



“Health impacts near nuclear power plants confirm the accuracy of Germany’s decision to phase out nuclear energy”

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Phase out of nuclear power

In 2000 an agreement between the utilities, the biggest four in Germany (E.ON, RWE, EnBW, Vattenfall), that operate nuclear power plants, and the federal government was signed.

There was an understanding that nuclear power plants should be shut down step by step, the latest ones in the 2020ies.

Slide: Sites of nuclear power plants in Germany

Until today two facilities are shut down.

For every plant there was granted a residual operating time of nearly 32 years, or rather an amount of electricity still to produce.

Slide: Residual operation time of nuclear power plants in Germany

*Slide: Operating nuclear power plants
Balanced residual amounts of electricity*

The Federal Agency of Radiation Protection is balancing the residual amount of electricity of each facility. Today nearly 50 % of the granted residual amount is already produced. If one plant will be shut down earlier, the left residual amount of electricity could be shifted to another plant – but only from old to new.

This is a very flexible solution and the granted period of nearly 20 years for the phase out makes it feasible to plan and start a new energy supply.

Slide: Primary energy in the long term scenario for Germany

So Germany has two ambitious targets: the phase out of nuclear power and the reduction of greenhouse gases. It is committed to reduce the GHG by 40 % until 2020 compared to 1990. This is a strong signal, that Germany sends to other nations. The climate policy package is adopted by the government and tomorrow the environment minister will present the package at the Bali Conference. The package includes a bigger share of renewable energies, largely through promoting offshore wind energy, other measures as cogeneration of heat and power, a renewable energy heating law, improved energy efficiency in electric goods and in the building sector, globally equal per capita emissions of 2 tonnes ...

There are good reasons to phase out nuclear power. Nuclear energy is not a clean energy. You must consider the whole path of nuclear process from uranium mining to the disposal of high level radioactive waste. Not only greenhouse gases but radioactivity and other toxic substances were emitted. Especially high level nuclear waste is radioactive for thousands of years. There are still no completely safe solutions for nuclear waste storage.



Nuclear power is not a solution for climate change. It provides barely 3 percent of the world's total energy consumption. If nuclear power would be expected to cover a much higher portion of global energy needs, thousands of new plants would have to be built in a short time.

Uranium is also limited. Fossil fuels are not the only finite energy source. The estimated reserves of uranium will last for about 70 years. If we drastically increase the development of electricity from nuclear power, the uranium reserves will run out that much sooner.

By continuing to spread nuclear technologies, the access to nuclear weapons capable material becomes easier and the danger of illegal nuclear proliferation drastically increases.

And last but not least nuclear power causes health problems. Radioactivity even in low doses is a risk for many illnesses like cancer and leukaemia.

KiKK Study

Actually, last weekend, there was presented a new case control study about childhood cancer in the vicinity of nuclear power plants in Germany. It is the third research study in this issue. The first two studies could not definitely find out, in which range the youngest children from zero to four years get ill near nuclear power plants. The now presented study, the so called KiKK-Study, is the most extensive investigation, and was accompanied by an independent expert group. As I am a member of the so called expert group, I am very glad to have the occasion to present the results to an international auditorium.

Slide: Design of the case control study

The study considers childhood cancer registered at the German childhood cancer registry in Mainz. Cases and controls were matched 1 : 3.

Slide: Dose response curve for all cancers based on a logistic regression model (x = distance of place of residence from nuclear power plant)

Slide: Results of the case control study

The study found a significant negative trend for the distance. Cases live nearer to the nuclear power plants than the selected controls. The inner 5 km radius is identified as the area of highest risk, the effect is largely restricted to leukaemia. Additionally the increased risk for children was proved not only for all sites together but also especially for each site. So it is sure that the effect does not belong to only one site, as formerly claimed. The results of the study are very important, also for the German phase out debates. In Germany there is actually a very intensive discussion, the study is on the headlines of a great number of newspapers.

You must know: The utilities plead for expanding the residual operating times during the last 4 years. The given reason was climate change. But since today they did not take the chance of a long term phase out, as they wanted to have in the phase out negotiations with the government. They only have several coal-based power stations in the pipeline and that acts against the German ambitious CO₂ reduction targets.

The study about childhood cancer confirms that the political decision in Germany to phase out nuclear power was right. The discussion about prolongation of operation time of nuclear power plants should be stopped immediately. The nuclear phase out has to be accelerated.

Each child getting ill by cancer in the vicinity of nuclear power plants is one child too much.