

## Atomic overtures

*Bertrand Benoit*

Cold rain beats down outside the Biblis power station, but behind the airlock that isolates the slightly radioactive containment area, the temperature rises to uncomfortable levels. Past several other layers of steel, the nuclear reactor hums gently.

"See these beams," says Frank Staude, an engineer for the RWE power group, sweat streaming down his cheeks. "They will protect us against the kind of earthquake that would leave no skyscraper in Frankfurt standing."

The trusses are the latest in a series of investments worth a total of €1.2bn (\$1.8bn, £950m) that RWE has made since 1999 to keep the 1970s Biblis running safely. Hartmut Lauer, the site manager, says the 2.500MW plant could "easily" run for another three decades, continuing to supply 60 per cent of power needs in Hesse, a German state roughly the size of Belgium.

As things stand, there is scant prospect of this happening. Between next year and 2012, RWE expects to power down and dismantle the plant's two reactors as required under a 2002 government decision to phase out nuclear power in Europe's largest economy. From being Hesse's engine room, the small town of Biblis will revert to its ancient role as the region's cucumber capital and home to the yearly Gherkin-Queen beauty contest.

Or will it? The mood is changing in a country that has long looked on its nuclear plants with extreme suspicion. As power prices rocket, Germans are beginning to wonder whether the phase-out was such a good idea. Last month, an opinion poll showed that for the first time since the government's decision a majority of respondents favoured extending the lives of the country's 17 remaining plants.

Sensing a turning of the tide, RWE, with the backing of Eon and Sweden's Vatten-fall, the other two operators of nuclear reactors in Germany, has made Berlin politicians an extraordinary offer that it hopes will persuade them to scrap the phase-out. "The people and the politicians have been asking us what we would do with the additional profits," says Gerd Jäger, the RWE board member responsible for nuclear power. "What we are now saying is: we are going to give you some of it back."

Because Germany's nuclear plants have long been paid for - the youngest was built more than 20 years ago - and use relatively cheap fuel, they are highly profitable. Letting the plants run beyond 2020 would generate €10bn a year in additional income for the operators.

After years of campaigning, for a return to nuclear without offering anything in return, the three groups have made a U-turn, floating the idea of a fund that would re-channel up to half of the windfall profits. The money could be used to finance research into renewable energy, extra spending on energy efficiency for households and industry, or even lower power prices for consumers.

The offer has captured the imagination of politicians in Chancellor Angela Merkel's Christian Democratic Union, where advocates of nuclear are already in the vast majority. This, they think, could be the key to turning growing popular acceptance of nuclear into wholehearted backing. "The idea is so clever because the only thing the producers are missing right now is overwhelming public support," says a Merkel confidant. "If they can persuade the people that they will get a tangible, by which I mean monetary, benefit from letting the plants run longer, they have won."

Ms Merkel, a physicist by training, says she would like to revise the phase-out deal. But her hands are tied for now by the agreement she signed with the Social Democratic party, junior partner in her "grand coalition", upon taking office in 2005. Since the SPD insisted on holding to the course set by Gerhard Schröder's Red-Green coalition, the two parties agreed to disagree, postponing a decision about whether to scrap the law until after the general election in September next year.

There are dissenters in the SPD - people such as Helmut Schmidt, the former chancellor, or Wolfgang Clement, a retired economics minister, who insist the phase-out was a mistake. But they are not mainstream Social Democrats and the party has so far steadfastly refused to reopen the issue.

For the power generators and their CDU backers, this means next year presents a make-or-break opportunity to build a case for a return to nuclear. If they fail and the next government sticks to the phase-out, 7000MW of nuclear capacity will come offline during the life of the next parliament. Germany's divorce from nuclear power will have become irreversible.

But the nuclear advocates are optimistic. Both industry representatives and officials close to Ms Merkel think the country is undergoing an unstoppable re-conversion and that even the SPD will eventually admit the phase-out was a mistake. "The factors that conditioned the 2002 decision have changed radically in the past few years, whether we are talking about capacity estimates for conventional power, oil prices, power prices or the government's new CO2 emission goals," says Mr Jäger.

CDU politicians are beginning to ramp up their advocacy of nuclear, paving the way for a vigorous campaign ahead of the election. The industry's biggest supporter in the government is Michael Glos, economics minister. Pulling out of nuclear, says Mr Glos, may make it impossible for Germany to fulfil its ambitious 2020 target of cutting CO2 emissions by 40 per cent of their 1990 level while keeping power prices affordable.

"It will be very hard," he told the FT in answers to written questions. Every year, he said, nuclear power plants "save CO2 emissions equivalent to the emissions produced by road transport in the whole of Germany, and they do so at a very low cost... From an energy policy point of view, and given the need to keep power prices in check, a reversal of the phase-out is necessary."

