

# **The Arab Revolts and the Fukushima Disaster Are Reshaping the World Energy Outlook**

by Nicolas Sarkis,  
Director of the Arab Petroleum Research Center  
and President of SolarMed

(Following is the text of a speech delivered to the General Assembly of the Arab-Swiss Chamber of Commerce and Industry in Geneva, May 5, 2011).

Your Excellencies, Ladies and Gentlemen,

I am delighted and very honored to be with you today to review the current upheavals affecting the world's energy markets and their medium- and long-term consequences. These convulsions have mainly been caused by, on the one hand, the veritable political earthquake that is shaking the Arab world, which is to say the nerve center of world oil production, and, on the other hand, the Fukushima nuclear disaster. These two events seem to be particularly crucial as they are liable to speed up what is generally termed the great energy "transition". In some respect, this transition recalls the shift that took place around a century ago with the transition from coal to oil as the dominant energy source. The transition now underway involves a dual shift, one of which is the slow but inescapable erosion in oil's share of world energy consumption to the benefit of other energy sources, while the second transformation is the move from polluting fossil fuels to alternative clean and renewable energy sources. All this implies, moreover, a far more rapid transition than previously thought from low-cost energy to increasingly expensive energy.

The underlying reasons for this development were well summarized in a recent World Energy Outlook published by the International Energy Agency (IEA), according to which: *“The world’s energy system is at a crossroads. Current global trends in energy supply and consumption are patently unsustainable - environmentally, economically and socially - and must be altered.”*

The authors of the IEA’s report could obviously not foresee the two new powerful factors of change that we have been living with for some months and which are accelerating the energy transition that has been taking place for some years. These two factors will effectively have a considerable impact on the world energy system, which is to say on the global supply-demand balance, on prices, and on relations between producers and consumers, in other words on our everyday life and on the nature and price of the energy we all need.

The first is the wind of revolt that has suddenly started to blow over the countries of the **Middle East** and **North Africa** since the beginning of this year, shaking a region that generates one-third of the world’s oil production and fully one-half of its oil exports, as well as more than one-fifth of global natural gas exports. The second is the disaster at the **Fukushima** nuclear power station, which has quite naturally raised questions about the share of nuclear power in the world energy mix. Nuclear energy accounted in 2009 for **5.8%** of global energy consumption and its share was expected to rise to **7.6%** by 2035. After the latest catastrophe in Japan, this forecast looks doubtful, since eyes are rapidly turning to other energy sources to fill the gap.

The popular uprisings in Arab countries and the Fukushima disaster have already resulted in a sharp rise in international oil prices, with **Brent** having soared to \$125/b, and have revived concerns about the security of world energy supplies. Some observers have gone so far as to point to the specter of a new “oil shock”.

It is too early to make a more or less precise assessment of the future effects of these events. All that one can say for the moment is that, if ever there were another oil shock, it would be very different in nature from those of 1973, 1980, 1990 and 2008 nearly all of which were triggered by a confrontation between producing and consuming countries. It is not the case today. It is significant that, even before the political upheavals in the Arab world and the tsunami in Japan, oil prices were already on a strongly upward path, with the monthly value of the **OPEC** crude basket having risen from \$72.51/b in July to \$88.90/b in December 2010, a **22.1%** increase in the space of five months, despite the very comfortable levels of strategic and industrial oil stocks in consuming countries and despite the existence of some 5 million b/d of spare oil production capacity around the world.

This development, which gathered momentum under the impetus of the Arab revolts and the Fukushima tragedy, was essentially the result of concerns about the long-term supply-demand balance, as well as of massive purchases of “paper barrels” on the futures markets. These purchases, which are often described pejoratively as “speculative”, reflect the “financiarization” of the oil market, which means that the paper barrels have become an asset like any other

which investors may put in their portfolios, in the same way as gold, futures contracts on other commodities, real estate assets or hard currency reserves.

Hence, after rising by \$16/b between July and December 2010, the average price of the OPEC crude basket has jumped by a further \$21/b since the eruption of the Arab uprisings, reaching around \$110/b in March, which represents a total increase of 51% relative to the July 2010 level.

Part of that increase, estimated at some \$20/b, is usually described as the “fear premium”, which might disappear, at least partially, once the present political unrest in the Arab world has come to an end.

