

HOW (NOT) TO PHASE-OUT COAL: LESSONS FROM GERMANY FOR JUST AND TIMELY  
COAL EXITS

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E3G (2020)

Stable URL: <https://www.jstor.org/stable/resrep28821>

Accessed: 20-09-2022 15:15 UTC

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**BRIEFING PAPER** SEPTEMBER 2020

## HOW (NOT) TO PHASE-OUT COAL: LESSONS FROM GERMANY FOR JUST AND TIMELY COAL EXITS

**FELIX HEILMANN & REBEKKA POPP**

The age of coal in Europe is coming to its end. The decision of Germany, the second largest coal country in the EU, to exit coal is part of this trend and sends an important signal globally. However, while the German coal phase-out provides German coal regions with support to move beyond coal, it also has many weaknesses that other countries seeking to chart their path out of coal should be careful not to replicate. These nine lessons from the German experience can therefore serve as benchmarks for just and timely coal phase-out processes elsewhere:

- (1) Agreeing and implementing a coal phase-out needs political leadership.
- (2) If a coal commission is convened, the government must ensure a transparent process and clearly communicate how the recommendations will be used.
- (3) Settling for a late coal exit date does not pacify the debate and can require future adjustments of the pathway when politics and market conditions further change.
- (4) Legal frameworks for the coal phase-out and transition support must balance the need for planning security with being flexible enough to adapt to changing circumstances.
- (5) Compensations for plant operators may be legitimate in exceptional circumstances and must be based on economic evidence and aligned with climate targets.
- (6) Developing Just Transition measures to accompany the coal phase-out needs strong involvement of regional and local stakeholders.
- (7) Just Transition measures must be aligned with climate and sustainable development targets.
- (8) Phasing-out coal requires governments to build-up renewable energy capacity and related infrastructure.
- (9) Decision-makers should consider best and worst practices elsewhere when designing a coal phase-out.



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## Introduction

**Pressure on coal is growing globally.** Coal is increasingly becoming unprofitable compared to renewable energies and is viewed as a financial risk by investors.<sup>1</sup> The COVID-19 crisis has further worsened the economic situation of coal plants as coal was the fuel second most hit by the fall in energy demand after oil.<sup>2</sup> To keep the targets of the Paris Agreement in reach, coal, the most carbon-intensive fossil fuel used for electricity generation, must be phased out in a just and timely way. Analysis shows that a coal phase-out is needed in all OECD and EU countries by 2030 and by 2050 in the rest of the world for the Paris targets to be achievable.<sup>3</sup>

**In the EU, the coal phase-out is rapidly advancing.** Between 2012 and 2019, coal-fired electricity production dropped by 50% and 93 GW out of a total of 143 GW remaining coal capacity are covered by national phase-out plans.<sup>4</sup> Globally, the coal fleet shrank for the first time in the first half of 2020, with more capacity being retired than opened due to the COVID-19 pandemic and retirements in the EU.<sup>5</sup>

**However, political and social barriers to the coal phase-out continue to exist.** Past experiences show that phasing out coal is a difficult process particularly in countries that rely heavily on coal for electricity generation. There are different approaches to governing the phase-out, from indirect measures via market forces or regulations that affect coal plants (such as air quality standards), e.g. in Spain, to direct measures such as mandated closures of power plants, e.g. in Slovakia.

**Germany's lengthy coal exit negotiations received considerable attention globally** as Germany is the second largest coal country in the EU in terms of coal-fired electricity generation, seven of the EU's top ten emitters in its emission trading scheme (EU ETS) are German lignite power plants<sup>6</sup> and it is also home to a large energy-intensive, competitive industry.

**This briefing identifies learnings as well as good and bad practices from the German coal phase-out process.** Based on this analysis it proposes nine benchmarks for governing coal phase-out processes primarily in Central and Eastern Europe (CEE) but also in other parts of the world. It builds on an earlier E3G analysis of the Coal Commission process.<sup>7</sup>

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<sup>1</sup> RMI (2020). [How to Retire Early: Making Accelerated Coal Phaseout Feasible and Just](#)

<sup>2</sup> IEA (2020). [Global Energy Review 2020](#)

<sup>3</sup> Climate Analytics (2016). [Implications of the Paris Agreement for coal use in the power sector](#)

<sup>4</sup> E3G (2020). [OECD & EU28 lead the way on global coal transition](#)

<sup>5</sup> Carbon Brief (2020). [Analysis: The global coal fleet shrank for first time on record in 2020](#)

<sup>6</sup> Ember (2018). [EU ETS emissions rise for first year in 7 years](#)

<sup>7</sup> E3G (2019). [The German Coal Commission – A Role Model for Transformative Change?](#)



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## Overview: Germany's coal exit legislation

In June 2018, Germany's governing coalition convened the "Commission for Growth, Structural Change and Employment" (known as "Coal Commission") mandated to propose a coal phase-out pathway and end date as well as financial support for coal regions. After controversial negotiations, the Commission presented its recommendations in a final report in January 2019. While the government adopted a proposal for the structural change law<sup>8</sup> regulating the financial support for coal regions in August 2019, it took until January 2020 to present a proposal for the coal phase-out law<sup>9</sup> regulating the phase-out pathway and end date. The adoption of both laws by the German parliament in July 2020 was preceded by heavy conflict over the content of the coal phase-out law.



