



Europe Forum Lucerne: Energy – A Conflict Area, Trends and Horizons

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On April 27/28, 2009 the [Europe Forum Lucerne](#) organized a workshop entitled [Energy - A Conflict Area: Trends and Horizons](#).

In the tradition of a townhouse meeting, the Swiss public was invited to Lucerne to listen to an impressive number of high-caliber politicians, scientists, and journalists discussing issues of energy security that Switzerland and the world will be facing in the coming years.

The author of this report attended the conference and wishes to report to the readers of The Oil Drum what he heard at the meeting ... and also what he didn't hear.



It is certainly a laudable goal to get the public involved in discussions concerning energy security issues as these undoubtedly affect all of us directly. We need to be informed in order to be able to contribute to the solution of the problems facing us and in order to reach the best decisions for ourselves.

Yet this conference once again missed an opportunity to inform in an unbiased way. The discussions were dominated by political interest groups, and the people attending the meeting were sent home with assurances that there is nothing to be worried about. We were told that we still have oil and gas for decades to come.

The conference had two separate parts: a public discussion held on Monday evening, followed by a symposium that took place all day Tuesday.

The public discussion featured presentations by three high-ranking politicians. First, we heard from [Moritz Leuenberger](#), the Swiss minister (Federal councilor) responsible for energy and the environment. For 40 minutes, he presented his views on *energy policy challenges for Swiss politics and the economy*.

He told us that he often needs to make difficult decisions, because energy security considerations naturally lead to conflicts of interest. The Swiss public demands clean energy. The people are willing to pay more for energy that protects the climate. Yet, industry demands cheap energy in order to keep Switzerland competitive in the international markets. Electricity produced from hydro power plants is clean, but additional reservoir lakes may impact the local ecology. Electricity produced from nuclear power plants generates less greenhouse gases than electricity produced from fossil fuels, but in return poses a potential security risk and leaves nuclear waste behind that we don't know yet how to dispose of safely. Hence climate and environment protection are often in conflict with each other.

Most nations have separate ministries of energy and the environment. Here in Switzerland, both tasks are within the responsibility of the same minister, which means that he gets bombarded from all sides with demands and requests that are impossible to reconcile. Yet, it is very clear for him that all sides must be heard and all concerns must be taken into consideration, because if we base our decisions on economic considerations alone, our energy situation will end up in the same mess that the financial markets are currently in.

He told us that the Swiss electric grid is fully integrated into the European grid. We trade electricity back and forth, and consequently, energy security decisions must be reached in concert with our neighbors. Switzerland needs to coordinate its energy policies with those of the other European countries. Separate and incompatible energy regulations would be hardly practical.

He told us furthermore that he is aware of the dwindling fossil fuel resources. This will lead to an energy gap here in Switzerland in the coming years. He also mentioned that fossil fuels are not the only resources that are in short supply. In particular, he mentioned drinking water as another precious resource that is challenged in many regions of our globe by our growing world population. Dwindling resources can lead to resource wars, and Switzerland must be prepared to offer its good services to the world to help mitigate and resolve such conflicts.

He recognized that Switzerland has lost ground in recent years in comparison with our neighbors in the development of alternate sources of energy, such as solar and wind energy. New government incentives are needed to close this gap.

Leuenberger came across as sincere, informed, and engaged. He certainly didn't play any games with the audience. He told us what he thinks needs to be done, and he did so in clear and unambiguous terms. I liked his presentation a lot. It left me with the conviction that our energy ministry is in good hands.

The second speaker was [Michael Reiterer](#), EU Ambassador to Switzerland and the Principality of Liechtenstein. Reiterer is of Austrian origin. The topic of his talk concerned the *security of European energy supply torn between domestic, foreign, and climate protection policies*.

Reiterer is more of an economist than an energy specialist. Consequently, his remarks were a bit less pointed than Leuenberger's comments. Reiterer reminded the audience of the recent problems with gas supplies from Russia through the Ukraine. He told us that enhanced energy security for Europe cannot be achieved except by strong cooperation among the European nations. Enhanced energy security requires additional investments into diversification of energy suppliers and supply routes that all European nations need to finance together.

He pointed out the intimate relationship between energy consumption on the one hand and greenhouse gas emissions on the other. He is a strong advocate of the international trade of CO₂ emission certificates. It is more cost-effective, according to Reiterer, to invest in measures for a reduction of greenhouse gas emissions in developing nations than here in Europe.

