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Facing a Wall

Climate in the German Elections and Perspectives for France

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Key Takeaways

- All key candidates have climate neutrality by 2045 in sight yet Germany is preparing to embark on a high-speed decarbonization train that has neither enough power nor rails to lead to its final destination. Beyond slogans and principles, effective strategies have often been missing.
- Debates have, however, moved beyond electricity to transport, industry and housing. The Greens have outlined the most articulated plan and have suffered from laying out too many details on core social implications, as their opponents have instrumentalized burdens and alleged cost increases – hardships are taboo.
- On Europe, stronger conflict could emerge with Germany about the role of the Stability Pact, ETS versus regulation, joint borrowing and spending plans, trade policy and taxation if the CDU leads the next government, and over nuclear power in the case of a Green/SPD coalition.
- For France, bringing decarbonization progress center stage, and delivering more, will be crucial to face a Germany that may be more assertive, though possibly lamed by coalition arrangements and that will struggle to deliver on the tough 2030 targets.

Introduction

The German elections will turn the page on 16 years of Merkel chancellorship marked notably by the accelerated, high-cost nuclear phase out (completed in 2022), the slow coal-phase out (2038), a bumpy renewables build up, and insufficient CO_2 reductions. The campaign has been full of surprises: poll ratings for the three leading candidates Annalena Baerbock (Greens), Armin Laschet (CDU) and Olaf Scholz (SPD) have been highly volatile, possible coalition options have multiplied. *Die Linke* (far left) or the FDP (liberals) may become kingmakers. Unforeseen events have accelerated these trends: notably, the terrible floods and the Afghanistan debacle.

The three key candidates have embraced the 2045 climate neutrality target, while energy and climate concerns have been one of the leading, yet not dominant topics in the campaign. Germany is facing a number of other fundamental issues, such as how to accelerate digitization which has been lagging decisively, as the Covid pandemic has revealed (the country being the global "fax use champion"), how to unleash bureaucratic hurdles, securing the competitiveness of industry and domestic production (*Wirtschaftsstandort Deutschland)*, and all this in a context of a declining population. Debates have also focused on tax, raising the pension age and the looming housing crisis.

In foreign policy, the Afghanistan debacle has recalled US unilateralism and European weaknesses and revigorated discussions about whether Germany should align with the US on China, which has become its number one external trade partner, or seek its own way. The Nord Stream 2 pipeline has also been controversial at a time when the Kremlin has been hostile to German and European core interests. On European Union (EU) affairs, differences have emerged on pursuing common debts and fiscal redistribution or ending this exceptional period. Risks of protectionism for the export-oriented economy have been highlighted.

This *Briefing* looks at the status of Germany's energy and climate policies, proposals and debates during the campaign, and draws a few perspectives for the EU and France.

The Climate Wall: 24 Years for a Systemic Transformation Which Has Barely Started

Germany's energy and climate equation is incredibly complex as opportunities of easy progress have been exhausted or missed (with 70 TWh of annual decarbonized nuclear generation lost so far):

