

Clean technology take-up through community innovation

To achieve the CO₂ emission reductions believed to be necessary to avert catastrophic climate change, many feel that we need a new industrial revolution, a transition from a low-efficiency, high-carbon, fossil-fuel based energy system to one that is high-efficiency and low-carbon, based on renewable sources. There also needs to be a very significant reduction in energy demand, through increases in efficiency and changing current practices and behaviours. How can such a transition be achieved?

Many governments around the World, including the UK and USA, have published “transition plans” (e.g. http://decc.gov.uk/en/content/cms/publications/lc_trans_plan/lc_trans_plan.aspx), outlining initiatives and schemes to reduce their country’s emission levels and dependence on foreign oil and gas imports. Ambitious targets include the electrification of all ground transportation, massive improvements in energy efficiency (30% of the total energy demand in the USA today could be saved by energy efficiency measures) and significant deployment of clean technologies and uptake of low carbon behaviours in the domestic sector.

To achieve the latter, support for community groups is being made available to help them determine which energy efficiency measures and clean technologies are right for them. However, a recent report by the UK’s Institute for Public Policy Research (IPPR) has revealed that such initiatives are causing large sections of UK society to disengage from the climate change agenda, citing being made to feel guilty of their lifestyles and the inappropriateness of certain new technologies as major reasons for inaction.

Initiatives such as the UK’s Low Carbon



Community discussion of options

Communities Challenge attempt to engage the public only once technologies have been developed. What is clear from the IPPR report is that people make choices on which technologies to use based on a variety of reasons, from those that are purely aesthetic, to those that involve cultural, traditional and other personal values. Hence, these values must be met in the design of clean technologies if we are truly to engage communities in their use.

This would necessarily involve the engagement of communities throughout the design and development process. This would allow exchange of ideas and feedback at each stage of the process, so that the resultant technology is not only clean either in itself or the behaviour it promotes (in terms of carbon



Solar water heating panels

emissions), but is also held to be appropriate and attractive to the community it is designed for. Only then will we see wide-spread deployment of clean technologies.

This work is being sponsored by the Royal Academy of Engineering’s Global Research Award – details from Misty Palmer at The Royal Academy of Engineering (020 7766 0600; email: misty.palmer@raeng.org.uk).

*For further information
please contact please*

*contact Professor Stefaan Simons, Executive
Director of the Centre for CO₂ Technology,
University College London (E-mail:
stefaan.simons@ucl.ac.uk).*

