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The energy trilemma and the future for UK energy?

The Energy Trilemma demonstrates that there is a balance required between energy security, equity and environmental sustainability. What is the future for energy in the UK in the light of this, nuclear development delays and issues around shale gas? Data on potential shale targets is scarce with many questions remaining unanswered. With more efficient renewables, we can make an impact on carbon budgets. The use of smart meters and understanding how we can integrate smart systems into decision making processes is key. Smart meters though are only useful if the way that we use such systems is considered in their design. Where other energy efficiencies are concerned – the use of nano-coatings on wind turbines designed to shed water, preventing the build-up of ice can greatly improve power generation efficiency. We also need to consider transportation. Some companies have made EVs fashionable due to good design and marketing. It is interesting to note that UK Research Councils are currently growing investment in energy storage, efficiency and whole energy systems. So what are the solutions for our Energy needs? Is it in examples such as the Swansea Bay Tidal lagoon (320MW installed capacity, 155,000 homes, requested strike price £168/MWh); or Hinkley nuclear power station (3.2 GW, 5 million homes, strike price £90/MWh)? Whatever direction the UK takes, many potential developers are crying out for more stability in the energy sector for investors.

Biography

Gavin K Gillmore completed his PhD in 1990 from University College London and received Shell CASE award. He worked for a Hydrocarbon Consultancy company before moving to academia and becoming the Head of School of Geography, Geology and the Environment for 10 years. He is now the Head of Kingston Energy at Kingston University, leads the Energy Theme within the Faculty of Science Engineering and Computing Centre for Engineering, Environment and Society Research and attends the All-Party Parliamentary Group on Energy Studies. He is also the Chair of the Doctoral Training Alliance Energy Training group. He has published more than 70 papers in international peer-reviewed journals and is a Guest Editor for some publications.

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