Energy systems and ecosystem services; an emerging research agenda

Dan van der Horst <u>d.vanderhorst@bham.ac.uk</u>

Ludwig Boltzmann once said that the struggle for survival was the struggle for available energy. Ludwig's statement contains a metaphor of Darwin's evolutionary ecology; the 'survival of the fittest'. The purpose of my talk is to further explore some of the links between ecology/ecosystems in the Anthropocene and our energy systems which are slowly moving towards decarbonisation, decentralisation and re-localisation. This exploration (so I hope) will serve to stimulate the emergence of a transformative energy research agenda which is not hampered by the false distinctions between people and nature and between technology and ecology. Drawing on examples of my own research, I will also engage with some of the 'so what' aspect of academic research in this area; e.g. how can our growing understanding of energy systems as (part of) ecosystems, feed into better policies? How can theories of socio-technical (energy) transitions improve our spatial and ecological planning frameworks?