

# Wrexham Council: Carbon Reduction Progress Report



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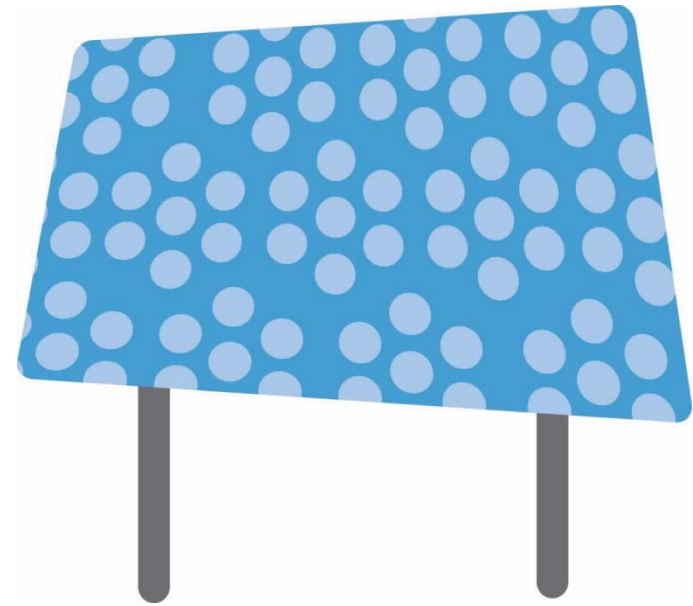
# Background



- Carbon reduction and energy efficiency has been a council priority since 2008
- Establishment of Carbon Reduction Team
- Carbon Revolving Fund
- CRC Energy Efficiency Scheme
- FITS and RHI

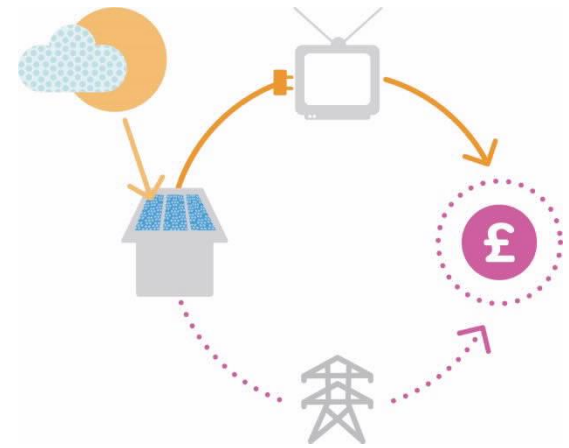
# Why Renewables?

- Reducing Wrexham's Carbon Footprint
- Innovative use of Council owned assets for securing long term income generation.
- Generation of Green Energy.
- Pioneering Local Authority
- Community Leadership



# Social Housing PV

- 2011/12 the council lead on an ambitious Solar PV project to install PV on the authorities housing stock
- 2700+ properties retrofitted with PV.
- Largest Social Housing Solar PV scheme in Europe.
- By October 17 the project had generated 20,000 MWh of green electricity.
- Income of £7.5 Million



# Commercial PV

- In 2013 the team embarked on the Installation of PV on 15 schools and 2 Offices.
- Low Carbon Schools
- Income generation
- 1,000 MWh of green electricity generated
- Project payback in 7-8 years

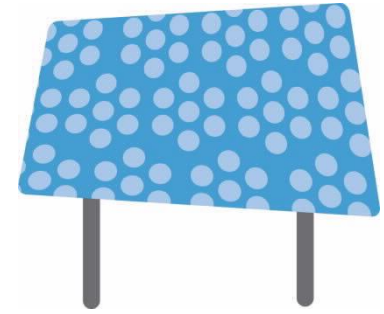


# Legacy Solar Farm

- 43.1 acre site of council owned land
- Site to retain agricultural use
- Good connectivity to the grid
- Favourable site topography
- Ecology



# Legacy Solar Farm

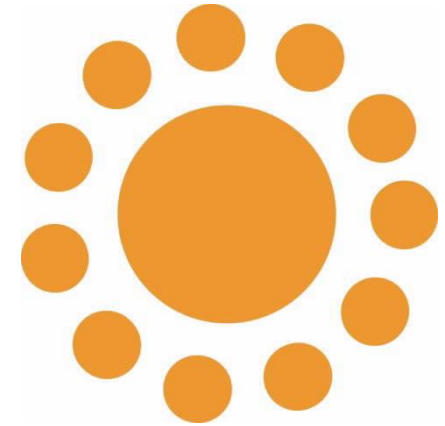


## Preliminary Works

- Obtaining grid connection agreement with Scottish Power.
- Commission the indicative Design and layout of site to support planning application.
- Planning application was required. The following main assessments and studies were included in the planning application process:
  - Ecological study
  - Landscape and visual assessment
  - Transport management plan
- Establish a procurement framework to appoint contractor.

# Legacy Solar Farm

- British Gas were awarded the contract and in January 2015 building work began on the development of Legacy Solar Farm.
- 8,880 Panels
- 2.64MW site
- The Legacy Solar farm was officially opened by Wrexham Councils Mayoress on the 17<sup>th</sup> June 2015.
- Since June 15 the farm has generated 5,000 MWh of green electricity.
- By October 17 the solar farm has generated an income of £600,000





# Redwither Tower Biomass

- In the autumn of 2015 work commenced on site for the installation of a biomass boiler and gas back up boilers within the authorities largest commercial office.
- Existing boilers were in excess of 25 years old and in need of replacement.
- A 800kw Biomass boiler was installed with a 20,000 litre thermal store.
- The new biomass system supplies 98% of the existing heat demand.
- Auxiliary and back up heating provided by two 1.2 MW gas boilers.
- Income through RHI and saving through reduced gas consumption to the authority of £30,000 per annum.



# Future Projects

- Solar PV Battery Storage
  - Community Resource Centre
  - 10kWp system
  - Battery Storage over night



- Electric Vehicle Charging Points
  - Working with Cenex to complete a feasibility study into electric charging points across the council owned car parks
  - Incorporate renewable canopies
  - Charging solutions
  - Increase fleet of pool electric cars

