



Phasing out lignite

Numerous challenges along the way

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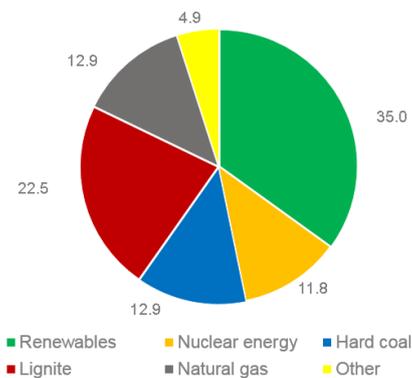
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22.5% of German power generation still lignite-based

Shares in gross power generation, %, 2018



Sources: AG Energiebilanzen, BDEW

As our planet heats up, the public debate has increasingly focused on the use of fossil fuels in the last few years, in particular coal. There is only one major exception, namely the US, whose current administration doubts that human activities are behind the climate change. German hard coal had a share of only 6% in total coal consumption in 2018. 99.9% of the lignite consumed were mined in Germany itself, namely in the Rhineland, in Lusatia and in the Central German district. A number of market observers have been skeptical about or even downright against phasing out lignite mining, mainly due to the negative impact on employment. This is probably the main reason why policymakers have decided to provide up to EUR 40 bn to support/subsidise the exit from lignite production by 2038.

In 2018, 20,851 people worked in lignite-related sectors. This includes 4,979 workers in lignite-fired power plants and 1,255 apprentices. If the promised EUR 40 bn were distributed equally to these workers in lignite and lignite-related sectors, each of them would receive almost EUR 2 m. Of course, apprentices may re-train for another job, and power plant workers are often highly qualified and can find alternative employment.

An immediate exit from lignite production and use would, however, require an increase in domestic power production from other sources and/or higher electricity imports. Germany's very quick exit from nuclear energy exacerbates the problem. In addition, the efforts to expand wind power production have recently come to a standstill. As a result, it is unlikely that the share of power from renewable energies is raised sufficiently quickly to offset the loss of electricity from lignite-fired plants. It is also doubtful whether workers in lignite-related sectors would be able to stay in their current home regions. This applies above all to structurally weaker areas in eastern Germany. In contrast, there seem to be alternative employment opportunities near western German mines. This differentiation is important because the number of workers in the Rhineland (9,986) is almost equivalent to the sum of workers in the Central German district (2,379) and in Lusatia (8,375). Near Helmstedt, for example, only 111 persons still work in the lignite industry, and the lignite mines have already been shut down.

With roughly two-thirds of the workers in lignite-related sectors aged 45 or above, these employees will enjoy a comfortable retirement in 20 years' time, when the exit from lignite mining is to be completed. They do not really need



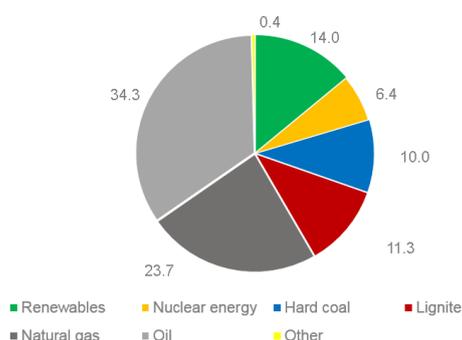
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particular support, but their children or grandchildren do. After all, they will need to look for other employment opportunities beyond mining.

The end to lignite production and use could have been brought about by carbon pricing, too. A different way of putting a (higher) price on carbon would have placed a particular burden on lignite and thus made the fuel less and less attractive over time. This option would have led to structural changes and mine and power plant shutdowns, too. But policymakers decided against it.

11.3% of German energy consumption still lignite-based

Shares in primary energy consumption, %, 2018



Sources: AG Energiebilanzen, BDEW

The exit from lignite production and use will follow policymakers' roadmap, which was basically set out by the coal exit commission. At the beginning of 2019, the commission proposed structural support for the regions that would be affected by the phase-out. The end to lignite production and use will be governed by two laws. The first of them outlines a staggered exit from lignite (it sets out where and when mines and power plants will be shut down), the second provides for concrete structural support for the affected regions. These laws are to be adopted by the end of the year. According to what has been announced so far, the federal government plans to use EUR 26 bn for its own projects, for example in the areas of research and transport. It hopes to establish federal authorities and research institutions in the affected regions. In addition, railways, motorways and federal roads are to be built and improved.

EUR 14 bn will be handed over to the federal states for state projects. However, the states will have to bear their share of the project financing to receive money from this fund. At the moment, the states' contribution is to be 10% of the total expenses.

Beyond these EUR 40 bn, money will be needed to compensate power plant operators for the premature shutdown of their plants. In all probability, the shutdown dates of individual lignite-fired power plants will be fixed in autumn during the compensation negotiations with the operators. The last lignite-fired power plant is to be taken off the grid in 2038 at the latest. If policymakers decided to give in to calls for an earlier exit, i.e. before 2038, the costs would be even higher.

All in all, phasing out lignite mining and use will be quite expensive for Germany. In particular, it is doubtful whether the planned structural support will really help the affected regions to establish resilient, future-proof economic structures apart from coal-related industries. Policymakers have chosen the option which appears easiest to them, probably with a view to prevent an increase in social tensions and the loss of additional voters. There would have been other options. Telling people that it is not possible to guarantee a roughly similar standard of living across Germany would have been more honest and might (if supplemented by subsidies) have led people to change their behaviour accordingly.

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