

# CONCENTRATING SOLAR POWER

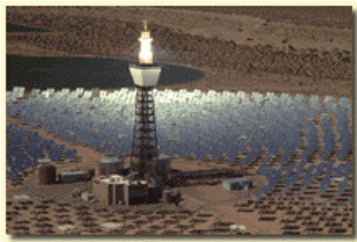
**A huge source of clean electricity for Europe (EU), the Middle East (ME) and North Africa (NA) – EUMENA**

[www.mng.org.uk/green\\_house/renewable\\_energy/csp.htm](http://www.mng.org.uk/green_house/renewable_energy/csp.htm)

**Enormous quantities of energy fall as sunlight on the world's hot deserts and 'concentrating solar power' (CSP) is a proven technology for tapping in to it** (see, for example, the website of the US Government's Department of Energy at [www.eere.energy.gov/solar/csp.html](http://www.eere.energy.gov/solar/csp.html)). **CSP**—which is very different from the better-known photovoltaics—is a relatively simple, mature and practical technology that, with the right political and financial impetus, can be brought into play very soon.

**MIRRORS CONCENTRATE DIRECT SUNLIGHT TO CREATE HEAT AND GENERATE ELECTRICITY**

**THERE ARE METHODS FOR STORING SOLAR HEAT SO THAT ELECTRICITY MAY BE GENERATED RIGHT THROUGH THE NIGHT**



**Power Tower**



**Dish/Engine System**



**Trough System**



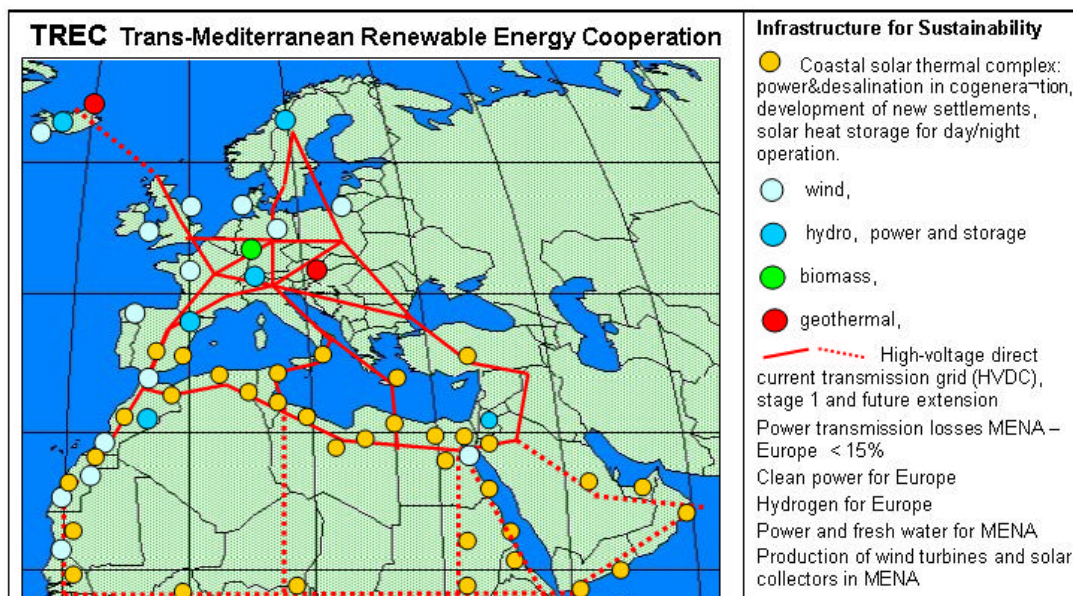
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(continued overleaf)

## IS CSP RELEVANT TO THE UK? **YES!**

**IT IS FEASIBLE AND ECONOMIC TO TRANSMIT ELECTRICITY TO THE WHOLE OF EUROPE VIA HIGH-VOLTAGE DIRECT CURRENT (HVDC) POWER LINES (MANY OF WHICH ARE ALREADY IN PLACE).**

**SOLAR ENERGY MAY ALSO BE TRANSPORTED AS HYDROGEN**



Some detailed projections prepared for the **German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU)** show how, even allowing for increases in demand for energy, **a combination of CSP with other technologies could allow Europe to cut CO<sub>2</sub> emissions from electricity generation by about 70% by the year 2050, and phase out nuclear power at the same time.**

**CSP BONUSES:** CSP can yield much more than inexhaustible and secure supplies of pollution-free electricity:

- **Shading** for buildings, car parks, factories, or stables for animals to help keep them cool.
- Waste heat used for **desalination of sea water** or for **air conditioning**.
- **Horticulture** out of the harshness of direct tropical sunlight, using desalinated sea water.
- **Jobs** and **earnings** throughout EUMENA.

Further information, with links to other sources, is at:

[www.mng.org.uk/green\\_house/renewable\\_energy/csp.htm](http://www.mng.org.uk/green_house/renewable_energy/csp.htm)

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