He expressed his conviction that the U.N. Climate Conference to be held in Copenhagen in December 2009 may offer a very last chance to control and limit the effects of global warming.

The third and final speaker was [Wolfgang Clement](#), a former German minister of economy and labor. He offered some *reflections on German energy policy*.

Clement reminded us of the strong links between greenhouse gas emissions on the one hand and the state of the general economy on the other. He told us that, if the current economic downturn here in Europe continues, we won't have any difficulty meeting our commitments to reducing our CO₂ emissions. De-industrialization will solve our climate problem. Yet, this is not a solution to strive for. Several large developing nations are only now undergoing their own industrial

He told us that, whatever Europe does in terms of reducing greenhouse gas emissions is effectively irrelevant as long as we don't get China and India on board as well, because any European reduction efforts will be more than compensated for by increased emissions from the rapidly developing industries of these countries.

Clement is a strong advocate of deregulation. He does not believe in regulating greenhouse gas emissions at all. His recipe would be to get all nations to invest in research in the development of cleaner technologies. He believes that such measures have a much more realistic chance of curbing greenhouse gas emissions in the future than any regulatory efforts that we may devise.

In good Swiss tradition, we heard from three different high-ranked politicians from three different European countries, one from the political left, one from the center, and one from the political right. Each of them reiterated his political dogma, emphasizing those aspects of the problem that support his views while leaving out everything else.

Neither of them cared to tell the audience what the true nature of the problem is that we are facing; neither of them bothered to tell us what the potential consequences of not solving this problem are; and neither of them offered a comprehensive view of how this problem might be tackled. Hence the attendees were offered bits and pieces of information, but no help was forthcoming as to what they should do with that information.

In order to bridge the gap between the different points of view, the evening ended with a panel discussion moderated by [Erich Gysling](#), one of our most seasoned Swiss journalists. Gysling invited Reiterer and Clement to join him on the podium, but also [Fatih Birol](#) of the International Energy Agency (IEA), [Rolf Schweiger](#), a Swiss politician, and Raphael Vermeir, an exponent of the oil industry.

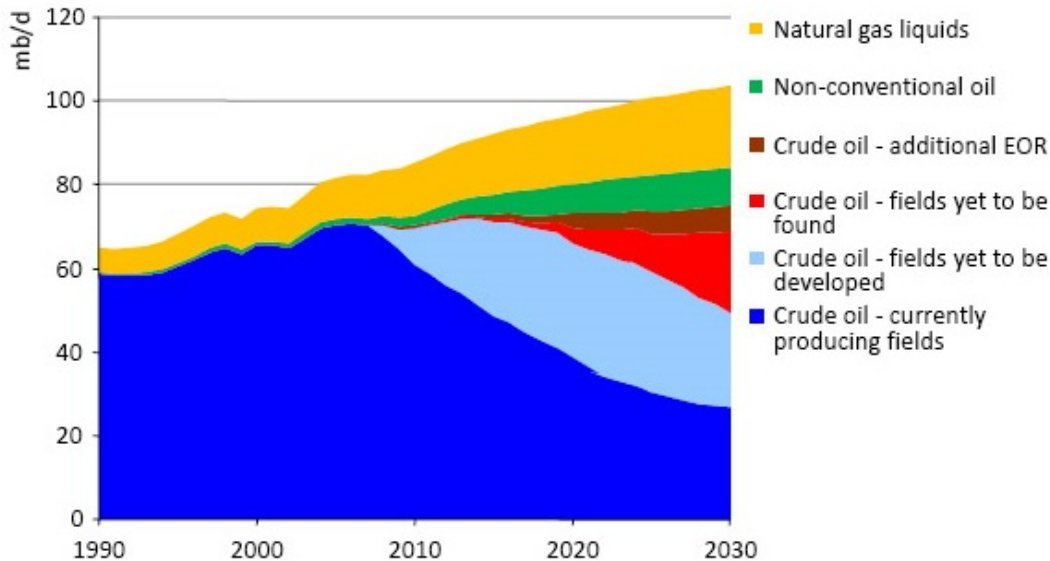
Gysling was provocative, as he should be. He dared to utter the P-word. He mentioned peak oil. None of his guests wanted to talk to him about peak oil. They all were evasive and simply reiterated their own introductory statements. Finally, Gysling asked Vermeir directly, how long he thought that gas would still last. Vermeir was visibly uncomfortable answering that question, but when cornered, he said what he was supposed to say: that we still have gas for many decades to come. Yet he didn't look at the audience while saying it. He looked down at the floor. He is clearly not an experienced liar which makes him a likable chap.