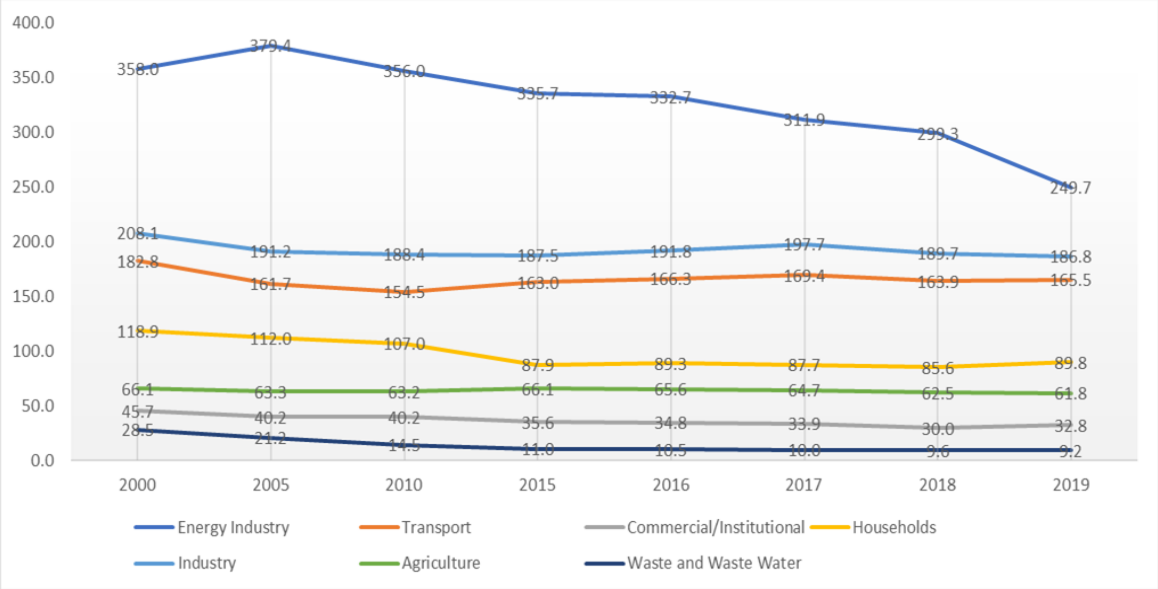
- In April 2021, the German constitutional court ruled that the government's climate policies are insufficient and pose a too strong burden on future generations, thus limiting their future rights and freedom: climate neutrality must now be achieved by 2045 – five years ahead of the EU. The challenge is tremendous: Germany is EU's largest greenhouse gas (GHG) emitter, has above EU average GHG emissions per capita and fossil fuels largely dominate its energy mix (79% in 2019). The transformation of its power sector started 20 years ago, yet has only managed to reduce

fossil generation by about 100 TWh, while low-carbon electricity production increased from 250 TWh to 343 TWh between 2005 and 2020, out of a total 545 TWh in 2019.

The -40% GHG reduction target from 1990 levels was met in 2020 solely due to the pandemic (and not least also thanks to the industrial collapse of the former East German Republic). GHG emissions are expected to post a record growth in 2021 according to estimates from Agora Energiewende.[1] While Germany's power sector emissions have finally started a decline in past years, transport and building emissions are still up and more gas and coal generation in 2021 is expected to tarnish this picture.

GHG emissions are expected to post a record growth

Germany's GHG Emissions by Source, Mt of CO_2 eq, 2000-2019



Source: Umweltbundesamt.

The government has introduced a CO_2 tax on heating and gasoline in 2021: €25/tonne in 2021 (roughly 7 cents per liter), €30 in 2022, €35 in 2023, €45 in 2024, reaching €55/tonne by 2025 (16 cent per liter).[2] Auctions will be starting in 2026. Yet industries can be exempted.[3] Due to global market forces, gas and oil prices have been soaring, fueling looming social problems and a loss in competitiveness for the German industry. Proposals for a highway speed limit of 130 km/h have prompted political and social resistance, highlighting also the ambivalence of some voters and elites wowing to fight climate change but not willing to take simple actions.

Competitiveness and security of supply threats loom. Germany's industries (accounting for more than 20% of GDP, two times more than France) consume a large

1. Agora Energiewende, "Deutschland steht 2021 vor dem höchsten Anstieg der Treibhausgasemissionen seit 1990", August 16, 2021, available at: www.agora-energiewende.de.
2. BMU, "Fragen und Antworten zur Einführung der CO2-Bepreisung zum 1. Januar 2021", available at: www.bmu.de.
3. BMWI, "Wie funktioniert eigentlich die CO2-Bepreisung? ", available at: www.bmwi-energiewende.de.

part of the country's electricity and gas. 44% of large industrial consumers are exempted from renewables surcharges (EEG). Yet the closure of all remaining nuclear power plants is set for end 2022 and after a lengthy deliberation procedure, to phase out coal by 2038 at the latest, with €40 to €100 billion costs for the tax payer, in stark contrast to the UK coal phase out.[4] Large and flexible capacities are being phased out, wind is intermittent, electricity prices are soaring, coal generation is up even with high ETS prices. Concerns over security of supplies in the coming winters are rising, not least as counting on neighbors cannot be taken for granted.[5] There is neither a credible concept for electricity supply security without nuclear fuel, coal and ultimately almost no gas, nor a capacity mechanism to accompany the roll out of renewables. In the short term, the Ministry of Economy still needs to respond to the request by the German Audit Court, which in a report has pointed out threats to electricity supply adequacy in certain peak demand circumstances, and has requested full stress tests for all possible scenarios.[6]