In the years and decades to come, the upheavals that have been seen since the beginning of 2011 are liable to alter the landscape and the outlook for world energy markets, especially in the following areas:

- The rapid development of renewable energies
- The increase in energy prices
- The opportunities for new partnerships between producing countries and consuming countries

### **1 - Added boost to renewable energies**

According to the projections produced in 2010 by the **International Energy Agency (IEA)**, the world’s energy needs were supposed to increase by 36.5%

over the 2008-2035 period, rising from 12,271 million tons of oil equivalent (toe) in 2008 to 16,748 million toe in 2035, an average increase of 1.2% per annum. Within that total, oil consumption was expected to increase the least, by 0.5% a year, reducing its share of the overall energy balance from 33.1% in 2008 to 27.8% in 2035, as against 48.5% in 1973 and 37.8% in 1985. The share of natural gas, on the other hand, was forecast to rise from 21.1% to 22.4%. The IEA also suggested that the share of nuclear energy would increase by 2.2% a year and reach 1,273 million toe in 2035, 7.6% of world energy consumption at that point. It is renewable energies above all that were already supposed to increase their share of world energy consumption the most, rising by 7.9% a year, which would boost their share of the global mix from 0.72% in 2008 to 4.2% in 2035.

It is not surprising that, since the Fukushima disaster , people have been calling almost everywhere in the world for an acceleration in the development of clean and renewable energies to the detriment of nuclear power. Such a change of direction would mean a massive transfer of investments towards unconventional oil and gas resources and towards renewable energies. In production terms, a change of one percentage point in each energy source's share of the world energy mix corresponds to an average variation of 3.2 million b/d of oil between now and 2035, equivalent to more than twice the current crude oil production of **Algeria**.

## **2 – Upward trend in energy prices**

Over and beyond their immediate impact, the popular uprisings in Arab

countries are poised to be a new factor that is putting upward pressure on oil prices for a number of reasons that can be summarized in the following points:

**a) Investments in the Arab energy sector**

Before the latest political turmoil, Arab countries were expected to invest \$430 billion over the 2011-2015 period, of which \$330 billion was to be devoted to oil and natural gas and \$95 billion to electric power. It now appears that part of these investments will be deferred or canceled, which means that the region's production and exports will grow more slowly, giving rise to fresh tensions on oil prices.

**b) Greater financial needs**

Whatever the outcome of the upheavals underway, Arab countries' energy policies and their political programs generally will have to take better account of the social and economic aspirations of people in the region. This change of direction has already begun to take shape through the measures announced by almost all Arab governments, which entail the creation of new jobs and the allocation of tens of billions of dollars to improving the living standards of their populations. The price they are paying to purchase social peace will mean a substantial increase in the financial needs of Arab countries (whether oil exporters or not) and a virtually irresistible trend towards meeting these new needs, primarily by maximizing the revenues per barrel of oil exported.

One very significant example in that respect is Saudi Arabia which, as the leading producing country, plays a decisive role in the development of oil prices. On the instructions of King Abdallah, Saudi Arabia recently announced a series of new social and economic measures entailing outlays of some \$130 billion. This means that the country now needs an oil price of more than \$90/barrel to balance its state budget. That price could well increase to over \$100/b or \$120/b if, as is very likely, similar spending plans are announced from 2012 onwards.

### **3 - Opportunities for new producer-consumer partnerships**

From now on, no Arab government can ignore the vigor with which the militants behind these Arab revolts have attacked the corruption, nepotism and waste of public funds that have been among the major scourges of the region over the past few decades. Even if not everything were to turn out for the best, it seems more than likely that the policies pursued in the future will be more oriented towards these countries' economic development. This implies new partnerships with industrialized countries within the framework of mutually beneficial relationships.

### **Conclusion**

The upheavals caused by the Arab unrest and the Fukushima disaster represent both a major new challenge and a fresh opportunity for cooperation and for reshaping relations between energy exporting countries and energy importing countries.

This is a major challenge to the extent that these two events are leading to a substantial rise in prices and major adjustments in energy strategies focused in particular on the development of new energy sources that are more costly but afford greater protection of the environment in which we live and which we must prepare for future generations.

Fortunately, however, unlike almost all the energy crises of recent decades, the current spate of unrest does not result from a confrontation between energy exporting and importing countries. It is taking place in a particular context and is creating situations that are propitious for cooperation and mutually beneficial partnerships between all countries concerned.

One very good example that illustrates the complementarity of interests between the different parties is the important projects launched in recent years for the development of solar energy in the countries of North Africa and the Middle East: the **Mediterranean Solar Plan**, **Desertec**, **Medgrid** and various national plans. Part of the energy produced will help to cover these countries' domestic needs, while part will be exported to Europe. These projects, which are necessary for all countries bordering the Mediterranean, can only be successfully implemented within the framework of a cooperation that caters for everyone's interests.

Nicolas Sarkis