

# Drumlin Wind Energy Co-operative

- Drumlin owns and operates 6 x 250kW turbines
- £4 million raised from almost 1000 community members 2012-2014
- A turbine could be constructed in a day using 2 cranes
- Most Drumlin towers are 30m high
- Blades are 30m diameter
- Last turbine erected 2015



# Drumlin Co-op

## Wind turbine locations in Northern Ireland

- **Aghafad, Pomeroy**
- **Ballyboley, Larne**
- **Cavanoneill, Pomeroy**
- **Artnagullion, Kells**
- **Ballyrobert, Ballyclare**
- **Cavanakill,  
Newtownhamilton**



# Where is your nearest turbine?



# Why Renewable Energy?

- Can generate clean, green electricity and reduce reliance on fossil fuels which are less environmentally-friendly.
- Their use reduces greenhouse gas production to help limit global climate change.
- Renewable energy sources never run out.
- They are often available free, eg wind and sun.



# Wind Energy in Northern Ireland

- In 2014 almost a fifth (19.5%) of Northern Ireland's electricity needs came from renewable sources, 18.3% of which was from wind energy.
- The N.I. Executive set a target of 40% of electricity from renewables by 2020.
- In 2020 nearly half (45%) of energy in Northern Ireland came from wind power.
- Includes Drumlin Co-op, (community owned)



# Other Renewable Energy

## Solar Power

- 2 types of solar panels exist. Both capture the sun's energy.
- Photovoltaic solar panels generate electricity.
- Solar water heating panels produce hot water.
- Both can still work, though not as well, on a cloudy day.

## Hydropower

- Hydropower is the renewable energy contained in flowing water. Electricity generated using hydropower is known as hydroelectricity.

# Other Renewable Energy 2

## Biomass

- Uses wood pellets, woodchip or logs of wood.

## Biogas

Produced when microorganisms digest waste (eg animal manure and slurry, sewage sludge, waste food) or plant matter. This has to be done without oxygen in a special digester.

## Geothermal

- Uses heat from underground or from a body of water.