

Germany – Climate change hero or hypocrite?

By Jonathan Moss

When Angela Merkel was first elected in 2005, few suspected two things: (1) That she would still be in power 13 years later, and (2) that she would globally become known as the ‘Climate Chancellor’. Yet in the past two decades many argue that Germany has become an environmental powerhouse, boosting renewable energy generation, and leading the fight against anthropogenic climate change.

Historic fuel mix

Historically, Germany’s energy mix – like most other countries – was carbon intense. Furthermore, the accompanying ‘low emission’ nuclear power was never the most popular source of energy. The fear surrounding nuclear energy was spurred on by the Chernobyl disaster of 1986, which represented a turning point that gave birth to a big anti-nuclear sentiment across Germany¹. This movement grew to such a level that the Social Democratic Party (SPD) government in 2000 decided to phase out nuclear energy. After initially opposing and delaying the end of nuclear power, Angela Merkel made one of the biggest U-turns in modern German politics after the Fukushima disaster in 2011 and pledged to wean the country off the energy source by 2022. This was seen as revolutionary and hugely popular amongst voters.² This spurred on the energy transition referred to as ‘Energiewende’ and represented a time where the Climate Chancellor could stand tall.

In the years following this historic announcement, levels of renewable energy capacity significantly increased year on year and have led to Germany being placed in the top three for both installed wind³ and solar capacity⁴. Records are regularly broken with some days seeing 90% of electricity coming from renewable sources whilst 2017 overall saw 38% of all power coming from wind, solar, geothermal, and biomass⁵. Despite other countries occasionally gripping the headlines after 100% of their energy was renewable sourced, the levels achieved by Germany, for an economy of its size, are truly significant.

However, despite the rapid increases in instalment of renewable energy, the additional decommissioning of nuclear power plants has put a strain on Germany’s energy system. Has this dual pressure truly made Germany the Climate Change hero the world needs?

Coal – A stain on Germany’s energy system

Germany has always been a large consumer of coal. Especially lignite – commonly referred to as ‘Brown Coal’ – has been a sizeable resource since the beginning of the first industrial revolution. Even

¹ Kunzig, R. “Germany Could Be a Model for How We’ll Get Power in the Future.” National Geographic.

<https://www.nationalgeographic.com/magazine/2015/11/germany-renewable-energy-revolution/>. Accessed April 1, 2018.

² Gross, M. “Energy U-turn in Germany.” *Current Biology* 21 (2011): R379-R381.

³ Wind Europe. *Wind in power 2017: Annual combined onshore and offshore wind energy statistics*. Wind Europe, 2017. Accessed April 7, 2018.

https://www.worldenergy.org/wp-content/uploads/2017/03/WEResources_Solar_2016.pdf

⁴ World Energy Council. *World Energy Resources: Solar 2016*. World Energy Council, 2016. Accessed April 7, 2018.

https://www.worldenergy.org/wp-content/uploads/2017/03/WEResources_Solar_2016.pdf

⁵ Prof. Dr. Burger. *Power generation in Germany: Assessment of 2017*. Freiburg: Fraunhofer Institute for Solar Energy Systems ISE, 2018. Accessed March 12, 2018.

https://www.ise.fraunhofer.de/content/dam/ise/en/documents/publications/studies/Stromerzeugung_2017_e.pdf

today the large coal mines in the former GDR ensure that Germany remains one of the largest producers and consumers of coal and lignite in the world⁶. These high rates of coal consumption hinder Germany in significantly reducing its emissions. Simultaneously, the dual pressure of only supplying 38% of the energy from renewable sources as well as the decommissioning of all nuclear power plants in the coming four years, is slowing the decarbonisation process of the entire energy mix. Therefore, despite significant increases in renewable energy (RE) capacity, there is a well-founded worry that Germany's 'addiction' to coal will not cease in coming decades, potentially offsetting the emissions savings from RE and hindering global efforts to tackle climate change.

Current policy shift

Soon after the re-election of Angela Merkel's CDU in 2017 it became clear that the party had not reached a majority, and it relied on other political parties to form a government. The initially planned 'Jamaica coalition' between the CDU, the Liberals (FDP) and the Green Party failed and eyes turned to the old partner, the SPD.

Despite the SPD being a staunch supporter of many climate change policies in the past, it came as a big surprise when the 'grand coalition' of CDU and SPD announced they would scrap the 2020 climate goals. These goals are the first hurdle in the long-term 'Energiewende' objective of reducing emissions by 80-95% by 2050 (relative to 1990 levels) to support the world's aim of decarbonising the global economy and limiting average surface temperature increase to 'well below 2°C'⁷. The 2020 goals set out to reduce emissions by 40% compared to 1990 levels, yet so far levels have only reduced by 28%, this requires Germany to significantly increase efforts to tackle the gap⁸. Instead, the grand coalition decided to completely scrap the 2020 goals as they no longer see them as achievable.

