**Energy efficiency – saving resources**

**Efficient energy use helps to safeguard valuable energy resources for the future.**

A continuously rising energy demand combined with increasingly limited natural resources are challenging energy suppliers, industry as well as consumers to rethink how we produce and use energy. Energy efficiency, smart energy use, and energy savings are keys to meeting this challenge in a sustainable way.

Energy efficiency involves the entire chain of energy conversion – from effective generation to transmission and distribution of electrical energy to economical use in industry, transportation, buildings, and other consumers. Especially in the hot and sunny countries of the Gulf region, renewable sources like solar energy can play a key role. The reuse of water in this dry region is also crucial.

As a region that is building its future on some of the most advanced technology, Siemens holds the solutions to forward deliver highest efficiency. Siemens is the only company worldwide that supports customers with its own products and solutions along the entire chain of energy conversion. At the [Wetex Exhibition 2012](http://www.energy.siemens.com/nl/en/energy-topics/tradeshows/wetex.htm), held from March 13 to 15 in Dubai, we featured highlights from our portfolio of energy-saving products.

The company has entered a long-term strategic partnership with Abu Dhabi’s renewable energy initiative “Masdar”. Furthermore Siemens is a founding member of the [Desertec Initiative](http://www.desertec.org/) to supply sustainable power for Europe, the Middle East and Northern Africa based on renewable energy sources.

**Power generation, transmission, and distribution**

In a world of climate change and limited fossil fuel resources, renewable energy sources are playing an increasingly important role. In the Middle East, there is an especially vast potential for solar power.

Siemens respects the planet's scarce resources driving us to make energy ever cleaner and greener. We create technologies enabling our customers to make energy sustainable, available and affordable for everyone, anywhere. For example, we are participating in the Desertec initiative to provide sustainable power from the Middle East and North Africa to Europe. The Desertec concept encompasses wind farms, solar thermal power plants, and transnational power highways to efficiently carry the clean electricity to Europe’s load centers. The Siemens portfolio includes steam turbines, solar receivers for solar thermal power plants, solutions for high-voltage direct-current (HVDC) transmission and distribution as well as smart grids. Additionally the company is the world leader in offshore wind farms.

Renewable energy sources like wind and solar fluctuate depending on seasons and time of day. “Smart grids” are needed to accommodate these fluctuating power feeds. Siemens is optimally positioned to supply all components needed for an intelligent grid infrastructure. In the first phase of the visionary Masdar City project an innovative power grid, combined with advanced and energy-efficient building technologies, is going to be implemented.

The HVDC transmission system is an efficient, environmentally friendly means of transmitting power over great distances. HVDC minimizes both line costs and losses, thereby lowering the impact on the environment. And it is the only way to interconnect technically incompatible power grids. The Siemens systems are characterized by enhanced reliability, lower energy consumption, and reduced space requirements thanks to laser-pulsed power converters and 80 percent fewer components in the electronic control system. In Saudi Arabia, Siemens will supply technology for the stabilization of the high-voltage transmission network at the Hiteen, Quassim and Afif substations.

**Small footprint and short installation times**

Gas-insulated switchgear (GIS) is another solution that helps to reduce transmission losses and save energy. The highly reliable GIS has a small carbon footprint, short installation times, high resistance to contamination, and minimal maintenance requirements. In the United Arab Emirates, Siemens supplied gas-insulated high-voltage switchgear for an air separation plant in Abu Dhabi. And the Abu Dhabi Transmission & Dispatch Company (Transco) has chosen Siemens equipment for the expansion of the emirate’s electricity grid.

In Qatar, Siemens has received major orders from the state-owned Qatar General Water & Electricity Corporation to supply substations and switchgear to expand the national power distribution network.

**Climate Scientists Saw 'Year of Extremes' in 2011**

**Greenhouse gases from human pollution sources reach new high.**

*Jul. 10, 2012***by Kerry Sheridan, AFP**

Severe droughts, floods and heat waves rocked the world last year as greenhouse gas levels climbed, likely boosting the odds of extreme weather events, international scientists said Tuesday.

The details are contained in the annual "State of the Climate in 2011" report, compiled by nearly 400 scientists from 48 countries and published in the peer-reviewed Bulletin of the American Meteorological Society.

The report itself remains "consciously conservative" when it comes to attributing the causes of certain weather events to climate change, and instead refers only to widely understood phenomena such as La Nina, it said.

However, it is accompanied for the first time by a separate analysis that explains how climate change may have influenced a selection of key events, from droughts in the United States and Africa to extreme cold and warm spells in Britain.

"2011 will be remembered as a year of extreme events, both in the United States and around the world," said Kathryn Sullivan, deputy administrator of the National Oceanic and Atmospheric Administration (NOAA).

"Every weather event that happens now takes place in the context of a changing global environment," she said, adding the reports shed light on "what has happened so we can all prepare for what is to come."