Figure 1: Timeline of the German coal phase-out decision process

### What is in the coal phase-out law?

**The coal phase-out law regulates the coal phase-out pathway and end date.** It stipulates the phase-out of all coal plants by 2038 with the option to move the end date to 2035 during review moments in 2026, 2029 and 2032. Notably, this end date is not compatible with the Paris Agreement as EU countries need to exit coal by 2030 to limit the global temperature increase to 1.5 degrees<sup>10</sup>, a benchmark that is recognized by the international Powering Past Coal Alliance of which Germany is a member.<sup>11</sup>

**In its recommendations, the Coal Commission suggested a continuous phase-out of both hard coal and lignite.**<sup>12</sup> Such a steady decline of emissions is also

<sup>8</sup> Bundesgesetzblatt (2020). **Strukturstärkungsgesetz Kohleregionen**

<sup>9</sup> Bundesgesetzblatt (2020). **Gesetz zur Reduzierung und Beendigung der Kohleverstromung**

<sup>10</sup> Climate Analytics (2016). **Implications of the Paris Agreement for coal use in the power sector**

<sup>11</sup> Powering Past Coal Alliance (2017). **PPCA Declaration**

<sup>12</sup> KWSB (2019). **Kommission „Wachstum, Strukturwandel und Beschäftigung“ – Abschlussbericht**



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anticipated in Germany's climate law. **However, the pathway enshrined in the coal phase-out law deviates from this recommendation:** while coal capacities indeed decline continuously overall, the phase-outs of the more polluting lignite plants are delayed and occur in three large waves in the early 2020s, late 2020s, and 2038 (Figure 2). In addition, some hard coal capacities are planned to close earlier to compensate for the new 1.1 GW hard coal plant Datteln IV which went online in May 2020, even though the Coal Commission recommended to find a “negotiated solution” to keep it offline. The phase-out pathway will be reviewed in 2022, 2026, 2029 and 2032.

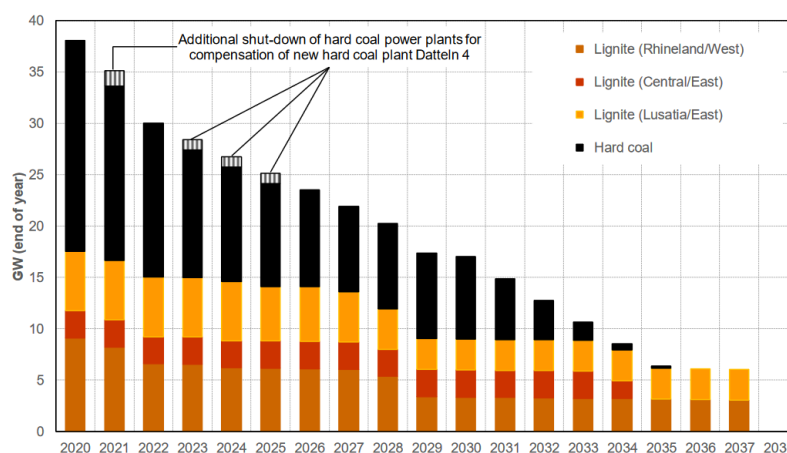


Figure 2: Phase-out pathway in coal phase-out law (Source: *Öko-Institut*)

**The law foresees two different mechanisms for the closure of lignite and hard coal capacities.** Hard coal plants will be phased out using an auctioning system until December 2027, with a possible extension for younger hard coal plants. Hard coal plant operators can tender capacities to be phased out for a certain compensation payment, with those units demanding the lowest payment to be phased out first. These payments are capped and decrease over time starting with 165,000€/MW in 2020.<sup>13</sup> In case the auctions do not lead to sufficient capacity reductions, the law also includes a mechanism for regulated phase-outs primarily based on age. From 2028 onwards, the remaining hard coal capacities will be phased out based on a regulated pathway without any form of compensation. Furthermore, the government will provide financial aid of up to €390/kW capacity for coal-to-gas switches of combined heat and power (CHP) coal plants.

