



ACADEMIA ENGELBERG

Fünfter Wissenschafts Dialog – 9. bis 11. Oktober 2006  
in Engelberg, Schweiz

# **Workshop Nuclear Energy Protocol**

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## Problem

One of the principal issues with regard to the future of energy supply is to decide whether one considers more urgent to reduce CO<sub>2</sub> output or to abolish the risks related to the exploitation of nuclear energy. Those in Germany or Switzerland who advocate a complete nuclear power phase-out, have to offer a realistic exit-scenario. In other words, they need to propose an alternative technology which is to replace the nuclear powers share in the base load without increasing CO<sub>2</sub> output. Another aspect of the problem is temporal: given a projected energy shortage in the near future and also the time span necessary to construct alternative power plants (e.g. GaS), a decision, in whatever direction, needs to be taken immediately.

## Positions

*Basic antagonism:* On one hand the argument was put forward that once a decision has been taken in favor of one technology, all available resources should be concentrated on research on it. On the other hand, it has been claimed that in order to assure an appropriate solution for any energy bottle-neck that might come up in the near future, one has to continue research in all potential technologies. E.on's energy strategy for instance is based on five pillars: coal, gas (GaS), nuclear, wind and biomass.

*Subsidies:* The public funding of alternative technologies (e.g. "Einspeisevergütung" for solar and aeolian energy in Germany) poses several problems: first, it has to be ensured that only sufficiently developed technologies receive subsidies, because otherwise, considering the lifespan of infrastructure, there might occur a blockade for further development. Second, subsidies need to be targeted toward economical efficiency.

*Spatial dimension:* One could imagine Switzerland to compensate nuclear power with imported wind energy, e.g. from northern Germany. This would however lead to an uncomfortable dependency besides being neither cost nor energy effective (cf. transportation losses, expensive additional infrastructure). Nevertheless the whole problem has to be considered on a European or even global scale. Indeed a phase-out policy would either provoke an increase in energy prices – thus making alternative energy resources more competitive but also inciting national industries to dislocate their production abroad – or, because of the highly liberalized European market, encourage companies from other countries to oust local energy suppliers.



*Ultimate nuclear waste disposal:* Both sides agreed on the need to secure long-term storage facilities and to encourage further research on transmutation. But whereas the opponents of nuclear power tend to exploit the disposal-issue by blocking any research on it to push a complete phase-out, its defenders arrive at a radically opposed conclusion: since in any case storage facilities have to be built, why not continue with nuclear power all the same? Moreover the continued use of nuclear technology would encourage future generations to take care of the ultimate disposal sites.

## **Outlook**

In order to meet the challenges posed by current trends in energy matters, the participants agreed, that both sides have to make an effort to unblock the political stalemate and to come to a decision on how to fill the expected energy shortage and how to dispose of the radiating material. Because only when conditions are clarified energy companies are able to invest and thus contribute to innovation and progress.