

“ Within **6 hours** deserts receive more energy from the sun than humankind consumes within **a year**. ”

*Dr. Gerhard Knies*

The **red square** represents the total surface needed to provide the **worlds total electricity demand**.

In reality numerous CSP-Plants will be spread in the deserts all around the globe.



## ABOUT DESERTEC

Sufficient clean power can be generated in the world's sunny deserts to supply mankind with enough electricity on a sustainable basis. DESERTEC is an integrated concept which includes energy security and climate protection as well as drinking water production, socio-economic development, security policy and international cooperation.

The DESERTEC Concept "Clean Power from Deserts" was originally developed by a network of politicians, academics and economists around the Mediterranean, from which the DESERTEC Foundation has evolved. The non-profit DESERTEC Foundation promotes the fast implementation of its concept in all suitable regions of the world. In 2009 the DESERTEC Concept gained a lot of attention when the DESERTEC Foundation founded the industrial initiative Dii GmbH together with partners from the industrial and finance sectors. The mission of Dii is to accelerate the implementation of the DESERTEC Concept in the Mediterranean region.

## THE DESERTEC CONCEPT

The DESERTEC Concept was developed by a network of politicians, scientists and economists from around the Mediterranean, from which arose the DESERTEC Foundation.

**Choosing the best locations offers the greatest benefits in fighting global warming**

A final switch towards renewable energies will, with high probability, be a combination of global and local, centralized and decentralized approaches integrating all forms of renewable energies. But when it comes to combating global warming, the leverage of investment in renewables is greatest when the best sites are used. Plants in these locations can produce more clean energy than those in less suitable sites.

This is why the basic idea of the DESERTEC Concept is to generate electricity from renewable sources at the places where they are most abundant. A high-voltage direct current grid carries the electricity generated from renewables over long distances with a minimum loss of power, making it available wherever it is needed. This can provide the world with an economical, safe and sustainable supply of clean electricity.

### **Energy is available in abundance and we have the technology to use it**

Within six hours, deserts receive more energy from the sun than humanity consumes within a year. The sun shines all day on a belt that encompasses the globe either side of the equator – and with the [technology that is now available](#), most countries could supplement their energy mix with clean electricity from deserts. Thanks to heat storage tanks, solar-thermal power plants in deserts can supply electricity day and night, ideally supplementing electricity grids that rely on fluctuating energy sources such as photovoltaic and wind power.

### **DESERTEC combines climate protection and energy security with development and security policy**

DESERTEC is a comprehensive solution that not only aims to cover our increasing energy needs, but also to reduce carbon emissions before global warming gets out of control. Alongside climate protection and ensuring the energy supply, it also has many benefits in terms of development and security. The scientific basis of the DESERTEC Concept is described [here](#).

## **WHO'S BEHIND DESERTEC?**

The DESERTEC Foundation was established on 20 January 2009 as a non-profit foundation. Founding members of DESERTEC Foundation are the German Association of the Club of Rome, members of an international network of scientists as well as committed private individuals.

Our mission is the fast global implementation of the DESERTEC Concept to ensure the earth will be able to support 10 billion people in 2050. For this reason we have already founded the industry initiative Dii GmbH for the Mediterranean region and the DESERTEC University Network. In the future, we will focus on further desert regions and build social networks to support the aims of DESERTEC.

### **The DESERTEC Foundation stands for ...**

- A global civil society initiative aiming to shape a sustainable future
- A concrete and realizable solution, which arose in the aftermath of the nuclear disaster in Tschernobyl
  - Climate protection and climate security by global transition to renewables, thus the complete change from fossil and nuclear fuels towards a renewable energy supply
  - A combination of all available forms of renewable energies (sun, wind, water, geothermal and biomass)
  - The combination of centralized & decentralized, of global & local approaches to solve the energy problem
  - Supply security (electricity, food, water) through energy security and therefore prevention of resource-related conflicts
- Advocacy efforts in all parts of society, politics, economics and science

### **We are working for the worldwide implementation of DESERTEC. In concrete terms this means...**

- Intense political work with national ministries, Arab League and EU
- Active public relations via website, social media and press
- Books, films, editorials regarding the themes DESERTEC and global transition to renewables
  - More than 300 international lectures, meetings, talks in universities, schools, congresses, with associations & companies

- Initiating Dii GmbH, an industrial consortium for the implementation of the DESERTEC Concept in the Mediterranean area
- The build-up of an international DESERTEC University Network (DUN)
- Further studies for the implementation of DESERTEC in different regions of the world
- State-funded projects in cooperation with research facilities to promote and foster the expansion of renewables in the Middle East and North Africa