

FORTHCOMING CES SEMINAR

Thursday 30th April 2009 at 13.00 hours
Room 45A AZ 04

DESERTEC – Clean Power (and more) from Deserts

Robert Palgrave

DESERTEC-UK

Cheap energy, in the form of fossil fuels - aptly described as 'stored sunshine' – has been the major factor driving humanity's expanding population and prosperity. Over-exploitation of this legacy of stored energy and other natural resources now threatens our survival. We have a stark choice – ration the use of energy to protect the climate and eke out dwindling supplies, or find alternative energy sources that are non-polluting and will not run out.

Hot deserts can, and should, provide part of the solution. Land that is unsuitable for cultivation or settlement can be turned over to large-scale energy and clean water production using concentrating solar power (CSP). A small proportion of the world's deserts equipped with CSP plants could theoretically satisfy the total current global energy need, with the potential to provide new electricity supplies for developing countries and to speed up the switch to non-petrol cars.

CSP technology is proven, as is the high voltage direct current transmission system needed to transmit power long distances from deserts to centres of population. The high build costs of CSP are offset by the low running costs compared to conventional energy sources; state subsidies and targets are now stimulating serious investment across four continents.