- The *Energiewende* has led to a surge in costs for consumers, who pay one of the highest electricity retail prices in the world to cover around €30 billion costs per year from the expansion of grids and renewable energy sources. With recovery measures and in view of the elections, the government has decided to ease the burden for consumers in covering a larger share of these costs and lowering the *EEG-Umlage*: €10.8 billion have been directly covered by the federal budget in 2021, bringing the EEG down to a €0.065/kWh level and avoiding a further rise to €0.095/kWh. While the burden on electricity consumers has been eased, a CO_2 taxation system has been introduced on heating fuels and gasoline.

- Renewables have been growing over past years, yet the country faces several key hurdles: net capacity additions are largely insufficient especially with growing decommissioning, land allocation is insufficient, social resistance is growing, authorization times are long, costs rise as it takes 5 to 7 years to develop projects, north-south high transmission lines totaling over 10,000 km are plagued by delays at times when Bavaria will see growing import requirements. Deployment must ramp up dramatically to meet the new 2030 targets. The government has lately agreed to increase the targeted wind deployment capacity from 2021 to 2030 to 70 GW, with an additional 20 GW for offshore wind. Capital is largely available, but there are not enough projects and land. For comparison, wind deployment figures reached 1 GW in 2019 and 1.4 GW in 2020: hence a six-fold increase is *a minima* needed per year!

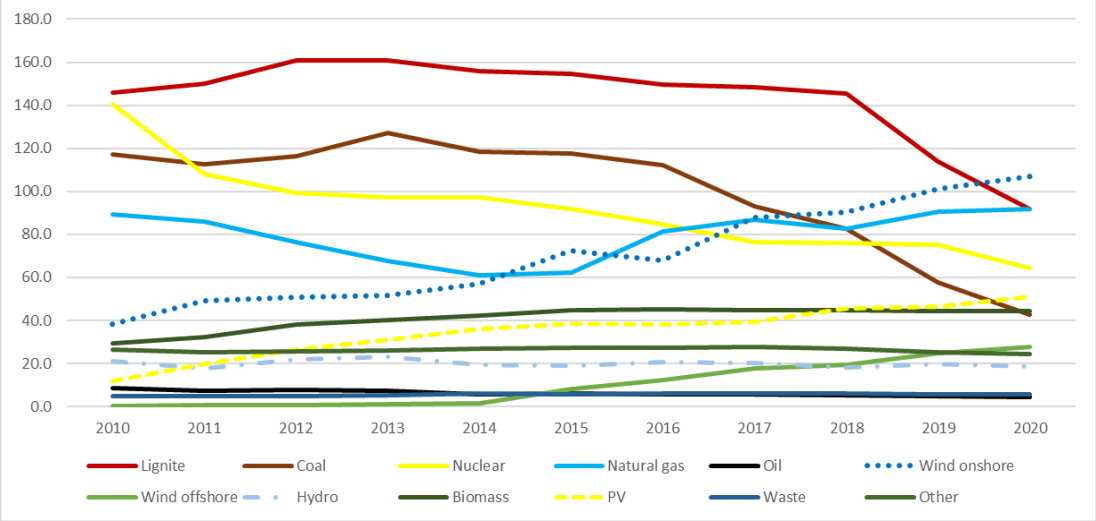
Deployment must ramp up dramatically to meet the new 2030 targets

4. F. Matthes, "Consequences of the Coal Phase-out on the Electricity Production in Germany: A Best Practice Model for Europe?", *Études l'Ifri*, Ifri, April 2021, available at: www.ifri.org.
5. E. Beeker and M. Dégremont, "Quelle sécurité d'approvisionnement électrique en Europe à horizon 2030 ?", *Note d'analyse*, France Stratégie, January 15, 2021, available at: www.strategie.gouv.fr.
6. Bundesrechnungshof, "Bund steuert Energiewende weiterhin unzureichend", March 3, 2021, available at: www.bundesrechnungshof.de.