**The closure and compensation of lignite plants was negotiated in an untransparent process between the government and the plant operators RWE and LEAG and formalized in a public-private contract which has become the**

<sup>13</sup> Bundesnetzagentur (2020). *Kohleausstieg*



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**subject of controversy.**<sup>14</sup> RWE, which operates the Western German lignite plants and mines, will receive a fixed amount of €2.6 billion for the closure of 5GW before 2030, and LEAG in Eastern Germany the fixed sum of €1.75 billion for the closure of 3 GW before 2030. Closures after 2030 will not be compensated.<sup>15</sup> It is unclear how the compensations were calculated, and the German Economy Ministry has not yet presented independent analysis to justify their amount. However, analysis by the German Öko-Institut suggests that compensations should be at least €2 billion lower given the bad economic outlook of the plants and existing business plans for future operation which already calculated with a drop in coal power generation.<sup>16</sup> Furthermore, the public-private contract makes it more difficult for the government to adjust the coal phase-out trajectory. It is subject to approval of the German parliament in autumn 2020.

### What is in the structural change law?

**The structural change law regulates the financial transition support for the three lignite regions** Lusatia (Brandenburg and Saxony), the Central German mining district (Saxony and Saxony-Anhalt) and the Rhenish mining district (North Rhine-Westphalia) and largely implements the recommendations of the Coal Commission. It consists of an €14 billion investment package for projects administered by regional governments and €26 billion in funding for federal measures until 2038. As part of the federal measures, it also sets up a new federal support programme that will finance non-investment measures in the lignite regions such as the hiring of staff. The two former lignite regions Helmstedt and Altenburger Land also receive €90 million each and communities with economically significant hard coal power plants receive up to €1 billion of support.

For the €14 billion that can be spent by regional governments, the law defines nine areas for investments including public services, digitalisation, tourism, research, and environmental protection. Notably, the law has been criticized for omitting renewable energy infrastructure and re-skilling measures from the list of areas for investments.<sup>17</sup> **The law prescribes that projects should be aligned with the national sustainability strategy and contribute to the creation of jobs or**

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<sup>14</sup> BMWi (2020). [Öffentlich-rechtlicher Vertrag zur Reduzierung und Beendigung der Braunkohleverstromung in Deutschland](#)

<sup>15</sup> The third operator of lignite plants in Germany, MIBRAG, is not receiving compensations as all its plants are phased out after 2030.

<sup>16</sup> Öko-Institut e.V. (2020). [Assessment of the planned compensation payments for decommissioning German lignite power plants in the context of current developments](#)

<sup>17</sup> BMWi (2020). [Stellungnahmen zum Strukturstärkungsgesetz Kohleregionen](#)

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**economic diversification.** However, the implementation and monitoring of this conditionality remains unclear. The €14 billion will be invested over three funding periods (2020-26, 2027-32, 2033-38) but only investments during the latter two periods are linked to the decommissioning of coal plants.

**The participation of local stakeholders like mayors in the development, selection and implementation of projects is not institutionalized** as the law leaves it up to the state governments to decide to what extent they involve local actors without clear requirements or benchmarks. However, the additional federal programme to finance non-investment measures will support local communities and social partners which contribute to the development and implementation of regional development plans and measures. The governance of the federal investments of €26 billion differs. They will be invested in existing and new projects, including in road and public transport infrastructure or the creation of new research facilities and federal agencies.

Federal and state governments signed an agreement to ensure long-term security for the transition finance.<sup>18</sup> Moreover, a committee made up of relevant federal ministries and the state governments of the coal regions will monitor the implementation of transition measures and can issue non-binding recommendations. In addition, the law stipulates a scientific evaluation of progress every two years, starting in June 2023.

