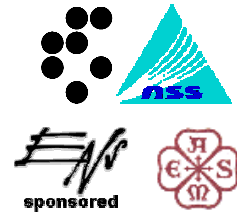




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THE IMPACT OF THE DEREGULATED ELECTRICITY MARKET ON THE FUTURE OF NUCLEAR ENERGY

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EXTENDED ABSTRACT

Deregulation means that the consumer may choose between different electricity suppliers. These have to pay for transmission through the net of other distributors. In Europe first steps to deregulation began in 1991 in Britain and Norway followed by Sweden and Finland in 1996. Following a directive of the European Commission 12 out of 15 countries should have liberalized their markets until 1999. With the exception of France this took place.

The German market was opened completely in 1999 with a high dynamic, resulting in price cuts for the industrial consumers by 30-50% and even for private households by 15-20%. Without an increase of overall electricity consumption and with overcapacity of generating units, utilities try to increase their market shares in a highly competitive market.

The price for the positive changes was a strict cost management in the German electricity industry with a reduction of 30 000 employees from about 230 000 before and a reduction of investments in generating and transmission.

Today electricity is sold in the high voltage grid for 4-5 Pfg/kwh, leaving after reduction for transmission about 2-2,5 Pfg/kwh for production.

New gasfired combined power plants (G+D) produce electricity for about 5 Pfg/kwh. Although always praised as the best performers, they cannot meet the tolerable price limit in Germany for base load. The same is true for new coal plants, as long as a large overcapacity exists. But existing nuclear plants are generating at marginal costs of about 1,5 Pfg/kwh. These written off plants have an excellent position in the market.

Therefore the future of nuclear energy will not be the construction of new plants in the coming years but will be determined by the extension of the lifetime of existing plants, their improvement and safe operation. Because of the actual political opposition in Germany it is difficult to make provisions for a long term future.

The cost and market considerations made for Germany should be valid for most of the other European countries.