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## From Energy Crisis to Energy Transition?

By Aurelia Figueroa,  
*German Development Institute /  
Deutsches Institut für Entwicklungspolitik (DIE)*

# The Current Column

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## From Energy Crisis to Energy Transition?

Bonn, 14 October 2013. 40 years after the 1973 oil crisis, energy system transition is a leading theme in energy policy debate in Germany and beyond. Both devastating and inspiring, the crisis presented an opportunity to make a change. Like the Fukushima Daiichi nuclear disaster in March 2011, it opened a rare door through which public opinion and policy makers could meet with the common purpose of emerging from a crisis. Looking back today, the 1973 oil crisis can be seen as a turning point in the energy policy debate.

The crisis had a tangible financial impact at all levels of society in embargoed nations and beyond. Prices at the petrol pump skyrocketed following the first of several production cuts and price hikes implemented by Middle East oil producing nations on 16 October 1973. The World War II refrain *Don't Be Fuelish* was revived as lines at gas stations snaked into the streets.

In the immediate wake of the crisis, the opportunity to foster energy security was eagerly sought by politicians and the voting public alike. The underlying political and economic conditions which spurred the upheaval were not transitory – crisis could soon knock again.

With the urgency of high fuel prices and uncertain supply, public calls were made for energy independence through improved energy efficiency, renewable energy, and increased fossil fuel exploration within domestic borders or Western-friendly nations. At the international level, it inspired the establishment of the International Energy Agency in 1974 which sought to prevent future oil crises by coordinating oil stocks of Member countries. At the national level, energy standards were spurred, such as the Corporate Average Fuel Economy (CAFE) standards in the United States.

### Short-term change or long-term transformation?

The changes prompted by the 1973 oil crisis seemed to vindicate the Club of Rome *Limits to Growth* report published the year before and have left many legacies which continue to impact energy policy and markets today. It is partly responsible for the creation of the German term *Energie-wende* and started a debate of a global energy transition which is progressing today at varying speeds among countries and regions.

Perhaps the oil crisis would have had a more pervasive effect had it lasted longer. The oil price shock lasted for less than a year and as it faded away, so did the urgency of the search for alternative energy sources, energy efficiency and conservation in some countries. As a result, there has been multi-speed progress in these areas that were declared primary pursuits in the aftermath of the crisis. Some policies have vigorously pursued renewable energy development and energy efficiency. Others have focussed more on fossil fuel development or prioritising petroleum exporting countries in their foreign policy.

In developing economies, the oil crisis had a drastic impact on economic development. The immediate impacts of this were lessened by borrowing through petrodollar recycling, whereby the current account surpluses of exporting nations funded the oil imports of developing nations. Today, energy access, energy efficiency, and renewable energy are pillars of the Sustainable Energy for All initiative. Developing and emerging economies are increasingly adopting energy efficiency standards, targets, and national action plans.

### Crisis and progress

Technological advancement sparked by the 1973 oil crisis has gradually improved the cost-benefit

calculus in favour of energy efficiency and renewable energy. Yet much progress is still to be made regarding technical and non-technical barriers on the path to implementation.

In comparison to renewable energy, energy efficiency is frequently referred to as a “low-hanging fruit” – a misnomer. Most farmers know that low hanging fruit, though easily reached, is less ripe for the picking. Energy efficiency on the contrary is ripe for picking, especially following the technological progress made as a result of research and development programmes spurred by the energy crisis.

Yet, unlike low-hanging fruits, energy efficiency is not always easily reached. Market failures and psychological barriers obstruct implementation. Policies which subsidise fossil fuel production and consumption persist worldwide, disposing of price signals which incentivise energy efficiency.

Still today, energy efficiency is frequently linked to energy security as it was in response to the 1973 oil crisis. Ever increasing energy demand makes energy efficiency an all-season tool for energy

security. At the same time, it presents a wealth of economic opportunity. Yet without the urgency presented by the price shock, it frequently goes unimplemented.

The change that began in 1973 in the heat of crisis has since followed the trend of energy prices; the urgency to implement energy efficiency and find alternative fuel sources rises and falls largely in sync. This unstable movement creates a market full of uncertainty for low carbon development and compounds the risk for potential investors and consumers.

The oil crisis has had a lasting effect on energy industry innovation and formed the basis for the energy transition, the progress of which has been uneven. While the energy security challenges of the crisis lie dormant in relatively stable times, the urgency of implementing a resilient energy transition persists, even if the absence of a crisis makes it less tangible. Today as 40 years ago, energy efficiency and conservation are a necessary part of becoming resilient and preparing for the next crisis – whenever that comes.



Aurelia Figueroa

*Deutsches Institut für Entwicklungspolitik (DIE)*