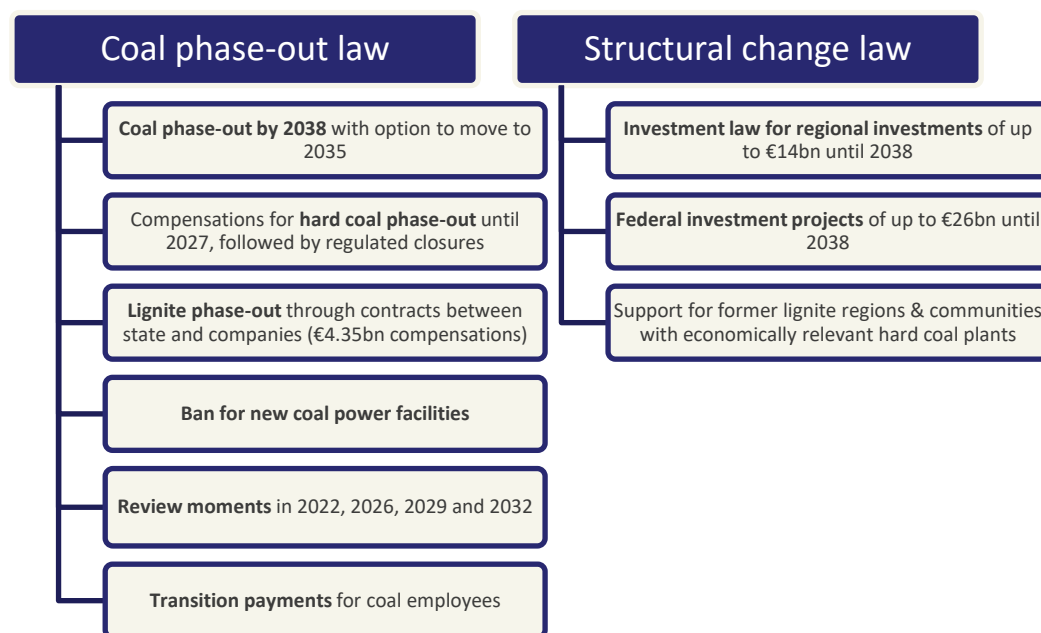


Figure 3: Summary of the coal exit legislation (Source: *Bundesgesetzblatt*)

<sup>18</sup> CLEW (2020). **German government and states seal coal exit support deal for mining regions**



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## Benchmarks for a timely and just coal phase-out

**While the German coal phase-out provides German coal regions with support to move beyond coal, it also has considerable weaknesses that observers should take note of.** The following nine benchmarks for a timely and just coal phase-out are based on the German experience and can inform phase-out deliberations and processes elsewhere.

### (1) Agreeing and implementing a coal phase-out needs political leadership

**Over the last years, a growing number of countries have announced their intention to phase-out coal-fired electricity production.<sup>19</sup> Such announcements are critical for kicking off important domestic transition processes** to ensure a Just Transition for affected regions while securing the achievement of climate targets. In some circumstances, domestic and regional barriers to a coal phase-out mandated by the national government may be so strong that bringing different stakeholders together in an advisory body such as a commission can help bridge certain political divides.

However, the expectations towards such a body must be communicated clearly, and they can only ever be one piece of the phase-out puzzle. **To avoid overloading a commission's mandate, political decision-makers should decide the 'what', mandating a commission to make suggestions for the 'how'.** This means that the national government sets a phase-out date and incentivizes the build-up of alternative renewable energy capacity while a commission identifies possible policy pathways including regional transition measures and funding needs to enable a coal phase-out by that date. Importantly, political decision-making over the phase-out date needs to be evidence-based and guided by the overarching goals of the Paris Agreement.

**Analysis of German process:** The German Coal Commission's mandate was wide-ranging because the governing parties were unable to agree on a phase-out date. Commission members had to tackle the conflictual tasks set out in the mandate, leading to complicated negotiations in which technical and political decisions were traded off against each other under high time pressure.<sup>20</sup> The fact that the Coal Commission managed to come to an agreement at all on any phase-out date for coal was initially seen as an important achievement by the Commission. The

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<sup>19</sup> Europe Beyond Coal (2020). [Coal Exit Tracker](#)

<sup>20</sup> E3G (2019). [The German Coal Commission – A Role Model for Transformative Change?](#)





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Commission's compromise was, however, extremely fragile, with NGO members of the Commission recording their disagreement with the phase-out date<sup>21</sup> and new political actors such as the Fridays for Future youth strikes rejecting the compromise outright.<sup>22</sup> The old conflict lines resurfaced when the government's draft laws deviated from the compromise, showing that the Commission process was not successful in fully pacifying the controversial coal debate.

**(2) If a coal commission is convened, the government must ensure a transparent process and clearly communicate how its recommendations will be used**

If a government sets up a commission to support the process of finding agreement on the coal phase-out, it needs a transparent process around the selection of members as well as its work and a clear commitment by the government on how the results of the commission's work will be integrated into political decision-making, including a clear timeline. Overall, **commissions are only a suitable tool if they increase transparency and stakeholder involvement relative to a business as usual scenario where incumbents dominate.**

When selecting commission members, governments should lay out a clear reasoning and criteria for which societal groups should be involved. They might even consider an open process requiring application for membership. The commission's deliberations must then take place with a clear commitment by the government on how the results of the commission will be used. Notably, this governmental commitment does not necessarily need to be a full transposition of the recommendations into government policy, which may even be questionable due to the potentially lacking involvement of elected representatives. Alternatively, the government could, for example, ask the commission to present a number of possible options that MPs can then vote on.

**Analysis of German process:** The German process had weaknesses on both these counts: first, the selection process for Commission members was not transparent and not well structured, as various lists with possible members circulated even in the nights before the members were formally announced.

