offer 2 – raised 1.2 million to build another 2 x 250 kW turbines
- 6 turbines erected and now generating.
- Drumlin generates revenue from the sale of electricity & receives income from government 4 ROCs
- Investment min £250 up to max £20k - eligible uk tax payers 30% EIS tax relief
- Members projected average financial return 8% before tax, 12% with tax relief.
- £12k community fund per year.





# Turbine Locations

1. Aghafad, Pomeroy
2. Cavanoneill,
3. Ballyboley, Larne
4. Connor, Ballymena
5. Ballyrobert, Ballyclare
6. Cavanokill, Newtownhamilton



- N.I.'s first renewable energy community benefit society
- Share offer 1 raised investment target of £150k
- Share offer 2 to date has raised over £60k (target is £130k) closing 13<sup>th</sup> September 2016
- Enabling, free of charge, solar PV panel installations ranging between 4 – 20 kW on 3<sup>rd</sup> sector buildings that are used for the benefit of the community in Northern Ireland
- 1<sup>st</sup> phase - 13 installations on community buildings totalling 130 kW
- 2<sup>nd</sup> phase a further 5 x 12 kW installations in the pipeline totalling 60 kW





- NICE will generate revenue from the sale of electricity & receive income from government ROCs
- A community benefit society - operates on the same basis as a co-operative
- A community fund will be established & managed for further future energy saving improvements to tackle fuel poverty in N.I.
- 'Asset Lock' and additional proviso
- Minimum investment £250 up to a maximum £20k per individual or organisation
- Investment tax relief:-
  - Share offer 1 only - UK tax payers eligible for SEIS tax relief @ 50%
  - Share offer 2 – Personal Savings Allowance UK tax payers basic rate tax payers receive up to £1,000 , higher rate taxpayers up to £500 of savings income, without any tax being due.
- A fair return to investors – up to 4% before tax relief.
- A 'share your roof scheme' differs from 'rent your roof'.
- Participating groups enjoy PV generated electricity @ a considerably reduced rate for 20 years.

# NICE INSTALLATIONS



1. Mediation NI
2. Chinese Welfare Association
3. Ashton Centre
4. Whitehead Community Association
5. Rath Mor Centre
6. Londonderry YMCA
7. Women's Aid
8. NIAMH
9. Bryson Recycling
10. Ulster Wildlife
11. Harmony Community Trust
12. Confederation of Community Group
13. Mornington Community Project
14. TIDAL
15. Nerve Centre
16. Positive Futures
17. Workwest Social Econ Village
18. Galbally Youth & Community Group



# Community Energy Ownership

Working co-operatively we can achieve community ownership of renewable energy development by:-

- engaging & working in partnership with communities to
  - help them reduce carbon emissions;
  - reduce their utility costs & become more sustainable;
  - showcasing low carbon technologies;
  - provide an economic benefit reinvestment /community fund





**community owned energy**

Renewable technology  
Energy saving services

**reinvestment**

- Further community energy projects
- Community Energy saving services

**Community investment**

**profits**

- ROCs,
- energy generation income

**community benefit**

- Return to investors
- Community energy cost savings
- Create Community Fund



Model Comparison	Drumlin	NICE
Origin - Entrepreneur	Remunerated	Voluntary Unpaid
Project Development & Management	Energy4all	Voluntary Unpaid
Share Offer Development & Admin	Energy4all	BCT Community Shares Ready Project & Co-Op Alternatives
Landowners/ community groups	% of turbine generation	Significantly reduced electricity
Board members – locally elected	Directors fee	Voluntary Unpaid
Investment Capital	£4.8 million	£280 thousand
Members return after tax relief	Up to 12%	Up to 4%
Community Benefit Fund	£12 k per annum	All surplus profits over expenses and investor interest rolled into fund
Total Members	900	111
Percentage N.Ireland	25%	80%
Other		Asset lock

