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A European Community for Renewable Energies

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According to an ambitious initiative launched by some of Europe's largest companies, the Sahara will become a power hub to provide renewable energy to Europe by the mid of the century. This project should become a cornerstone of a new European Community for renewable energies, argues Ralf Fücks, Co-President of the Berlin based Heinrich Böll Stiftung. In a carbon constraint world, this new effort could make Europe a leader in the energy economy of the 21st century.

Renewable energies are set to be tomorrow's big business and spearhead the green industrial revolution. An announcement unveiled that a consortium of German major corporations, among them Munich Re, Allianz, Siemens, and RWE, are embarking on the ambitious project to capture solar energy in the Sahara. While one portion of profits will go towards the economic and social development of the region in Northern Africa, another portion is to cover some 15% of Europe's electricity needs by 2050. The project is estimated to require investments in the range of 400 billion Euros. Although <u>Desertec</u>, as the project is called, still has to overcome many technical, political, and financial hurdles, it will mark a milestone toward Europe's goal of achieving full reliance on renewable energies. Solar energy from the North African desert can be sold at competitive prices. Moreover, the thermal solar collectors will allow to store and retrieve the produced energy around the clock as needed. In any event, Desertec is evidence that even intransigent energy magnates such as RWE are now taking on renewable energies as a promising business sector.

Nevertheless, we should not delude ourselves with false hopes of miracles: Solar energy from the Sahara is not the cure-all solution to a climate friendly energy future for Europe. If we want to limit the effects of climate change to a bearable level and maintain the technology leadership for renewable energies, all the while creating more jobs, Europe's entire power grid will have to be revamped for renewable energy sources. This is, in essence, what the climate policy goals of the European Union call for: The targeted 80 to 90 percent reduction of CO2 emissions requires zero emissions in energy production. However, Desertec can only make a modest contribution to this goal. The lion's share of Europe's energy requirements will have to be captured from renewable energy sources from within Europe by the middle of the century.

The capacity for this exists. Diverse scientific studies show that Europe would be able to cover its electricity needs in full - and at acceptable costs - with renewable energies if the necessary political adjustments were made. Currently Europe is only using some 11% of the economically usable potential for renewable energy sources. Though Europe has medium-term binding energy and climate policy goals, it's the individual EU member states who are asked to comply

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with. What is missing is a coherent overall concept, a pan-European strategy for the transition from a fossil to a renewable energy economy. However, national sectionalism rather than a pan-European vision prevails in the power supply sector. How could this pan-European vision look like?

Because the wind is not always blowing and the sun not always shining, a transnational super grid will be required in order to combine and allocate renewable energy sources throughout Europe. In this way, when there is a dead calm at the North Sea, Germany's electricity needs could be met with power from Scandinavian or Alpine hydro power plants, combined with flexibly deployable biogas power plants and decentralized supply facilities within Germany. The infrastructure of an internal European market for renewable energies thus relies on an intelligent and controllable smart grid. In order to drive technical innovation in this direction, we need cross-national research as well as the establishment of shared demonstration plants, similar to what Euratom offers in the field of nuclear power.

In short: Accomplishing these regulative and coordinating tasks at the pan-European level requires a European Community for Renewable Energy. This task force is not meant to replace the individual countries but rather to give them a common direction and to promote cooperation. Such a joint venture will also serve to give European integration a new boost. Following the European Coal and Steel Community of the 1950s and Euratom of the 1970s, it is now the time to undertake a new effort to make Europe a leader in the energy economy of the 21st century.

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