

How do we make no difference?

New technologies help make the entire energy business more environmentally compatible than ever before.

The need for environmentally compatible technology, especially in the field of energy, has never been greater. But the real challenge is to turn this need into opportunity. That's why we are focused on supplying highly efficient, reliable, and sustainable products, solutions, and services across the entire energy conversion chain. Our NetConverter® power conversion system, for example, helps ensure a more constant power output from wind turbines. And our trendsetting CHP (combined heat and power) technology has made efficiency rates up to 95 percent a reality.

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Answers for energy.

SIEMENS

Dear Reader,

The general well-being and prosperity of humankind will ultimately depend on how the world meets and masters one of its biggest challenges: securing reliable, affordable and eco-friendly energy supplies. Energy is the basis for progress and security, and inadequate or undependable supplies hinder economic growth. The world's current energy supply system is not fit for meeting future demands. Traditional natural resources are dwindling while demand for power soars and carbon emissions continue to increase. In fact, greenhouse gas emissions have climbed four times faster since 2000 than in the previous decade, despite all efforts to reduce them. Three key factors promise to open the door to sustainable energy supplies: an optimal energy mix, greater efficiency along the entire energy conversion chain, and an intelligent power grid infrastructure. Our first issue of *Living Energy* centered on the ways in which we can benefit

economically and ecologically by improving energy efficiency. In this issue, renowned experts and prize-winning journalists focus on optimization of the energy mix – and not only in the cover story. In his essay, American scientist and Pulitzer Prize winner Daniel Yergin takes a closer look at the hydrocarbon-dominated energy system in the USA, the search for green alternatives, and Barack Obama's "new energy economy." To achieve maximum environmental compatibility, efficiency and security, the energy mix must be adapted to the realities of the individual regions. In coal-rich regions, for example, power plants fitted with carbon capture and storage technology can ensure clean power generation. In regions blessed with abundant sun, large-scale solar fields offer an ideal combination of efficient and eco-friendly energy. Without question, renewable energies must and will make a growing contribution to the world's energy supplies.

Yet, for decades to come, base loads will still have to be secured with fossil fuels. Our engineers are working hard to improve existing technologies and develop pioneering and innovative products for the new age of electricity. These include, for example, high-efficiency gas turbines that can quickly compensate for supply gaps during slack periods. In order to offer our customers an optimal energy mix at all times, we are working throughout the world at our own production and R&D facilities. By keeping in close contact with our customers, we can precisely tailor our solutions to their specific needs. I hope you will find this mix of articles to be a stimulating and interesting look at the world of energy!

With best regards,



Wolfgang Dehen,
Member of the Managing
Board of Siemens AG
and CEO of the Energy Sector