- Hydrogen has been praised as the magic pill for reaching climate neutrality cost effectively, without nuclear and with little stranded gas assets, and for developing leading technologies *Made in Germany*, notably electrolyzers and exporting them (and reversing the missed solar opportunity). Alongside Japan, Germany has been planning for large hydrogen imports (covering up to 4/5 of future demand of 100 TWh by 2030 and up to 800 TWh by 2050), signing up numerous MoUs, committing financial support for external projects, planning to turn some of its gas infrastructures into hydrogen ones and exempting green hydrogen from the *EEG-Umlage*. The fundamental problem is that the country is already short in developing renewable electricity generation, that electricity will have to be primarily used for electrification needs, that the growth in electricity demand driven by the sole electrification purposes and digitization is obviously critically understated, and that electricity will be all but plenty and cheap – someone will have to pay! Ramping up blue hydrogen first may work, while focusing on imports of e-fuels, ammonia or methanol, but that will require securing cheap gas while keeping fugitive emissions in check, as well as deploying carbon capture and storage (CCS). Lately, the debate has started taking a more realistic turn, as shown in the Agora *Energiewende* report on "No Regret Hydrogen".[7] There is a new focus on importing e-fuels, or not immediately supporting a hydrogen roll out in the transport sector. Moreover, CCS is being increasingly reconsidered.[8] All in all, the hydrogen discussion also masks the fact Europe's largest gas consumer is still struggling to determine what to do about its gas dependency, which will be hard to remove, and the unique infrastructure.
- Building renovation has been very slow (1% per year), and decarbonizing home heating is a headache: electric heat pumps are being deployed (too slowly) – 120,000 units in 2020.[9] So, what will happen with the 9 million households running on gas, and the 6 million on fuel oil, representing over 330 TWh in electricity use? Hydrogen boilers are largely unrealistic and solutions for everyone are not there yet. Decarbonizing the agriculture sector is being largely ignored.
- Decisively, the government has mobilized its recovery package to accelerate the deployment of green mobility, not least the charging infrastructure, lately with an additional €1 billion support cheque. The German car industry had been torpedoed by its dieselgate and the Tesla revolution, yet seems to have finally managed successfully to kick start the roll out of EVs: VW now supports a very early phase ban of combustion engine sales in Europe. Many battery cell gigafactories are being planned or being built, with carmakers being involved financially.[10]

7. Agora Energiewende and AFRY Management Consulting, *No-regret Hydrogen: Charting Early Steps for H2 Infrastructure in Europe*, 2021.
8. S. Cornot-Gandolphe, "CCUS in Europe: A New Role and Implications for France and Germany", *Briefings de l'Ifri*, Ifri, August 25, 2021, available at: www.ifri.org.
9. BWP, "Positives Signal für den Klimaschutz: 40 prozent Wachstum bei Wärmepumpen", January 19, 2021, available at: www.waermepumpe.de.
10. C. Mathieu, "Green Batteries: A Competitive Advantage for Europe's Electric Vehicle Value Chain?", *Études de l'Ifri*, Ifri, April 2021, available at: www.ifri.org.

Electricity Generation by Source, 2010-2020, TWh



Sources: Umweltbundesamt, BMWI.

Shining a Spotlight on Energy and Climate Policy Proposals (or Lack Of)

A first, major lesson from the campaign is that the necessity to reach climate neutrality by 2045 is undisputed. The Greens have come up with the most comprehensive plan, also triggering criticism about some concrete proposals with high social impact or limited decarbonization results, while the innovative redistributional aspects proposed have been largely muted. The CDU has taken an opposite stance: remaining as vague as possible, to the extent that even within its own ranks, criticism has been voiced about proposals that fail to meet requirements of the Paris Agreement and the constitutional court.[11] A team of experts published a set of recommendations to speed up renewables deployment for Armin Laschet less than a month before the election.