Second, the government did not commit to a clear approach on how and when to implement the Commission's recommendations in advance of the process. While

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<sup>21</sup> Greenpeace (2019). **Sondervotum der Kommissionsmitglieder Martin Kaiser, Greenpeace, Kai Niebert, DNR, Hubert Weiger, BUND und Antje Grothus**

<sup>22</sup> Fridays for Future (2019). **Jugend fordert schnellstmöglichen Kohleausstieg und echte Zukunftspolitik**



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the governing CDU initially supported transferring all recommendations into law, Chancellor Merkel later deviated from this position, saying that it was never planned to fully implement them.<sup>23</sup> As a result, conflicts emerged once it became evident that the content of the laws did not reflect the recommendations of the Coal Commission and stakeholders attempted to make their individual asks part of the law.<sup>24</sup> For example, in January 2020, the government met with state governments of coal regions to agree on elements of the coal exit law.<sup>25</sup> Commission members were excluded from this agreement and, consequently, eight of the members from environmental organisations and scientific institutes, including one of the chairs of the Commission, publicly criticized the government's planned legislative proposal for constituting a breach of the Commission compromise.<sup>26</sup> Due to these conflicts, the publication and adoption of the laws had to be delayed multiple times.

### **(3) Settling for a late coal phase-out date does not pacify the debate and can require future adjustments of the pathway when politics and market conditions further change**

**Locking-in a late phase-out date creates an unstable transition process and leads to continued political and social conflict.** It is desirable to plan the phase-out process in advance, but plans must be based on realistic scenarios for the future trajectory of coal power in the electricity mix. In addition to economic factors which are already leading to the decline of coal across the EU and worldwide, these must also factor in the steps needed to achieve climate targets. **With the European Green Deal, the EU made clear that it is pursuing greater climate ambition and ramping up its climate targets, showing that all EU countries must begin planning for a timely and just coal phase-out.**

Not planning the phase-out, or settling for a late, unambitious coal exit, will require frequent adjustments of the pathway in the future to respond to the worsening economics of coal and tightened climate legislation. This decreases planning security for affected regions and exposes workers and industry to disruptive changes, while increasing the overall costs of the phase-out.

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<sup>23</sup> Oliver Krischer (2020). [Tweet vom 2. Juli 2020](#)

<sup>24</sup> Energate (2019). [Breites Bündnis sieht Kohlekompromiss in Gefahr](#); Ministerium für Umwelt Baden-Württemberg (2020). [Länderquartett gegen geplantes Kohleausstiegsgesetz](#)

<sup>25</sup> Bundesregierung (2020). [Bund-/Länder-Einigung zum Kohleausstieg](#)

<sup>26</sup> Clean Energy Wire (2020). [Former coal commission members say German government breached landmark exit compromise](#)



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Furthermore, late phase-out date are likely to intensify the coal exit debate as environmental groups and new movements are unlikely to accept it.

**Analysis of German process:** Even after the Coal Commission's agreement on a compromise, the German coal debate continued to be very contentious. Most prominently, the influential Fridays for Future youth strikers in Germany held their first major strike to protest the Coal Commission's agreement. Furthermore, large parts of the German climate movement which were not represented in the Commission, such as grassroots groups, continued to oppose the Commission's recommendations. Especially the new hard coal plant Datteln IV emerged as a new focal point for protests.<sup>27</sup> Likewise, the continued destruction of villages for the expansion of lignite mines has resulted in protests and lawsuits.<sup>28</sup> This shows that postponing the phase-out does not resolve its controversial nature. The rapid economic decline of coal, which was worsened by the COVID-19 economic crisis, further deepened the controversy.

#### **(4) Legal frameworks for the coal phase-out and transition support must balance the need for planning security with being flexible enough to adapt to changing circumstances**

**A regulated coal phase-out framework is meant to create planning security for regions and affected communities** because they can adjust their planning to the fact that plants and mines are closing according to a set timetable. However, to guarantee as much planning security as possible over the long-term, a coal phase-out framework needs to factor in potential external impacts on the foreseen pathway. Current developments in politics, economics and the financial world coupled with the COVID-19 economic crisis already lead to an accelerated coal exit in EU countries, altering closure schedules.<sup>29</sup> For example, this year, Austria and Sweden became coal free earlier than planned, Portugal moved its phase-out forward to 2023 and Spain will soon follow.<sup>30</sup>

**To avoid disruptive changes and plant closures that are out of sync with planned transition measures, the coal exit pathway and the structural change measures need to be able to flexibly adapt to these new realities ahead of time.** This requires the development of evidence-based scenarios that take into account

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<sup>27</sup> DW (2020). [Climate activists protest Germany's new Datteln 4 coal power plant](#)

<sup>28</sup> DW (2019). [As Germany phases out coal, villages still forced to make way for mining](#)

<sup>29</sup> E3G (2020). [Der deutsche Kohleausstieg – von der Realität überholt?](#)

<sup>30</sup> Europe Beyond Coal (2020). [Coal Exit Tracker](#)



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external pressures on coal and an earlier coal phase-out as well as related investment needs in, for instance, required infrastructure, renewable energy and storage. Moreover, regular review moments as part of a coal exit law serve to adjust the coal phase-out pathway in time and ensure earlier plant closures do not take regions by surprise. An adjustment of the phase-out pathway may for example require earlier availability of transition finance.

