



TOWARDS NET ZERO ENERGY

- Offshore wind energy
- Perovskite solar panels
- World events

Cambridge researchers visualise the internal structure of perovskites, improving manufacture of perovskite solar panels.

The UK announces its sixth carbon budget, enshrining in law a new target to slash Greenhouse Gas (GHG) emissions by 78% by 2035

Snaith establishes Oxford PV to commercialise a perovskite-based, low-cost, transparent solar cell coating that can be used on commercial buildings to convert sunlight into electricity.

SUPERGEN researchers publish details of Individual Blade Control to reduce stress on turbine blades, subsequently commercialised by SgurrEnergy.

EPSRC supports research at the University of Oxford, led by Dr Henry Snaith, into materials called perovskites, to create low-cost and more efficient solar cells.

UK Climate Change Act is enacted. It sets a target for the year 2050 for the reduction of six targeted greenhouse gas emissions.

Oxford PV's perovskite solar cell converts a record 29.52% of sunlight into electrical power – much higher than the 15-20% conversion rate of standard silicon cells.

The UK has the highest level of installed offshore wind energy capacity of any country in the world, thanks in part to sustained EPSRC investments.

Paris Agreement: a landmark in the multilateral climate change process that, for the first time is a binding agreement for nations to undertake ambitious efforts to combat climate change and adapt to its effects.

Modelling techniques that assess the impact of wind turbines on radar used by oil rigs to avoid collisions with ships are used in the construction of more than 1,500 UK offshore wind turbines. The research is supported by SUPERGEN at The University of Manchester.

EPSRC makes a major investment in wind energy through the Supergen Wind Consortium, helping to position the UK as a world leader in wind energy technology.

The Intergovernmental Panel on Climate Change (IPCC) was established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO).