Gysling then talked about the dependence of our private transportation system on imported fossil fuels. He asked Schweiger why he wasn't in favor of supporting the production of electric cars here in Switzerland. A prototype of such a car had been developed recently at ETH Zurich. Schweiger didn't want to answer that question either. He only laughed.

Then Gysling's allotted time was up, and this brought the evening to a close. I hoped that the second day would bring a more specific and direct discussion of the true nature of the beast. I hoped that someone would give it a name and that we might talk about the consequences of not addressing the daunting problems that lie ahead of us in a timely manner. I was to be disappointed.

The morning of the second day was placed under the heading of *global energy shortage*.

First we heard from Fatih Birol, who told us about the *energy gap: global scenarios*. Birol showed us a graph from the [2008 World Energy Outlook](#):



The dark blue curve is what we are used to seeing here at The Oil Drum. It is the typical Hubbert scenario of declining oil *production* after the peak. The top of the yellow curve is what we need. This is the amount of oil that the growing world population under the assumption of growing living standards in the developing countries *demands*. As there is a gap between these two curves, that gap must somehow be filled ... and fill it IEA does, somehow.

IEA assumes that all of the known but not yet developed oil reserves will be developed simultaneously in the coming years. This generates the clear blue curve on top of the dark blue curve. This assumption may not be totally realistic as there is a reason why this oil hasn't been produced in the past. It is too expensive to produce. It cannot be produced economically at current crude prices. Yet when we no longer have enough oil to satisfy current demand, the crude price will rise, and then, these deposits may indeed become producible.

Unfortunately, oil will still be starting to decline after just a few more years, maybe around 2013 or 2014. This cannot be allowed. Hence, we'll need to find new oil fields. This is the red area placed on top of the clear blue area. Suddenly, we'll have to find many more new oil deposits. Birol said so himself: *within 20 years, we'll have to find four new Saudi-Arabias*. This is simply not realistic. It ain't gonna happen. Yet as this is the only way how demand can be met, Birol assumes that it *will* happen nevertheless, somehow.

While it is clear to the readers of The Oil Drum *how* unrealistic this assumption is, this is not clear at all to the average Swiss attendee of the symposium. They look at Birol's graph and see that oil will continue to be coming their way for at least the next few decades. So they are happy. What is there to be worried about?

We then heard from Qiang Liu from the Energy Research Institute in Beijing. He spoke about the *Chinese state energy policy and low carbon scenarios*. His was a hopeful talk as it demonstrated that the Chinese are just as much concerned about CO₂ emissions as the Europeans are, and the instruments that are being investigated in China for curbing greenhouse gas emissions are essentially also the same. China hasn't signed the Kyoto protocol, but they are very much interested in tackling this problem.

After the coffee break, I experienced one of the most severe disappointments of the conference. [Christof Rühl](#), Vice President and Chief Economist of BP, formerly with the World Bank, offered his views on *energy resources: the point of view of the energy industry*. He talked about peak oil, and why peak oil is merely an invention by a bunch of crazies. According to Rühl, we have not

reached the peak at all. There never was any difficulty of oil supply meeting demand. The price of crude increased last spring, because of inertia in the system. As the demand for oil rose, the oil companies were too slow to recognize the growing demand and didn't increase their production in time. Hence the spare production shrank from 4% to 2%, and consequently, crude became much more expensive.

When the Saudis recognized that the oil became too expensive, they declared that they would raise their output, but the market doesn't react to declarations, only to available reserves. Once again, inertia came in the way. It takes 5-6 months for increased production to propagate through the system into the reserves. At that time, the financial markets had crashed, and therefore, the demand had shrunk. With the suddenly much larger stock due to the increase in Saudi output, the price of crude broke through.

The price decreased first to \$35/barrel, but then climbed back again to \$50/barrel. The reason is to be found in the contango. As the future price of crude (12 months into the future) has consistently been above the spot price in recent months, the oil companies prefer to hold back on selling their stock and instead are renting oil tankers to go in circles in the Atlantic, waiting for the spot price to rise and meet the contango price.

