



Press Statement by German Association for The Club of Rome (DGCoR)
at the Energy Forum of the Hanover Industrial Fair April 23rd and 24th, 2008.

Digital Version: www.DESERTEC.org/downloads/articles/press_release_en_08.doc

DESERTEC: 10,000 Solar GigaWatts – Clean Power from Deserts for the World

At the Energy Forum "DESERTEC: 10,000 Solar GigaWatts from deserts for the world", of the Hanover Industrial Fair 2008, experts from solar power industry have stated, that industry would be capable of deploying enough solar power plants to provide about 50% of the global power demand as clean power from deserts, by the year 2050:

"Based on our present knowledge and available technologies, we are convinced that concentrating solar thermal collectors (CSP) of about 10,000 GW, as necessary for clean power from deserts for global energy and climate security, could be produced in a world-wide effort up to 2050. Adequate policies are required.

Setting up the necessary production capacities for materials and components we consider as major business opportunities."

Later on, even more could be produced if needed to supplement the other renewable energy sources. Solar energy in deserts is by far the largest source of energy on earth. It is clean, over-abundant and inexhaustible. The technology of concentrating solar thermal power (CSP) can also deliver solar electricity at night. It is proven and can now be produced for mass deployment. At good solar sites CSP power is already cheaper than power from oil power plants.

1,300 characters (incl. blanks), 207 words, 24 lines

Deserts to power the World

A bold plan to power the world from areas of desert was discussed by technology experts at a conference during the Hanover Industrial Fair 2008. Electricity may be generated in desert areas using mirrors for concentrating sunlight and using the resulting heat to create steam to drive turbines and generators, just like a conventional power station. Solar electricity may be transmitted to where it is needed using highly-efficient 'HVDC' transmission lines. Over 90% of world population can be reached.

"These technologies are well-established and ready to use now" said Dr. Gerhard Knies, coordinator of the 'TREC' international network of scientists and engineers that have developed this 'DESERTEC' plan. "The potential is absolutely colossal. In principle, all of the world's energy needs could be met from less than 1% of the world's desert areas, although it would be advisable to develop other sources of renewable energy as well."

At the Energy Forum an international panel of experts did discuss how production and installation of CSP collectors may be ramped up for 10,000 GigaWatts – to supply about half the electricity that the world will be using in

2050. "Allowing for the time needed to get things moving, the world will need to be installing about 1 GigaWatt of solar collector capacity every day over 30 years" said Dr Knies.

"We have the technical know-how and the industrial capability." said Dr Knies "This has been confirmed by the experts. With the right framework of incentives, there will be no shortage of investors to fund these developments. Inexhaustible sources of solar power like CSP are on their way to becoming cheaper than energy from dwindling supplies of fossil fuels. The main thing that is missing at present is an understanding of how urgent it is to replace dirty and dangerous sources of power with clean and safe sources like CSP. If we manage to do the unavoidable now, we may avoid the unmanageable to come tomorrow."

1,990 characters (incl. blanks), 327 words, 33 lines

Information for Pressmen:

Key facts:

- Every year, each square kilometre of desert receives solar energy equivalent to 1.5 million barrels of oil. Multiplying by the area of deserts worldwide, this is several hundred times the entire energy consumption of the world.
- The key technology for tapping in to this cornucopia is the simple proven technique of "concentrating solar power" (CSP): using mirrors to concentrate sunlight to create heat and then using the heat to raise steam to drive turbines and generate electricity, just like a conventional power station. Solar heat can be stored so that electricity generation can continue at night or on cloudy days.
- Using CSP, less than 1% of the world's deserts could generate as much electricity as the world is currently using.
- It is feasible and economic to transmit solar electricity for 3000 km or more using highly-efficient 'HVDC' transmission lines.
- It has been calculated that 90% of the world's population lives within 2700 km of a desert and could be supplied with solar electricity from there.

Further information:

- The Energy Forum was held at the Hanover Fair "Halle 27 – Stand A 34" on the 23rd and the 24th of April 2008. **Press conference on 24th of April 12:15 – 12:45.**
- The programme of the Forum: http://www.desertec.org/downloads/10000_solargigawatts.pdf
- The website for the Hanover Fair is at http://www.hannovermesse.de/homepage_e
- These DESERTEC proposals are underpinned by research at the German Aerospace Centre (DLR). The 'TRANS-CSP' and 'MED-CSP' reports about the DESERTEC concept may be downloaded via links from <http://www.trec-uk.org.uk/reports.htm>
- The Trans-Mediterranean Renewable Energy Cooperation (TREC) is an initiative of the Club of Rome. More information about TREC and the DESERTEC concept may be found at <http://www.DESERTEC.org/> and at <http://www.trec-uk.org.uk/>
- There are pictures of CSP plants at <http://www.trec-uk.org.uk/pictures.htm>
CSP projects around the world may be seen on Google Earth via a link from http://www.trec-uk.org.uk/resources.htm#CSP_GE

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