# Many more possibilities of various scale



Wind

Anaerobic  
Digestion

Hydro



CHP

Solar



Biomass

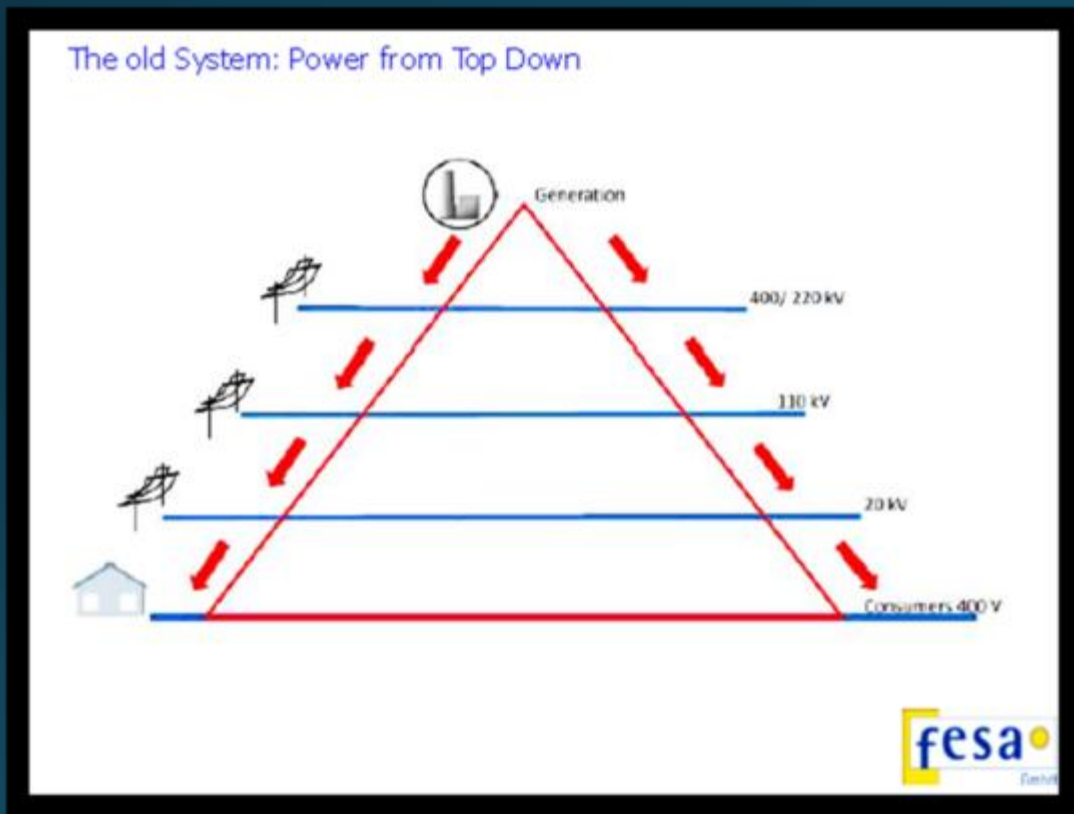
Energy Supply  
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generation,  
supply