The necessity to reach climate neutrality by 2045 is undisputed

A major point of convergence has been the need to maintain industries in Germany and develop technological leadership, not least in software and low carbon solutions. A central focus of political discussions has been where to invest, who should invest and how this should be triggered and financed, with fundamental differences appearing on the need to subsidize massively or count solely on strong economic growth. What should be supported: state-driven regulation or market mechanisms? Should the next government raise taxes further and lift the budget deficit limit to invest massively? The answer is "yes" for the Greens and "no" for the CDU, and "not clear" for the SPD. Another key issue around which candidates have taken positions (or not) is how consumers and citizens should be involved and supported (CO_2 taxation, redistribution & support measures in the transport

11. Klimaunion and Zukunft Einschalten, "CDU-Wahlprogramm Klima-ehrgeiziger, aber nicht Paris-konform", June 21, 2021, available at: https://docs.google.com.

and housing sectors). Moreover, the extent to which the government should or should not prescribe technology choices, notably with the role of hydrogen in transport, has been picked up. Lastly, international issues have been raised (Nord Stream 2 – opposed by the Greens which have no credible plan though stopping it or on phasing out gas), the Carbon Border Adjustment Mechanism (opposed by Friederich Merz, CDU, who may become minister), the role of the European Central Bank (to be widened for the Greens and curtailed for the CDU). Meanwhile, nuclear power generation in neighboring countries has been heavily attacked by outgoing SPD Environment minister Schulze.[12]

- For Annalena Baerbock, there is a need for the state to borrow more to finance a massive, €500 billion investment plan over 10 years. CO_2 taxation on polluting fuels and activities needs to be increased further, accompanied by clear redistribution mechanisms – so called energy money (*Energiegeld*) – in favor of low-income households, or families with children. A building renovation wave must be engaged and supported by the state. A new Climate Protection Ministry with a veto right is needed to streamline policies. Coal plants should be phased out by 2030 already and emissions should be curbed by -70% by 2030. Rail transport and the circular economy are also to be further supported.[13]
- For Armin Laschet, the CDU and largely the FDP (liberals), what matters is not to think subsidies and further public indebtedness, but rather to plan for easing all the hurdles and burdens facing companies willing to invest in decarbonization, infrastructure and the digital transformation. Fighting climate change and enhancing well-being must go hand in hand. Other pillars will be support for innovation and market instruments in order to secure technological leadership, not least the CO_2 emission trading system. This includes unleashing bureaucratic hurdles and restricting rights to raise legal claims against rail, renewables or electricity transmission infrastructures and to accelerate procedures.
- Olaf Scholz and the SPD have developed a "Program for the Future" stating that the *EEG-Umlage* is to be phased out by 2025 and covered by the federal budget. Landlords are to cover the CO_2 costs and a new pact involving all stakeholders is to be worked out to streamline the deployment of renewables. Rooftop solar power is to be expanded everywhere possible. With growing CO_2 and ETS tax revenues, the modernization of 5 million homes is to be supported. By 2030, all public tenders for infrastructures are to use climate neutral equipment and materials. Public transport is to be supported, alongside train mobility and electrification. All public busses are to be climate neutral by 2030. Lastly, a 130 km/h speed limit is to be introduced. And of course, hydrogen is to be supported, alongside the circular economy. There is nothing specific on raising the CO_2 taxation, while candidate Scholz has stated that impacts have to be mild for citizens. Coal phase out is kept for 2038.[14]

12. BMU, "12 Punkte für die Vollendung des Atomausstiegs", March 11, 2021, available at: www.bmu.de.
13. "Die Grünen Bundestagsfraktion, Klimaschutz ist JETZT", August 25, 2021, available at: www.gruene-bundestag.de.
14. SPD, "Klimaschutz, der Arbeit schafft. Scholz packt das an", available at: www.spd.de; *Das Zukunftsprogramm der SPD*, 2021, available at: www.spd.de.