Independent experts think Germany may just be able to achieve its emissions goals without nuclear - but at a cost. This is partly due to higher prices for fossil fuels, but also because of the additional costs imposed on coal- and gas-powered plants by the EU's emission certificate trading scheme. With the phase-out, they say, Germany will have to sacrifice one of its three targets - lowering emissions, keeping power affordable and cutting its dependence on Russian gas - in order to achieve the other two.

"In theory, you can pull out of nuclear and achieve your emissions goals," says Claudia Kemfert, energy expert at the DIW economic institute in Berlin. "But this will require massive efforts in other areas, such as mobility, which will be very costly."

Models developed by the Prognos forecasting institute for the government in 2007 showed that reversing the phase-out would cut wholesale and retail power prices by 25 and 10 per cent respectively by 2020, saving consumers and business up to €5bn a year while reducing CO2 emissions by an extra 60m tonnes a year. Meanwhile, an internal study by the economics ministry warns that even if Germany managed to replace nuclear's 25 per cent contribution to total power generation with renewable and traditional power, the additional costs would dent the competitiveness of industry.

Others dispute whether the government's CO2 targets can be achieved at all. Dietrich Austermann, a former CDU state economics minister and the first to suggest the fund idea now being floated by RWE, says the goal is only realistic on paper. "We do not have a fully workable alternative. Wind power is great but it fluctuates too much to replace the stable supply of nuclear. There are interesting ideas about how to store wind power, but we need time to develop them - time we do not have if we switch off our nuclear plants."

The economics ministry is also concerned about a loss of technological expertise, not least about safety, amid what they see as the beginning of a nuclear energy boom elsewhere in the world. One example is the highly secure pebble-bed reactor that South Africa plans to build in

2010, which has excited industry watchers. Yet the design originated in Germany, where the experimental Thorium High-Temperature Reactor was shut down by political fiat years before South Africa acquired the licence.

Opponents of nuclear power dispute the figures of the power industry. An unpublished analysis by the SPD-led environment ministry suggests that the fall in production capacity caused by the phase-out would be more than made-up for by the deployment of renewable energy on a large scale. "The phase-out provides a powerful incentive for the deployment of renewable energy and the improvement of efficiency that would otherwise not be there," says a ministry spokeswoman.

RWE's Mr Jäger believes such scenarios are over-optimistic. "The construction speed of [conventional] power plants and transmission lines is much slower than expected," he says. "One crucial reason is the increasing resistance in local communities to coal-fired power plants. We just had a plan for a twin 800MW coal plant in Saarland falling through because of political opposition."

The pro-nuclear camp was given a serious boost in March when Dena, the government-controlled energy agency, warned of a looming "power gap" because of massive plant closures in coming years (several conventional plants are also nearing the end of their lifespan). Germany, it said, faced a power shortage from 2012, rising to an 11.700MW gap by 2020 - the capacity of 15 power plants.

Nuclear advocates also point to the radical overhaul of the power grid necessary for large-scale deployment of renewable energy. Unlike nuclear power, which is generated close to areas of high consumption, electricity produced by future wind parks off Germany's thinly populated coastline would have to travel deep into the mainland through millions of German backyards, guaranteeing a flood of lawsuits. "I see the lack of acceptance for new plants, whether nuclear or not, as the single biggest argument in favour of letting nuclear plants run longer," says Prof Kemfert. "If we do not, I fear the Dena scenario is precisely what will happen."

Grassroots opposition to new gas and coal plants, from Hamburg to Westphalia, stands in contrast with the strong support for nuclear energy in those municipalities where plants are located. One of Germany's most active pro-nuclear organisations is Asketa, an umbrella group for 25 local authorities home to nuclear facilities.

"Perhaps it is because we have lived with the plant for the past 30 years but here it is not such a big deal," says Hildegard Cornelius-Gaus, mayor of Biblis and an Asketa activist. "Everyone knows someone who works there. Many people have visited the plant and seen for themselves how much is being invested in its safety. I would not trade it for a coal-powered plant for anything in the world."

As more Germans begin to share Ms Cornelius-Gaus's point of view, advocates and opponents of nuclear power are preparing for the coming public relations battle. The slogan of the 1980s Green movement -Atomkraft, nein danke! (nuclear, no thank you!) - is being recast as Atomkraft, ja bitte! (yes please!) and the unwieldier Atomkraft, nicht schon wieder!" (not again!).

The rival camps' prospects seem evenly balanced. But with the first big wave of shutdowns scheduled for the years beyond 2009 and no political party contemplating the construction of new nuclear plants, both sides can rest assured that whoever wins the argument will have settled the nuclear debate for good.

**Fonte: Financial Times, London, August 26 2008. Primeiro Caderno. p. 9.**