

E.ON WETTBEWERB

ENERGIE und FRIEDEN

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How energy and peace are related is a rather simple reasoning on paper. Having access to cheap and reliable sources of energy is a crucial trigger for economic growth. And economic growth is one of the most important factors for a country to develop and sustain a stable government, creating a positive environment to foster cooperative relationships towards other nations, thus decreasing the risk of war. However, in developing and developed countries, energy is still the 'nerve of war' and the international community keeps on struggling when it comes to dealing with energy security. Even more so in an economy that has to cope with global issues such as the growth of the economic titans, global warming or complex diplomatic situations, for example the energy dependence of certain countries to less than transparent democracies.

There is an often misguided concept according to which nations should work towards complete energy independence in order to reduce the risk of political instability between countries. This would mean that every country should have the capacity to produce a sufficient amount of energy to sustain its domestic economy and function as an autonomous energy entity. To attain this autonomous state, most countries would not be able to rely solely on the extraction of fossil fuels and therefore would have to invest enormous amounts in the renewable energy sector. Even without considering the financial feasibility and the time pressure countries are currently under, the possibility of achieving such a state is nothing short of utopian. In today's global economy, no country can be an island when it comes to its energy production, its political situation and its business sector. Every single one of these aspects is to some extent linked to the global business community and the international political community.

Contrary to aiming at reducing international exchanges, it seems to be more appropriate to rather encourage the multiplication of these relationships, in order to achieve a diversified portfolio of energy sources, coming from different geographic locations. Indeed, the issue does not so much lie in the international exchanges themselves, but rather on the risk management associated to them. Until recently, by focusing on the extraction of fossil energies, the global economy was suffering from an unbalanced power between nations, as some countries were more powerful than others without however complying with international laws. This is why, energy companies should take the current economic context as an opportunity to develop the renewable energy sector and the technologies associated. These new energies would help to reduce the abusive power of a very limited number of countries. It would also lead to more balanced exchanges by encouraging the sharing of infrastructures as shown by the recent cooperation project between Norway and Germany. These two countries are currently working on a transnational grid that would allow them to share their

production of renewable energies in order to overcome the problem of production intermittence. Dealing with energy issues depends also largely on cultural background and the policies that have been favored by national governments over time. However, by turning into a global issue, a common direction should be adopted in order to improve cooperation through the development of transnational infrastructures such as a “European smart supergrid” that would allow the allocation of renewable energies throughout Europe, according to the different consumption patterns.

Furthermore international projects present interesting economic and social impacts and strengthen relationships between nations, as shown by the development of projects such as *DESERTEC*. Indeed, by fostering international cooperation, the Trans-Mediterranean Renewable Energy Cooperation can help to decrease the energy risk of Europe and leads towards more transparency between nations. This initiative is also setting the ground for further developing international cooperation, reaching a more stable diplomatic situation with the Mediterranean region and developing a shift of power regarding the Russian gas pipelines and the OPEP markets.

But when it comes to energy and peace, the interesting and complex case of sub-Saharan Africa cannot be overlooked. Energy, and more particularly electricity, constitutes one of the major challenges in terms of economic growth as well as eventually bringing peace to the continent. Indeed, even though the African continent benefits from various energy sources, most sub-Saharan countries still have a very poor access to electricity. In 2008, the production capacity of the 47 sub-Saharan countries (excluding South Africa) was about 28 gigawatts, according to the International Monetary Fund. It means that only 24 % of the population had access to electricity, not even considering the large amount of energy needed by the different industries. Furthermore the average price stays relatively high at 0.13 US dollar per kWh, which ironically enough does not even cover the costs of production in most cases. Contrary to the idea that bureaucracy and corruption would be responsible for the negative impact on productivity in sub-Saharan countries, Escribano, Guasch and Pena (2008) wrote that 20 to 60 % of this negative impact was actually due to the electricity infrastructures itself. As a direct consequence, this unreliable access to electricity has a strong impact on the development of social services, the quality of life and the level of healthcare.

Most of the sub-Saharan countries have economies too small to develop efficient infrastructures and energy markets too narrow to benefit from large scale production efficiencies. As over the border exchanges are relatively inexistent, most of these countries

use production infrastructures that are technically inefficient. As most of the national grids are overloaded, the current infrastructures are unable to answer the fluctuations of demand. It leads most governments to put in place short term leasing agreements with some global energy providers for back-up production. As much as it might be interesting financially for these large players of the energy sector, it overlooks the opportunity of developing a longer term and eventually more rewarding agreements for both parties.

