

Forerunners or scaremongers? Germany to abandon nuclear power

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The German government's final decision to abandon nuclear power as of 2022 has been expected for months. However, instead of calming the waters, providing solutions and answering the question 'What next?', it has only fanned the flames. Even the adoption of legal amendments enforcing the government's decision by the German parliament (both the Bundestag and the Bundesrat) in late June and early July has not calmed the situation. It is more than apparent that these decisions have been made under emotional pressure: there was not enough time for accurate calculations to be made and consideration to be given to the consequences of Germany abandoning nuclear power. Chancellor Angela Merkel has so far been unable to fully convince the public that the 'energy shift is a huge opportunity' and that this process will be carried out on condition that 'the supplies remain secure, the climate protected and the whole process economically efficient'¹. German economic associations have warned against a politically motivated, ill-judged and irreversible abandonment of nuclear energy. They are anxious about an increase in electricity prices, the instability of supplies and environmental damage. The government believes, however, that green technologies will become a new driving force for the German economy and its main export commodity. Before that happens the industry will have to increase its use of electricity produced from fossil fuels, mainly natural gas imported from Russia. This may be exploited by Gazprom which will try to strengthen its position on the German market, and thus in the entire EU.

The government: the burden of taking the initiative

On June 30, the Bundestag voted on the abandonment of nuclear power in Germany by 2022. Christian Democrat MPs, the Liberals and members of the SPD and the Greens adopted the amendments to the Atomic Energy Act with the vast majority of votes (513 for, 79 against, 8 abstentions). On July 8, the Bundesrat, the chamber representing the German federal states, endorsed the decision made by the Bundestag. However, Chancellor Angela Merkel was kept in anxiety about the outcome of the vote till the very end. During the straw vote on the amendments to the Atomic Energy Act, conducted by the parliamentary factions, several Christian Democratic and liberal MPs voted against or abstained. The CSU, which has been a bastion of the nuclear lobby, is in a state of upheaval and its members refuse to

¹ http://www.cdu.de/portal2009/26423_32937.htm

understand the party's chairman volte-face: Horst Seehofer has recently become one of the greatest opponents of nuclear power.

The unstable situation in the ruling coalition and the desire to enter into a 'new social contract' made Chancellor Merkel seek a political and social compromise with the opposition. The SPD and the Greens eventually supported the government's project, but the Chancellor had to go out of her way to persuade those who in fact had long since been convinced. Despite the impressive results of surveys² which show that 64% of Germans are against nuclear energy and that 56% demand that nuclear power be abandoned immediately, the government's decision has been questioned by many prominent German politicians and experts³.

The Greens: what now?

The initial enthusiasm and satisfaction that broke out in the opposition camp after the government's decision to abandon nuclear power was soon replaced by reflection and consternation. Even though the SPD has pledged support for the government's proposal, it repeatedly reproached the cabinet with having to vote in its own projects over and over again (which it first did in 2002, when Gerhard Schröder's government decided to abandon nuclear power). The Greens' reaction was different. On the one hand, the party has achieved an irrefutable victory – its key demand to give up nuclear power in Germany was being fulfilled. On the other hand, the decision of the coalition and the fact that An-

² <http://www.finanznachrichten.de/nachrichten-2011-03/19654156-n24-emnid-umfrage-64-prozent-der-deutschen-gegen-at-omkraft-56-prozent-fuer-sofortausstieg-119.htm>

³ <http://www.zeit.de/2011/28/Biedenkopf-Interview>
<http://www.sueddeutsche.de/wirtschaft/bdi-praesident-hans-peter-keitel-im-gespraech-wir-tanzen-nicht-auf-den-stammtischen-1.1115684>

The Greens are concerned that they may lose a substantial part of their political identity. What slogans will they put on their banners during the next election if their main demand and an element of their founding myth have been implemented?

gela Merkel's government has taken the initiative have created several problems. The fact that the Greens' project envisaged the abandonment of nuclear energy 4-5 years earlier was only one of the problems. A heated debate broke out within the party with two factions clashing: the faction of the pragmatists (who supported the ruling coalition's plan – albeit with some amendments – as the best solution possible

in the current situation) and the faction of the fundamentalists (for whom the adoption of Merkel's proposals would be a betrayal of their ideals). The calculations of experts who warn that the abandonment of nuclear power will be costly for the budget are a further problem. If the costs of switching to renewable energy become too heavy a burden for the average German, the public may rapidly withdraw its support for this project. Unfortunately for the Greens, parliamentary elections are to be held as late as 2013.

However, the Green's greatest concern is that they may lose a substantial part of their political identity. What slogans will they put on their banners during the next election if their main demand and an element of their founding myth will have been implemented? In the first weeks of July polls showed that the Greens lost several points and ranked below the SPD with 23%⁴.