The Scale of the Challenge Is Not Reflected in the Quality of the Discussions

The election results and ensuing coalition combinations are still open and it will be very interesting to assess how the new, young generation of citizens mobilized and voted in a country where *Fridays for Future* have had such a strong impact. Moreover, a young YouTuber did shake up the CDU in 2019 by obtaining millions of hits from viewers in a video showcasing the ruling party's lack of interest and credibility on climate issues and has reiterated since in pointing to how several CDU elites are tied to fossil fuel companies.[15]

The next government will have no choice but to deliver more on decarbonization, accelerate the unfinished electricity transformation and trigger a comprehensive energy transition. It will seek to end symbolically the permanent pandemic crisis management situation and lead a forward looking, positive modernization and well-being agenda. There is a broad optimism about technological progress, and German leadership in it, which are expected to deliver the 2030 and 2045 targets, without radical behavioral change, and serious studies have confirmed this, not least from Öko-Institut/Prognos.[16] The underpinning concept will be to use the decarbonization as an opportunity for building a stronger, more resilient yet open German economy – and perhaps more inclusive. To what extent the state or private sector will be in the driving seat remains to be seen. One issue here will be how Germany will be able to combine the efforts and resources dedicated to the energy transition compared to its digital transition.

There is a broad optimism about technological progress

The campaign has already shown a certain level of maturity in as much as the leading candidates have all well grasped the key factors that need to be brought together to reach net zero: decarbonization, competitiveness and technological/industrial leadership in the field of low carbon technologies and digitalization, well-being, cost-efficiency and affordability. Last but not least, political and social support/consensus.

Yet how these will be combined effectively and concretely is still generally not addressed. A study by the German DIW institute has concluded that none of the programmes can meet the 2030 decarbonization target.[17] An illustration was the *CDU Wirtschaftstag* held on August 31, 2021, where key speakers stressed the need to rely on market mechanisms and preserve citizens' freedom, cut bureaucratic hurdles, promote hydrogen and refuse further taxes and subsidies, but fell short of outlining a coherent and number driven strategy. The Greens did try to address some painful aspects of this systemic transformation, and the social compensations needed, but that backfired as other candidates instrumentalized this to scare off voters from rising costs or limited freedoms.

15. Rezo, "Die Zerstörung der CDU", Mai 18, 2019, available at: www.youtube.com.
16. Prognos, *Klimaneutrales Deutschland 2045: Wie Deutschland seine Klimaziele schon vor 2050 erreichen kann*, June 2021, available at: https://static.agora-energiewende.de.
17. DIW ECON, "Wie viel Klimaneutralität steckt in den Wahlprogrammen?", available at: https://diw-econ.de.

The CDU has been challenged as both the Greens and SPD have become seriously engaged with industry leaders and representatives, its traditional electoral base, which have taken them very seriously. Challenges and concerns raised are manifold: high energy prices, growing energy needs, global competition, innovation, workforce skills, taxes. Whatever policy framework is envisaged, the new government can be expected to deploy robust policies to facilitate and support the decarbonization of the industry in order to secure and foster the *Standardort Deutschland*.

It remains to be seen if and to what extent Germany will make use of its potential massive budgetary firepower, given that a 2/3 majority in Parliament is required to end its deficit cap. Calls by Friederich Merz to reduce the current deficit (4.7% of budget deficit and create a level playing field for the next crises sound anachronistic, as if Germany was not facing a most daunting challenge.

European Dimensions and Implications

Candidates have shown knowledge of the EU Green Deal and the election will have overarching impacts on Europe. That possibly includes pressures on opening or restricting trade and external tax policy (CBAM), on the extent to which the ETS should be expanded and price levels should be pushed in a first stage, whether the European Commission should further emit bonds and launch a new recovery package (the expansion of the *Schuldenunion* is strictly opposed by the CDU, along the same lines as Austria and Finland), whether the Maastricht Stability pact should be reinstated or adjusted (again, opposed by the CDU), as well as concerning relations with China, the US, India and Russia (expected to remain strained, though a joint decarbonization vision could be set out for after 2024).

The election will have overarching impacts on Europe

The anti-nuclear rhetoric heard at the beginning of the campaign would need to ease in light of the massive challenges and uncertainties facing Germany, and a risk of isolation in Europe (and even from Washington). EU Member States should seek to maximize opportunities from differences in national energy mixes and decarbonization pathways, rather than seeking to impose their own model and technology views on each other. Otherwise, the resilience of the EU electricity system will be threatened. The ongoing price surge should be seen as a wake-up call. What matters is that there is European consensus, coherence and coordination, and that Member States showcase effective decarbonization results. This should now become a core macro criterion complementing the ones from the 2000s, which also need to evolve (the Stability Pact notably, but also State Aids).

