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# Fukushima and the liberation movements in North Africa: What future for Desertec and “electricity from the desert”?

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# The Current Column

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## Fukushima and the liberation movements in North Africa: What future for Desertec and “electricity from the desert”?

Bonn, 4 April 2011. We are witnessing the turn of an era: since the beginning of the year we have watched the courageous uprisings and political upheavals in the Arab world, first with incredulity and astonishment, now with admiration. With extreme concern we are also following the nuclear apocalypse in Japan caused by the disastrous earthquake and tsunami of 11 March 2011. At first glance the two events have nothing to do with one another. But both are highly relevant to the future organisation of energy supply.

### History is being made

What seemed unthinkable before 11 March became possible after Fukushima and in the run-up to the *Land* parliamentary elections on 27 March: the simultaneous shut-down of the oldest German nuclear power stations. As late as 17 February 2011 the CEO of the RWE utility company, Jürgen Großmann, warned in the *Süddeutsche Zeitung* that “the nuclear energy ‘bridge’ must not be too short, or it will collapse.” And, in Strasbourg on 8 March 2011, the German Economics Ministry presented a report that referred to the nightmare of Germany ceasing to be an industrial location if the EU unilaterally raised its CO<sub>2</sub> reduction target to 30 per cent.

The main question we face today is how the expansion of renewable energies and electricity supply systems can be speeded up. In this context the Middle East and North Africa (MENA), with their considerable wind and solar energy potential, are also attracting attention.

### How are the events in the Arab world affecting “electricity from the desert”?

The upheavals in the Arab world have so far led to the fall of two presidents who had ruled autocratically for decades. Inspired by the events in Tunisia and Egypt, the masses are taking to the streets in other Arab countries, too, demanding freedom, democracy and better living conditions. Alarmed, the autocrats (still) in power are reacting with force, promises of reform and good deeds for the people. From the reform-oriented King of Morocco, for example, came both the order to double food and fuel subsidies and an announcement of constitutional reform, while the absolutist King of Saudi Arabia

described emerging protests as un-Islamic and launched a US \$ 36 billion subsidy programme. The rulers of other Arab countries, too, are trying to hang on to power with generous subsidy programmes.

The recent massive expansion of the subsidy programmes for carbon-based fuels and energies in the MENA countries may slow down the ambitious plans for electricity from the desert: the Mediterranean Solar Plan and the Desertec Industrial Initiative (Dii). After all, even in 2009, well before the uprisings in the Arab world, global fossil energy subsidies amounted to US \$ 312 billion. While renewable energy sources (RES) entail capital-intensive investments, but limited follow-up costs, the cost of the primary sources of conventional energies continues to be incurred. The higher the subsidies on fossil primary energy carrier, then, the greater the difference from the cost of generating electricity from RES and the less incentive there is to take energy efficiency measures.

### Fear of stranded investments

Another important factor for the implementation of RES projects is a safe legal and administrative environment. An investor fears nothing more than stranded investments. Germany and 50 other countries provide this safe environment because they apply the principle of declining feed-in tariffs. National feed-in tariffs in the MENA countries would be the way to finance RES projects, but they are unlikely after the political upheavals and the massive expansion of subsidy programmes for conventional energy sources. One way out is suggested by the EU’s Renewable Energy Directive of 2009, Article 9 of which lays down rules on the import of “green electricity” from non-EU countries. The question that then arises is how far new RES capacities will actually be installed to supply electricity to the desert countries or whether they are not intended to be used to earn export revenues from the outset.

### First Desertec reference project in Morocco

In February 2011, despite or perhaps even because of the upheavals in the Arab world, the Desertec Industrial Initiative announced a first call for tenders for a 500 megawatt (MW) reference project in Mo-

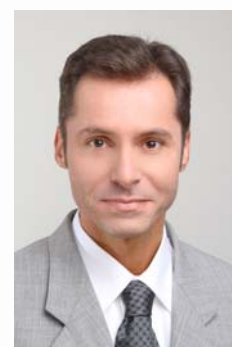
morocco: the plan is to generate 400 MW from concentrated solar power (CSP) and 100 MW in a photovoltaic power station. However, Dii will be neither investing in nor operating the power stations. What financing considerations are there for the projects that have been announced? The proposed export figures provide the answer: 80 per cent of the larger CSP share, which will, above all, be capable of providing baseload power, is to be exported; the smaller, photovoltaic share, which will also be suitable for decentralised use, is to be consumed predominantly in Morocco. This makes it clear that Article 9 of the EU's RES Directive is to apply, which means that Europe will be the main beneficiary of the projects. From the development standpoint, however, Desertec's aim should not be to supply electricity to Europe, but to meet the development requirements of the South, since the non-EU Mediterranean countries are in great need of development, and one of the prerequisites for development is energy.

While, then, the budgets for the subsidisation of conventional energies, inflated by the political changes in the Arab world, are hampering the financing of RES projects geared to supplying energy to the MENA countries, the nuclear disaster in Japan will, on the whole, accelerate the expansion of renewable energy sources. But even in the future the financing of RES projects and the marketing of their output in developing countries will be obstructed by

the high subsidies on fossil energy sources and the absence of a favourable investment environment. The hope associated with the establishment of the private-sector Desertec consortium, that RES projects in developing countries will become normal business transactions in the future rather than typical development projects, dependent on concessionary financing by the development banks or on official development assistance, has yet to be fulfilled.

### **What we need: intensified energy partnerships with the emerging and developing countries**

The Desertec project is exemplary in one respect: it meets the demand from the development community to involve companies from the South from the outset. Now everyone must do their homework: subsidies for conventional energy sources must be reduced rather than raised and, as decided at the Pittsburgh G-20 Summit, phased out altogether. The capital-intensive renewable energy sources need a clear legal and investment environment so that their expansion may be stepped up, with a view both to their replacing fossil and nuclear energies in the medium to long term and to achieving the necessary climate protection targets. And finally, the countries of the South need access to innovative energy generation capacities for the development of sustainable energy infrastructure.



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