**Analysis of German process:** The German Coal Commission only suggested one pathway for the phase-out. However, already today, coal is exiting the electricity market more quickly. German coal power generation today is already at the level that the National Energy and Climate Plan expects it to reach in six years.<sup>31</sup> And German Economy and Energy Minister Peter Altmaier has now recognized that market forces could lead to an earlier coal exit.<sup>32</sup> This shows that pathways which fail to take relevant developments into account such as the increasing competitiveness of renewable energies and delay the coal phase-out, do not increase long-term planning security.

Moreover, as there are not enough review moments in the coal exit law, future governments are lacking opportunities for adjusting the pathway and end date in response to these developments. Even more problematically, the contracts with lignite operators further decrease the government's space for action.<sup>33</sup>

### **(5) Compensations for plant operators may be legitimate in exceptional circumstances and must be based on economic evidence and aligned with climate targets**

While countries may choose to use indirect market-based and direct regulatory instruments (like the EU's Industrial Emissions Directive<sup>34</sup>) for the phase-out as was the case in Spain<sup>35</sup>, some countries may want to mandate a legally binding phase-out pathway to increase long-term planning security. In exceptional circumstances it may be necessary to compensate coal plant owners for a legally mandated phase-out.

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<sup>31</sup> Reitz, Felix (2020). **Twitter**

<sup>32</sup> Tax (2020.) **Auch die Industrie braucht Ökostrom**

<sup>33</sup> ClientEarth (2020). **Vertrauensschutz für Braunkohlebetreiber und Ungewissheiten zu Lasten der Umwelt**

<sup>34</sup> Europäische Kommission (2017). **Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 establishing best available techniques (BAT) conclusions for large combustion plants**

<sup>35</sup> E3G (2019). **Accelerating the Coal-to-Clean Transition in Portugal and Spain**



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**Potential compensations must be based on an independent, transparent assessment of the lost revenues of coal plant operators and factor in the future economic outlook of plants.** Instead of determining a fixed amount of compensation ahead of the closure, a mechanism to determine the compensation payment once the plant goes offline could be developed. Compensation payments should also be balanced with competing interests for public spending and therefore include a conditionality for compensation money to be spent in line with long-term climate targets, such as reinvestment in renewable energy. Finally, compensations need to exclude liabilities arising from environmental laws and the polluter pays principle.

**Analysis of German process:** In Germany, the contract negotiated between the government and coal companies that guarantees lignite plant operators €4.35 billion in compensations continues to be a subject of conflict as it remains unclear how this amount was calculated. In the case of coal company LEAG, they are considered particularly controversial because leaked business plans show that the agreed phase-out pathway does not deviate much from its decommissioning plans in a business-as-usual scenario.<sup>36</sup>

There are concerns regarding the compatibility of these compensations with EU state aid rules, and a decision by the European Commission on this matter is expected in the coming weeks. Furthermore, hard coal operators have criticized the compensations regime as disadvantaging hard coal relative to lignite, and hard coal company Steag has filed an – unsuccessful – lawsuit against it. This illustrates that the tool of compensations does not guarantee a settled and stable phase-out pathway and must be carefully designed respecting competing interests without distorting the energy market.

## **(6) Developing Just Transition measures to accompany the coal phase-out needs strong involvement of regional and local stakeholders**

**It is a central aspect of a fair transition process to involve regional and local stakeholders in the development of support measures.** They have most expertise about regional priorities, strengths and weaknesses that should be incorporated into transition strategies. This also requires finding a balance between the generally more rigorous timeline of the policy-making process and often slower

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<sup>36</sup> ClientEarth (2020). [Coal phase-out compensation for LEAG](#)



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participation processes in the region that involve citizens to define a future vision for the region which require a longer timeframe.

**Analysis of German process:** The German states affected by the phase-out were involved in the entire process, while influencing opportunities for local authorities and civil society were not institutionalized in all stages of the process. The Commission's interim report and its final report included detailed regional profiles and the final report was accompanied by a list of potential projects in the regions. However, these regional profiles did not consider outcomes of participatory processes in each region as these had just started and their reconciliation remains unclear.

Overall, regional governments have various access points for shaping the coal phase-out process, while local actors lack many of these direct opportunities. For example, an agreement between the governments of the three lignite regions and the federal government formed the backbone of the proposal for the coal phase-out law<sup>37</sup> while local authorities lacked influence on this policy-making process. Furthermore, the dedicated structural change law that regulates financial support for the coal regions until 2038 also ensures a strong role for regional governments in administering €14 billion of the €40 billion of transition funding available. However, the involvement of local authorities in the development, selection and implementation of projects is not institutionalized.