Not having a reliable and cheap access to electricity constitutes one of the main factors explaining why foreign companies do not consider branching out in sub-Saharan Africa, which evidently constitute a strong obstacle for the economic development and thus to the implementation of long term peace. Energy companies fail to notice the major economic potential of the African continent, and are still considering it as short term production contract that is not worth the time and efforts needed to develop a more attractive business environment. Instead of considering the African continent as a whole, it is interesting for energy companies to segment the opportunities. They would not have to deal with the very complex endeavor of reorganizing and renovating the national grids and implementing major energy projects in unstable regions. However, energy companies should develop pilot projects focusing mainly on the implementation of micro-grids. In order to deal with the issue of energy transportation and the rather high amount of losses occurring, companies should work on improving the efficiency of small island projects, considering that they can be added to existing network infrastructures down the road. Even though working on micro-utility does not allow companies to benefit from economies of scale, it is an opportunity to have a clearer read of the potential business plan and develop more efficient projects. Energy companies could thus introduce a more comprehensive approach to the local communities by understanding the local specificities, local customers, employees' training needs, processes of local administrations and so on.

Is it the role of energy companies to deal with the economic growth of developing countries and are they responsible for improving local social conditions? I strongly believe that all companies have a responsibility to integrate the needs and expectations of their stakeholders in their decision making process. It is even more so for energy providers as they are in the front line of most of today's polemics, from global warming to sustainable growth, from transferring competencies to developing countries to handle the energy demands of China and India. Furthermore, their line of work entitles them to suffer from a great deal of scrutiny from financial markets, industries and the public at large, which constrain them greatly. That is why the role of energy providers towards maintaining world peace should be organized around three main axes: investment in renewable energies,

transfer of competencies to local partners and employees and management of social and economic impacts related to their activity, locally.

Clean technologies constitute a fast-growing market and might be one of the main focuses of today's economy. The development of these technologies needs a strong commitment from energy firms when it comes to financing. Unfortunately, by attracting a strong attention from the media, these technologies have to prove their high performance and cheap production costs from the first generation on in order to avoid large fluctuations of their financing opportunities. That is why large energy companies have a responsibility to commit to the development of these technologies. Indeed, they have the financial resources, the expertise and the production capacity to enhance and sustain the growth of this sector. By doing so, they could help developing countries to access these new technologies and help decrease the risk associated with energy interdependencies. This leverage for development can be created by favoring the financing of smaller structures through the creation of venture capital entities within existing energy companies. They would therefore be more suited to develop entrepreneurial projects that could not only be applied in developed countries but also resolve specific issues in developing countries. By having venture capitalist structures, energy companies can identify and finance young companies worldwide during their start-up phase and provide established companies with additional capital for their growth plans during the expansion phase.

Furthermore, energy companies have to deal with local dynamics and understand the agenda and needs of the local population. Instead of coping with complex expatriation processes, companies should understand the importance of investing in local education and thus optimizing local competencies. This would help them to increase efficiency locally and have a better understanding of local imperatives. By developing a longer term strategy with local talents and customers, they might also create long term relationships and be less susceptible to suffer from unstable political situations.

Energy companies have to integrate the imperatives of sustainable development by integrating all potential consequences of implementing a new energy project. Beyond the project itself and its related cost/profit structure, it is more and more important to understand what can be done in order to provide benefits for the local economy. By implementing a long term strategy, companies can build infrastructures such as schools, hospitals, roads and so on having a direct impact on the well-being of their employees, customers and developing closer ties to local governments. Indeed, as I mentioned previously, large and global companies have a bigger role as there are subject to the international scrutiny. Their decision

to therefore settle in one country and invest in infrastructures can also send a strong message to the international community concerning the stability of the country. By intervening in different countries certain companies can also leverage their activity in order to sustain cooperation between some countries and reinforce the efforts of regional pools such as East African Power Pool or Southern African Power Pool, favoring over-the-border electricity exchanges.

As I mentioned previously, I do believe that by the sector they are involved in, energy companies have a crucial role in implementing and sustaining peace. However, the limits of their involvement are very hard to evaluate considering the complexity and intricacy of today's global energy situation. Should companies act where the governments are failing? And if so, what kind of accountability are they responsible for, should their endeavors fail? We have to keep in mind that the first objective of a company is to be sustainable by achieving a profitable financial situation and therefore energy companies are often involved in the development of peace only as much as it secures their activity, hence a rather short term focus. That is why I do believe that the energy sector cannot tackle these issues on its own and must develop areas of cooperation with governments in order to implement customized energy solutions and build the energy community of tomorrow.

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