This announcement sent shock waves around the world. Not only is Germany one of the largest economies and a significant emitter of greenhouse gases, but it has often been hailed as a leader in the struggle against climate change. The 'Climate Chancellor' herself had been especially vocal and had, as recently as 2017, publicly criticised the departure of the USA from the Paris agreement. Furthermore, this policy change brings into question how other countries will react. If Germany is able to rescind its targets, can other major economies do the same – and how would this impact global emissions? Moreover, how will developing countries react as they are required to limit emissions while simultaneously facing other priorities of tackling poverty, investing in infrastructure, and improving the economy? Having seen one of the strongest economies in the world, and one of the few major countries currently running an annual budget surplus, renege on its promises instead of increasing investment, does this not send a conflicting and confusing signal?

⁶ Enerdata. "Coal and lignite domestic consumption." Enerdata. <https://yearbook.enerdata.net/coal-lignite/coal-world-consumption-data.html>. Accessed April 7, 2018.

⁷ The Federal Ministry for Economic Affairs and Energy (BMWi). *The Energy of the Future: Fourth "Energy Transition" Monitoring Report – Summary*. Berlin: BMWi, 2015. Accessed April 7, 2018.

⁸ Graichen, P. et al. "Das Klimaschutzziel von -40 Prozent bis 2020: Wo landen wir ohne weitere Maßnahmen?: Eine realistische Bestandsaufnahme auf Basis aktueller Rahmendaten." Agora, 2017. Accessed April 5, 2018. https://www.agora-energiewende.de/fileadmin/Projekte/2015/Kohlekonsens/Agora_Analyse_Klimaschutzziel_2020_07092016.pdf

In the newly formed government the radical change has even led to some major changes as the energy secretary Rainer Baake – known as ‘Mr. Energiewende’ – has quit in protest of the lack of drive to tackle 2020 goals referring to the policy change as a “bitter disappointment”⁹.

Future

How will other countries react? It may be an opportunity for another climate leader to step forward and guide the way. However, Germany’s policy moves could undermine global efforts and send a signal suggesting that climate goals are flexible and not a priority.

Nevertheless, Germany’s goals for 2030 and beyond still stand and there is hope that the impressive strides the country made will continue so that long-term goals are met. There are a number of untapped opportunities for Germany which could help the country leap forward in its emission reduction goals. Firstly, the offshore wind industry provides large potential in the North Sea and this has only been tapped in very recent years. There are a number of large-scale projects being planned which could help Germany wean off carbon intensive sources of energy. Secondly, the local car industry is a huge potential. Many of the world’s largest car manufacturers are based in the country and could make huge strides in developing low emission vehicles, yet currently this market is led by international brands such as Tesla, Nissan, and Chevrolet¹⁰. However, the financially stable and powerful German car giants could be a huge player in this market, helping the country – as well as all nations across the globe – decarbonise the transport sector. Unfortunately, the lobbying power of these car companies has hindered political action so far and the government has seldom acted strongly against the powerful industry giants¹¹. Lastly, another crucial yet important next step is to set an end date for coal. While the government has repeatedly claimed that they would wean off coal over time and ‘before 2050’, a specific date was never set. This is an incredibly difficult goal for Germany due to the simultaneous pressure of renewable expansion, decommissioning of nuclear energy, and the requirement for a dependable energy grid. Nevertheless, following the UK’s example, a hard date needs to be set to boldly state that the time of carbon intense fuel sources has come to an end.

While Germany was widely hailed as a climate change hero for a number of years, recent political events have put this title into question. It will take significant action in the fossil fuel, transport, and renewable energy industries over the coming decades to regain this title and to prove that Germany has not become a climate change hypocrite.

⁹ Clean Energy Wire. “Energy state secretary quits, criticising new government’s energy and climate plans”. Clean Energy Wire. <https://www.cleanenergywire.org/news/news-digest-5-march-2018/energy-state-secretary-quits-criticising-new-governments-energy-and-climate-plans>. Accessed April 7, 2018.

¹⁰ Ma, J. and Horie, M. “The Leaf Is the World’s Best-Selling Electric Car. Now, Nissan Needs to Catch Up With Tesla”. Bloomberg. <https://www.bloomberg.com/news/articles/2017-08-29/the-leaf-is-the-world-s-best-selling-electric-car-now-nissan-needs-to-catch-up-with-tesla>. Accessed March 10, 2018.

¹¹ The Economist. “German Cars Have The Most To Lose From A Changing Auto Industry”. The Economist. <https://www.economist.com/news/business/21737534-coddled-successive-governments-industry-dogged-dieselgate-lagging-electric>. Accessed March 20, 2018.

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