## **(7) Just Transition measures must be aligned with climate and sustainable development targets**

Investments in the transition to a climate neutral economy are an opportunity for regions and communities to leap forward to a more sustainable and resilient future. **To make sure no stranded assets are created along the way, for example through investments in fossil gas infrastructure, all transition finance and measures need to be aligned with climate and sustainable development targets.**

**This can be achieved through a conditionality for such spending to be in line with, for example, the EU Sustainable Finance Taxonomy.**<sup>38</sup> Moreover, a target for investments into climate and biodiversity could be set, similar to the EU's long-term budget. Finally, transition plans need to be developed in close alignment with relevant national and international strategies and legislation, such as national

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<sup>37</sup> Bundesregierung (2020). **Bund-/Länder-Einigung zum Kohleausstieg**

<sup>38</sup> European Commission (2020). **TEG final report on the EU taxonomy**



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climate laws, National Energy and Climate Plans, national sustainability strategies and European and international climate and sustainable development targets.

**Analysis of German process:** It can be positively noted that the German structural change law prescribes that projects should be aligned with the national sustainability strategy. Moreover, a federal support programme aims to transition the affected communities in model regions for climate neutral, resource efficient and sustainable development. To this aim, some of the federal measures support, for instance, the set up of a competence centres and research institutes that focus on mitigation measures like low-carbon aircraft engines or the heat transition. However, it has been criticized that most federal measures focus on road infrastructure<sup>39</sup> and it remains unclear how the sustainability of measures will be assessed.

## **(8) Phasing out coal requires governments to build-up renewable energy capacity and related infrastructure**

**A timely coal phase-out is not possible without the build-up of alternative energy generation capacities and related infrastructure.** Renewables are already the cheapest source of newly built electricity generation in many EU countries, and the energy markets of countries with a larger share of renewable electricity generation have been less impacted by the COVID-19 economic crisis.<sup>40</sup>

**National governments have a strong coordinating role in creating the policy framework required for the expansion of alternative wind and solar capacities as well as zero emissions grid flexibility** – this may also imply lifting existing restrictions. This ensures security of supply, affordable electricity prices and lowers energy import dependency. A late phase-out date holds back the level of investment required for the build up of a renewables pipeline.

**To enable a coal exit, demands for the shut-down of coal therefore need to be complemented by campaigning for the expansion of renewable energy.** Civil society but also other actors like industry have a key function in advocating for the roll-out of renewable energy capacities if the government fails to make it a priority.

Alternative fossil fuels such as natural gas, presented by the gas industry as a ‘transition fuel’, are unsustainable due to the risk of stranded assets in the

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<sup>39</sup> BMWi (2020). **Stellungnahmen zum Strukturstärkungsgesetz Kohleregionen**

<sup>40</sup> Bloomberg New Energy Finance (2020). **Scale-up of Solar and Wind Puts Existing Coal, Gas at Risk**





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medium- to long-term as well as their large climate footprint which is worsened by upstream emissions of methane.<sup>41</sup> The burning of biomass, including firewood, is also considered unsustainable as forests are an important carbon sink.<sup>42</sup>

**Analysis of German process:** While Germany led the successful expansion of renewable energy with its ‘Energiewende’, renewables capacity growth stalled over the last years due to regulatory barriers, for example for wind power. In 2019, the expansion of onshore wind fell to the lowest level in 20 years. A recent agreement by the governing parties to ease minimum distance rules and abolishing a cap on solar power is a step in the right direction.<sup>43</sup> Existing renewables are nonetheless already contributing to the replacement of coal power in the electricity mix, providing almost half of Germany’s total electricity production in the first five months of 2020.<sup>44</sup> But to further contribute to the coal phase-out and overall transition to climate neutrality, a comprehensive reform of Germany’s Renewable Energy Act, expected later this year, will be necessary including an updated renewable energy target for 2030 that is based on a realistic assessment of future energy needs.

### **(9) Decision-makers should consider best and worst practices elsewhere when designing a coal phase-out**

There is no blueprint for a Just Transition out of coal. The best means for implementing a coal phase-out depend on national and regional circumstances. **However, when designing a coal phase-out process and corresponding policies, it is helpful for decision makers to observe lessons from efforts in similar countries and regions.**<sup>45</sup> Countries and regions can both benefit from international platforms that enable the sharing of experiences and best practices, such as the Powering Past Coal Alliance (PPCA) and the EU Commission’s Coal Regions in Transition Platform.

Examples from across the world illustrate the diversity of approaches relying on institutionalized negotiations and cooperation between stakeholders:

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<sup>41</sup> E3G (2020). [Gasinfrastruktur für ein klimaneutrales Deutschland](#)

<sup>42</sup> Ember (2019). [Playing with fire: An assessment of company plans to burn biomass in EU coal power stations](#)

<sup>43</sup> CLEW (2020). [German government coalition agreement removes key hurdles to renewables rollout](#)

<sup>44</sup> CLEW (2020). [Germany’s renewable power share jumps to 47 percent in first five months of year](#)

<sup>45</sup> See also Europe Beyond Coal (2019). [Solving the coal puzzle](#)