Rühl is clearly very experienced in telling his story. He could do so without ever getting red ears. According to Rühl, we have both oil and gas for many more decades to come, and peak oil is not going to happen for many years. The oil market can yet meet rising demand for a very long time.

Even Rühl admits that the price of crude is likely to rise, but his explanation has nothing to do with peak oil. He claims that, as many of the traditional oil producers reach the end of their production, the remaining oil is in the hands of an ever decreasing number of countries. Several of these countries are unwilling to let the international oil companies handle their oil. Instead, the oil will be handled more and more by a few national oil companies, and this will drive the crude prices up.

Oh well.

After Rühl finished, a "rebuttal" was offered by [Werner Zittel](#), an energy expert, who provided a "critical evaluation" of *energy resources: the point of view of the energy industry*. Zittel gave the usual peak oil spiel, explaining how the new discovery of oil fields has decreased exponentially for several decades already, how this allows us to estimate the total amount of oil that can be produced, etc.

This is all stuff that is very familiar to The Oil Drum readers, but how is the average Swiss attendee supposed to know right from wrong? To him, these are simply two opposing views, and of the two speakers, Rühl came across as much more confident of himself, and also his graphs were more slick and beautiful and professionally made in their green and yellow colors of British Petroleum.

After Zittel, we were introduced to [Anja Hochberg](#), head of global economics of Crédit Suisse, who told us about investment opportunities in the context of volatile oil prices. She told us that times of economic instability offer the best opportunities for making money fast.

Oh well, once again.

The morning ended with another panel discussion, this time moderated by Jürg Meier, another Swiss journalist, much "nicer" than Erich Gysling. He wouldn't dare ask any uncomfortable questions.

He invited the three previous speakers to the podium. Each of them quickly reiterated his (her) point of view, and then it was almost time to go for lunch.

As the audience was given an opportunity to ask one question, I wanted to ask the panelists why EROEI (energy returned on energy invested) had not been mentioned by any of them. I explained to the attendees that, as oil becomes more expensive to produce, its production also consumes more *energy*, not only more *money*. Thus, at the latest when one barrel of oil needs to be burned in order to produce another barrel of oil, the game is over irrespective of the price of oil at that time and/or the amount of oil still in the ground. I wanted to know why this concept hadn't been mentioned by any of the experts, why they didn't consider this important.

Rühl answered that, as oil becomes more expensive, more oil can be economically produced, i.e., he evaded my question, although I am convinced that, as an economist with BP, the concept of the EROEI must be familiar to him.

After lunch, several speakers made shorter presentations, reiterating some of the aspects discussed earlier. Klaus-Ewald Holst talked about the need for diversification and new investments in the European gas distribution network and Pierre-Alain Graf told us how the Swiss electricity grid is connected into the European electricity grid with electricity imports coming from France, Germany, and Austria, and electricity exports flowing mostly to Italy, to mention just two of the talks.

Panel discussions ended each of two sets of presentations, but both of them were shortened as most of the talks had run over their allotted time, and they didn't offer much in terms of new perspectives.

The second day ended with another highlight of the conference. [Andreas Fischlin](#) of ETH Zurich, one of the lead authors of the IPCC reports on climate change, told us about the work of the IPCC; what data they had been working with, and how they had come to the conclusions that they had reached. His talk entitled *sustainability – why even a radical change in technology is still not enough* offered a rather alarming analysis of the effects of energy utilization on climate change.

When I walked out of the conference, I was rather satisfied at first with what I had heard. The conference had been very professionally organized. The speakers were all of a very high caliber. Yet, the longer I thought about the conference, the more upset I became ... not about what I had heard, but rather about what had *not* been said.

What if we don't find four new Saudi-Arabias in time? Well, in that case, we'll have to learn to live on less energy. How do we do this? Where do we start? How do we save energy? How much energy can we save? Where can we save energy?

What are the implications of reduced energy availability on our ability to feed ourselves? Can famine be avoided? How can we minimize the negative effects of energy starvation on our agriculture?

How much time do we have left before energy starvation sets in?

None of these question was answered or even raised. The people who attended the conference were reassured that everything is just hunky-dory. If they attended the conference because they had been worried before, their fears were abated. Our government will take care of them. The four Saudi-Arabias will surely be found in time.



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