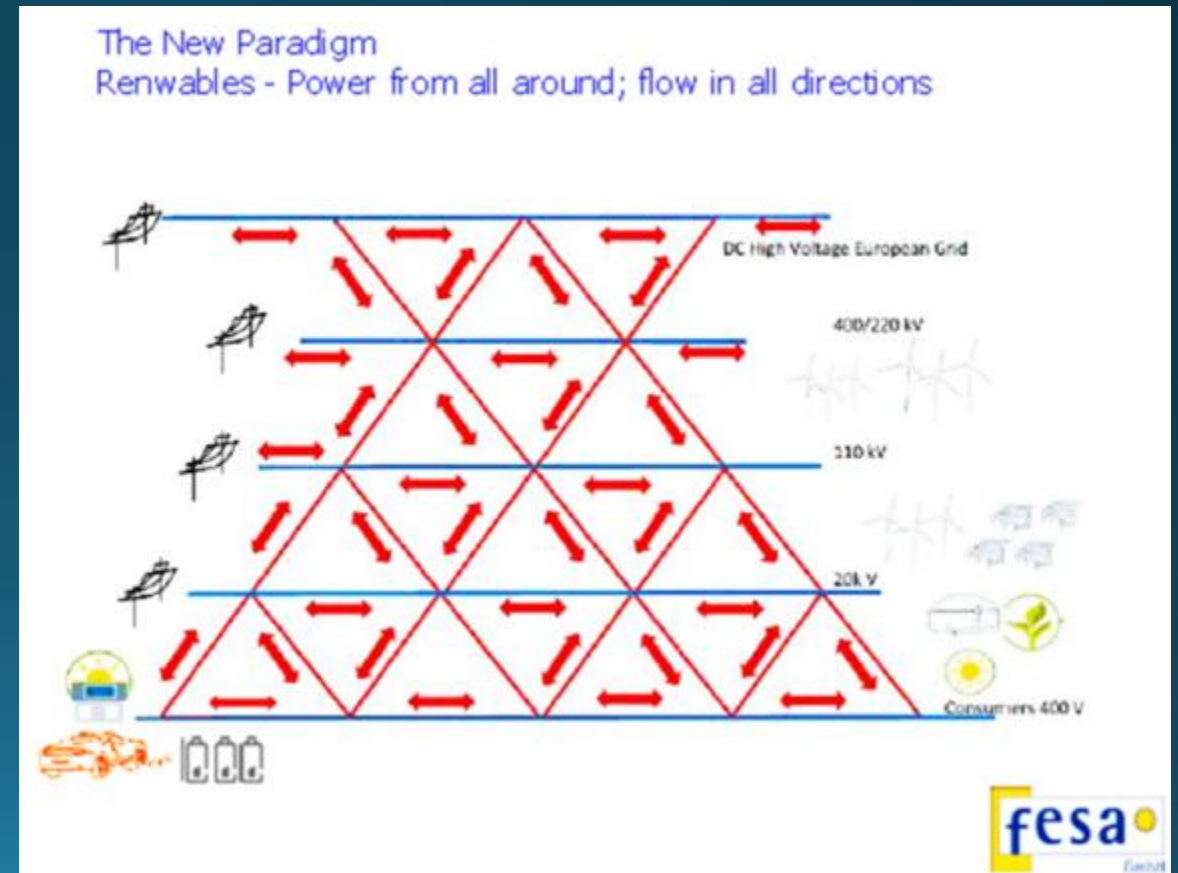


# Infrastructure – Grid

## Current Grid



## A diverse grid – capacity & storage



# Which way now – What is the plan??

- Ireland has natural energy resources in abundance.
- A diverse "smart mix" of renewable energy sources supported by **appropriate infrastructure**
- Combined with **reduced energy**, used with energy efficiency gains & **energy saving technologies**
- Backed up by Government **policy & planning**.
- **Investment**
- **Education**
- **Community commitment**
- Do quick profits & investment outweigh the cost to life & environment ?





**“Imagine fuel without fear.  
No climate change.  
No oil spills, dead coal miners, dirty  
air, devastated lands, lost wildlife.  
No energy poverty.  
No oil-fed wars, tyrannies, or  
terrorists.  
Nothing to run out.  
Nothing to cut off.  
Nothing to worry about.  
Just energy abundance, benign and  
affordable, for all, for ever”.**

- Reinventing Fire by A Lovins.





A photograph showing four hands clasped together in a circle on a green lawn. The hands are of different skin tones, suggesting a diverse group of people. The text is overlaid on the image.

# Co-operation not Competition

**COMMUNITY ENERGY**  
**run by the community**  
**for the benefit of the**  
**community**