Germany will have to recognize that some of its neighbors have adopted different pathways and technological strategies – the UK with nuclear, wind, hydrogen and CCS, France with nuclear and renewables, the Netherlands with wind, CCS, hydrogen and possibly, more nuclear. The German way is not a model that can fit for its neighbors. Technological neutrality in Europe is an essential condition to keep consensus among EU Member States on the final objective and to ensure that the EU can effectively decarbonize,

progress on gaining sovereignty and remain competitive. This is existential. Germany should lead with innovative technologies, redistribution and regulation. On the latter, the Netherlands are more advanced, notably with their SDE++ mechanism for competitive decarbonization auctions.

Perspectives for French-German Relations

The way climate change, along with digitalization, has moved up the political agenda in Germany stands in stark contrast to the preliminary political campaign issues emerging in France. Germany's parties have started to think about decarbonization in all sectors, for all GHGs, and involving all policies, whereas so far in France, discussions have merely focused on a completely misleading opposition between nuclear versus renewable energy, or whether to ban windmills.

France will have to showcase greater decarbonization achievements in other sectors than power generation and change a widely shared view which assumes the German *Energiewende* to be a total failure. It will face a neighbor which can devote much greater financial resources than its own possibilities, and which has unique industrial capabilities. Hence, even if the German election campaign has not much touched upon France, which is increasingly being seen with skepticism due to the EPR cost overruns, and because of political and economic uncertainties, the upcoming presidential campaign in France should carefully look at what has been and will be happening in Germany.

France will have an opportunity to accompany the new German government in the first weeks and months after taking office as it will get acquainted with key European and international issues. That window will close quickly as France's own election campaign heats up in the run-up to April 2022. But November 2021 to January 2022 could offer a unique 3-month opportunity, especially since the Fit for 55 package will be progressively negotiated and as the Convention on the Future of Europe will work out further reform proposals. Overcoming difference over the ETS extension to the transport sector will be key. The French EU Council Presidency and the German G7 presidency both start in early 2022, and will also offer momentum for working together on a climate security agenda.

An immediate priority will be to foster security of electricity supplies

In the field of energy, bilateral cooperation should focus on CCS, energy efficiency (and bringing renovation rates to 3%), sustainable cities, low carbon mobility, the decarbonization of steel, digitization, smart grids, artificial intelligence and 5G, decarbonizing heating and cooling, electricity storage, cyber security, social acceptance and inclusion. Last but not least, the development of skills and R&D. An immediate priority will be to foster security of electricity supplies when Germany's last remaining reactors are due to be shut down.

The new German government, in light of the disastrous increase in 2021 GHG emissions, sky high prices and obvious security of supply issues, will have to act responsibly: that must include to consider the option of prolonging some of its remaining nuclear reactors.

Conclusion

Germany succeeded with the reunification and faces a similar Herculean task now. Its new government will be held accountable, every year, for its decarbonization results. It may be that the Greens will be tested for the first time in Europe as to whether they can actually decarbonize. It may also be that the SPD or CDU will have a second chance to show that they can finally find new recipes to achieve stronger, cost-effective results.

The German elections are of systemic importance as they will kick start the core battle against GHGs in Europe's leading economy. Germany will have to develop unprecedented, decisive new environmental and industrial and redistribution policies and build the necessary consensus to accelerate its decarbonization. That will require an effective coalition and government, and new concepts and strategies – which do not yet exist.

This is especially important to France and the EU, not least because Germany has been economically strengthened in Europe, as it faced a mild recession in 2020, and has a much lower public debt level than France, Italy or Spain. Moreover, Berlin has been chosen by Washington as its new lead partner in Europe. But bowing to Washington rather than reinforcing the French-German axis, extended notably to Italy would have fatal consequences for the future of Europe, and Germany, in a rapidly degrading strategic environment.

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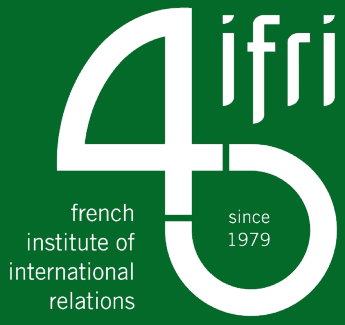

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