⁴ <http://www.wahlrecht.de/umfragen/forsa.htm>

Squaring the circle: the economy says no

In her speech in the Bundestag on June 9, 2011, Chancellor Angela Merkel admitted that everything the government intends to implement in seeking to construct a 'new architecture of energy supplies', resembles the 'squaring of the circle'. Below are just a few of the economic and social consequences of the decision to abandon nuclear energy in Germany.

In March 2011, immediately after the Fukushima disaster, the German government decided to shut down eight nuclear power plants with a combined capacity of over 8 GW. In May the cabinet decided this shutdown would be permanent. By the end of 2022, more nuclear

power plants will be closed with a combined capacity of over 20 GW. In 2010, all these plants produced approximately 132 TWh (23% of the total electricity production in Germany). The share of energy from renewable sources in electricity production (currently 17%) may increase even up to 38% by 2020, as the government plans to build large offshore wind farms (marine farms) and to develop electricity production from solar energy. It is expected that by that time the production of electricity from gas and coal-fired plants will have increased significantly, as will have electricity imports to Germany, including from France (produced from nuclear sources) and from Poland (coal). Eventually a rapid development of transmission networks across Germany will become a necessity (by 2020, approximately 4,450 km of new transmission lines are to be built). Nobody can assess the exact cost of these changes, but it will certainly be tens of billions of Euros.

German economic associations have warned against a politically motivated, ill-judged and irreversible abandonment of nuclear energy. They are anxious about high electricity prices and the instability of supplies, as well as about environmental damage, for which the industry will have to pay, bearing the ultimate cost of CO₂ emission certificates for German companies. The stock quotes of major energy companies E.ON and RWE plummeted immediately upon the announcement of the German government's decisions. RWE, E.ON and EnBW have already taken legal proceedings against some

of these decisions, i.e. the obligation to pay tax on nuclear fuel⁵.

Eight laws have been amended – starting with the Atomic Energy Act, through the law on renewable energy, and to the laws regulating the development of energy networks. The pressure exerted on the legislators was immense, as lobbyists included both the heads of energy companies (who until recently had been regulars at meet-

ings with Chancellor Merkel) and their opponents. A new influential lobby has emerged, which did not exist back in 2002 when German energy policy was undergoing the previous breakthrough, namely the green technology lobby. Among those who wanted to protect their rights and influence the final shape of the laws passed were the producers of renewable energy equipment, grouped in several associations (the most important being Bundesverband Erneuerbare Energie), municipal utilities (Stadtwerke) and finally those German federal states where the facilities producing green technology equipment and industrial centres producing components for energy production from renewable sources are located. Federal states such as North Rhine-Westphalia, with the largest German coal mines, have been lobbying for further coal production to be sanctioned and for the use of coal as a 'transitional technology'.

Will gas save us?

European Commissioner for Energy Günther Oettinger, following the decision by the German government, said that gas would be the main driving force for growth: 'More renewable energy sources means more gas'. Ronan O'Regan, director at the consulting firm PwC, explains: gas will be necessary as a security measure in case 'the wind is not blowing and the sun does not shine'. Gerhard Schröder, the former chancellor and current lobbyist for the Nord Stream pipeline, explains where Europe should seek gas: 'Gas is necessary as a substitute of nuclear energy. And you take gas from where it is found. The choices are North Africa or Iran, but with limited possibilities. Or Russia – without any limits'⁶. German politicians (for example, spokesmen for economic affairs from CDU/CSU and FDP parlia-

⁵ http://www.boerse.ard.de/content.jsp?key=dokument_537224
<http://www.tagesschau.de/wirtschaft/enbw130.html>

⁶ <http://www.handelsblatt.com/politik/deutschland/schroeder-laestert-ueber-schwarzgelb/4269702.html>

mentary groupings) must have reached similar conclusions, as they claim that 'without nuclear power Germany will be even more interested in gas supplies from Russia'.

German Vice Chancellor and Minister for the Economy Philipp Rösler during his visit to Moscow in June this year discussed the prospects of gas supplies with Gazprom CEO Alexei Miller. Miller assured him that supplies to German power plants are the Russian company's priority. Moreover, Gazprom is willing to become a shareholder in those German companies who are currently undergoing financial difficulties – RWE and E.ON. On June 14, Gazprom signed a memorandum with RWE on a strategic partnership in the construction of gas and coal-fired power plants in Europe. Russian investments in the German energy market were a key issue (if not the most important) discussed during the 13th German-Russian intergovernmental consultations in July.

The problems of German firms resulting from the abandonment of nuclear power, but also from unfavourable contracts concluded with Gazprom, can be used by Russian companies to penetrate even deeper into the German energy market.

Gazprom can thus use the problems of German companies (resulting from the abandonment of nuclear power, but also from unfavourable contracts concluded with Gazprom itself⁷) to penetrate even deeper into the German energy market. By now, the Russian monopoly provides as much as 40% of gas to the German market, and through Wingas (a subsidiary of BASF and Gazprom) it controls more than 20%

of the German gas market. If Gazprom acquired E.ON Ruhrgas shares, it would gain access to a further 50% of the market. Kirsten Westphal, an expert from the SWP think tank, points to this risk and warns against a significant increase in gas prices and the lack of diversification, which may jeopardise Germany's energy security⁸.

