



Energy Debate in Switzerland

Posted by [Francois Cellier](#) on January 16, 2008 - 10:45am in [The Oil Drum: Europe](#)

Topic: [Environment/Sustainability](#)

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Today, I attended a public debate organized by the four Swiss Academies of Sciences. A position paper entitled: ***Rethinking Energy - Efficient Use and Conversion of Energy: Contribution to Sustainable Development in Switzerland*** that had been prepared by the four academies over the past year was to be debated by experts and the broad public. Unfortunately, the position paper itself is only available in [German](#) and in [French](#), but both versions contain a three-page summary in English. A broad range of experts were invited to the debate, including scientists, economists, CEOs of energy companies, as well as some politicians.

Emphasis of the position paper (and today's debate) was on greenhouse gas emissions associated with the consumption of fossil fuels. The per capita energy consumption of Switzerland currently is 6.1 kW, not including grey energy, i.e., energy that is being consumed abroad in the production of goods destined for export to Switzerland. At the current energy mix, this corresponds to roughly 6 tons of CO₂ per person being emitted into the air. Including the grey energy, the per capita CO₂ emissions would be around 10.7 tons.

In order to keep the effects on climate change (global warming) below 2°C, Switzerland should reduce its CO₂ emissions from 6 tons to 1 ton per person by the end of the century. This would require an annual decrease of emissions in the order of 2.5%. The debate concerned itself with how this reduction by a factor of 6 can be accomplished without destroying our economy in the process.

All speakers agreed that Peak Oil is a reality. However, the scientists were careful in their statements. The position paper claims that:

“The majority [of researchers] expect that Peak Oil will take place sometime between 2015 and 2035. After that point in time, supply of conventional oil will decrease [BP].”

That is, the Swiss scientists responsible for the position paper rely on the correctness of information generated by oil producing companies.

Interestingly enough, the most outspoken and progressive speakers were the two politicians on the panel. One among them, [Rudolf Rechsteiner](#), social-democratic party (SP) Basel, is both an economist and journalist by education. He is President of the Energy Consortium of the city of Liestal; he is a member of the House of Representatives (Nationalrat) of Switzerland; and as a Representative, he is a member of the chamber's Committee on Environment, Zoning, and Energy and of the Committee of Social Security and Health. He stated in no uncertain terms that Peak Oil is taking place here and now, and that there is not only Peak Oil to be concerned about,

but also Peak Uranium, and Peak Everything (he must have read [Heinberg](#)). He is strictly against constructing new nuclear power plants, because it would take 18 years for such a plant to come on-line, if and when it can be built at all (in Switzerland, such an endeavor would have to be approved by the people at the booth, which is unlikely to happen in the current political climate). In his view, we don't have 18 years to spare. We need a solution much faster, because an energy gap is already projected for 2012. For this reason, he advocates massive investments in wind and solar power now, as wind farms can become operational much faster. Such a power plant could be operational after 18 months, rather than 18 years.

The other politician on the panel was [Michael Kaufmann](#), also SP. Kaufmann is an agricultural engineer and also a journalist by education. He was Speaker of the Press of the Swiss Government from 1992 to 1998. In that position, he was responsible for the topics energy, traffic, environment, zoning, and agriculture. Since 2004, he is Director of "Energy Switzerland" and Vice-president of the Swiss Department of Energy. He was a bit less outspoken than Rechsteiner, but he also stated clearly that energy decisions are needed urgently, that there is no time to be lost. The energy debate may be the most urgent and imminent concern of Swiss politics. He explained what the Swiss government is currently doing to address this issue. His committee also prepared a position paper on energy recently that hasn't been published yet. This position paper will be sent shortly to the Federal Council (Bundesrat) for discussion, and hopefully, the Federal Councilors will adopt some of its recommendations and send them to the two chambers (the Swiss legislative branch has a similar structure to that of the U.S.) for debate and approval.

All of the panelists agreed on the need of a drastic reduction in the consumption of fossil fuels, and that the most promising (and most easily realizable) measures are based on increasing the efficiency of energy use at all levels. Cars should be made more fuel-efficient (to this end, they need to be made lighter, not necessarily smaller); dwellings should be better insulated (min-energy housing); and the ratings of appliances should be adjusted on an annual basis to new improvements of the available technology. Thus, replacing one type of energy by another is less promising than reducing the need for energy consumption by technological improvements.

The scientists didn't have much good to say about the instrument of buying CO₂ emission credits. These credits may look good on paper, but they don't solve the problem of the technological gap between the first and the third world at all. They only accomplish to pay off developing nations for not developing industries of their own. This is counter-productive. We need to be able to solve the CO₂ emission problem in the first world and become so clean that we can allow the third world to, at least initially, develop industries that produce goods in a somewhat less energy-efficient manner. The longer-term goal would then be to help these nations, using our own technological advances, to become cleaner also.

The most positive aspect of this afternoon was the realization that, at least here in Switzerland, politicians and scientists are willing and able to sit down together and jointly address this difficult problem in an atmosphere of mutual respect and cooperation.

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