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- In **Canada**, a “Just Transition Task Force” was launched after the central government announced a coal phase-out by 2030. The task force was mandated to prepare expert advice for the government, preparing comprehensive recommendations to support workers and communities during the transition as well as more general principles for a Just Transition to be embedded in all actions.<sup>46</sup>
  - In **Chile**, after the government agreed with electricity producers to phase-out coal, a multidisciplinary commission was convened to oversee the shift away from coal.<sup>47</sup> Similar to Canada, this commission accompanied the phase-out after a political decision on the phase-out had been made.
  - In **Czechia**, a commission is currently deliberating a national coal phase-out, bringing together stakeholders in a set-up that is comparable to the German process. First results are expected in September 2020, but civil society actors have pointed out that the process is lacking transparency and local involvement, and risks locking in a late phase-out.<sup>48</sup>
  - In **Scotland**, the government convened a “Just Transition Commission” to advise the government on how to apply the ILO’s Just Transition principles to the move to a climate neutral economy by 2045. The commission, which takes an economy-wide approach, has successfully brought together trade unions and environmental groups, and even provided advice on the green recovery from COVID-19.<sup>49</sup>
  - In **South Africa**, the National Planning Commission initiated a process on Social Partner Dialogues on Pathways for a Just Transition, including social partners at national, provincial and sector levels. In the next phase, the process will be formalised nationally through the “Presidential Climate Change Commission” tasked with facilitating the country’s Just Transition to a low-carbon economy through a social dialogue approach also involving communities. Notably, the commission does not just focus on the phase-out of coal but on the implications of the economy-wide transition away from fossil fuels, building on a broad understanding of the Just Transition concept.

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<sup>46</sup> Canada’s Task Force on Just Transition (2018). **Final Report**

<sup>47</sup> International Climate Initiative (2018). **Chile plans to close coal-fired power stations**

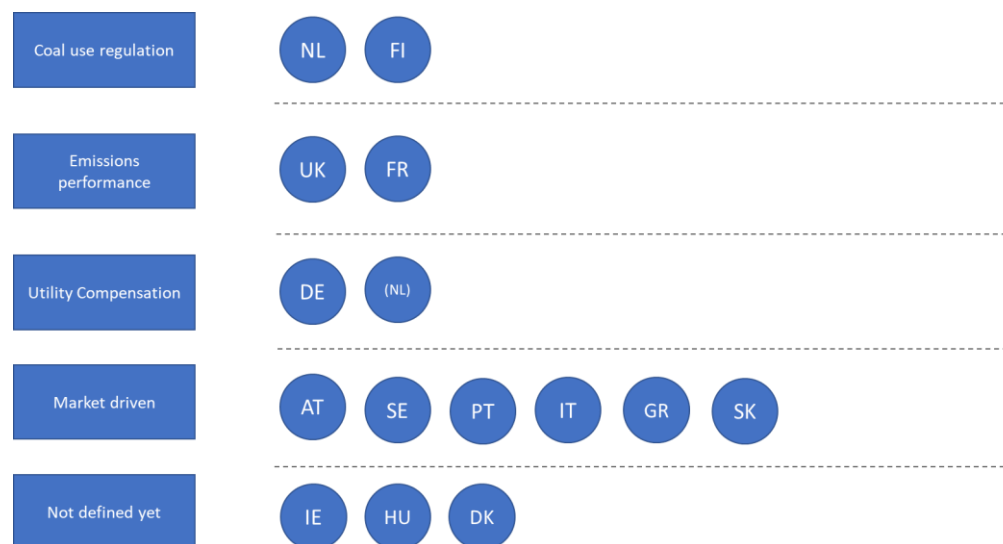
<sup>48</sup> Just Transition (2020). **Czech Coal Commission restarts negotiations after COVID-19 hiatus**

<sup>49</sup> Scottish Government (2020). **Just Transition Commission**



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**Analysis of German process:** Notably, Germany’s approach to the coal phase-out isolates the country in Europe. It is the only European country phasing out coal after 2030 and paying disproportionately high financial compensations to coal companies (*Figure 4*).



*Figure 4: Coal exit measures in European countries with a coal phase-out date (Source: E3G analysis)<sup>50</sup>*

<sup>50</sup> ‘Market driven’ can also refer to the abolishment of subsidies that support already unprofitable coal production as it was the case in Slovakia. In the Netherlands, compensations were not routinely paid but were used in a single case, when €52.5m were paid for the closure of the Hemweg power plant.



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### Acknowledgments

We would like to thank all the experts who have contributed input and ideas, including Jesse Burton, Artur Patuleia, Pieter de Pous, Alexander Reitzenstein, and Wiebke Witt.

### Partners

This project is part of the European Climate Initiative (EUKI) of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU). The opinions put forward in this briefing are the sole responsibility of the authors and do not necessarily reflect the views of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU).

Supported by:



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and Nuclear Safety



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Climate Initiative  
EUKI

based on a decision of the German Bundestag

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