On the other hand, RWE's cooperation with Gazprom in the construction of new gas-fired power plants would solve another of Germany's problems, namely the unwillingness of its companies to invest in new gas-fired power plants, since they see gas as merely a transitional fuel in energy production in Germany.

Germany abandons nuclear power, German corporations aren't following

Even though Germany has decided to abandon nuclear power and the financial condition of the country is difficult, German corporations have not as yet given up their plans to expand in the nuclear energy sector in other countries. Both E.ON and RWE have plans to build modern reactors abroad (including in the UK and the Netherlands), although it cannot be ruled out that these plans may need to be re-examined. After the abandonment of nuclear energy, the government is not likely to stop subsidising German manufacturers, contractors and sub-contractors who have exported nuclear technologies to Brazil, China, France, Russia and South Korea⁹. These subsidies, apart from securing payments for exporters from German nuclear industry, are to support the development of the largest corporations. Stricter safety criteria for the construction of reactors will be adopted throughout the world and will entail the construction of modern reactors, which will help those German corporations which work on modern technology abroad to increase their profits.

Germany's abandonment of nuclear power has already brought about far-reaching consequences for the entire EU. Following the decision of the German government, the French Energy minister demanded a special meeting of EU ministers be held, and raised concerns that the stability of energy supplies for Germany's neighbours may be at risk. So far, exports of electricity from Germany have been a security measure for its neighbours in the case of increased

⁷ <http://www.osw.waw.pl/en/publikacje/eastweek/2010-03-03/gazprom-makes-its-gas-trade-europe-more-flexible>

⁸ <http://www.swp-berlin.org/de/kurz-gesagt/energiewende-und-gas.html>

⁹ <http://dip21.bundestag.de/dip21/btd/17/055/1705532.pdf>

demand for electrical energy. This applied to Brittany and parts of Provence in France, as well as to Belgium, the Netherlands and even Austria – Europe's sworn enemy of nuclear power. What is also likely is Germany's eagerness to tighten safety criteria for nuclear power plants in the EU, to reform the Euratom Treaty, and to impose binding regulations concerning the safety criteria on other EU member states, for example, by including them in the Lisbon Treaty.

A new flywheel for the German economy

Green technologies have long been at the centre of attention for German politicians. Even the current government, which in the past had prolonged the operation of nuclear power plants, claims that energy based on nuclear power is merely a bridging technology, while the ultimate goal is to switch the economy to green technologies and renewable energy sources. Germany has long been one of the world's leading promoters of renewables, and it perceives these technologies as a chance to escape the consequences of 'Peak oil'¹⁰ but also to maintain its high position

In the years 2004-2010, employment in the renewable energy sector increased by 129% to 367,400 workers – and it was the only energy sector to increase employment between 1998 and 2009.

in the rankings of international trade. The green energy sector could become the flywheel for the entire German economy. According to the assessment of the German Federal Ministry for the Environment, the sale of green technologies in 2020 is set to equal the total sales of automotive and machine industries, which so far have been the most important export sectors of Germany.

In the years 2004-2010, employment in the renewable energy sector increased by 129% to 367,400 workers. Incidentally, it is the only energy sector which increased employment between 1998 and 2009. All other sectors noted a decline in employment: pit-coal industry (-44%), gas (-44%), brown coal (-35%), nuclear energy (-23%), and even the construction sector (-24%). Manufacturers of renewable energy technologies are primarily small and medium entities involved in designing, manufacturing and distributing the equipment and components, energy distribution, and financial and consulting services. By 2030, the share of renewables in German GDP is expected to reach 3%¹¹. Profits from exports of equipment for the production of renewable energy currently amount to approximately €8 billion, and profits from exports of components for the production of this equipment amount to €12 billion. Europe remains the largest market for German manufacturers and distributors from this sector, receiving 45% of total exports of green technologies. The vast majority of these exports go to European Union states.

Germany's volte-face in the energy sector could have been the most important project not only for the current government, but also for several succeeding German cabinets. It could have become one of those 'great ideas' whose time was thought to have passed irrevocably, but which are nevertheless sought after by the elite in many European countries. It could have been all of these, had this been an evolutionary process. However, Germany has opted for the revolutionary way, and therefore the success of this project now depends not only on the determination of the ruling elite, but also on society, which will bear as yet unknown burdens.

¹⁰ <http://www.osw.waw.pl/pl/publikacje/komentarze-osw/2011-02-08/deficyt-surowcow-naturalnych-implikacje-dla-niemieckiej-polityk>

¹¹ http://www.process.vogel.de/management_und_it/branchen_maerkte/markt-barometer/articles/312177/



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