

# No money for old lignite

Is compensation for German lignite operators legally possible?

**October 2019**

## **Executive summary**

Germany's **Coal Commission** has proposed closing hard coal and lignite power plants by 2038 latest (and by 2035 earliest). It recommends **compensating operators of plants that close by 2030**, using some combination of contractual agreements, tender procedures, and 'regulatory' solutions.

In this document, we analyse the **legal requirements** for any such compensation for lignite plants under the **German Constitution** and **EU State aid law** – which prevents subsidies being awarded to companies unless first approved by the European Commission. The analysis draws on the economic context – in which **lignite plants are now losing money**. Additionally, most plants have already operated for 25 years or more.

Given German and EU State aid law requirements to limit compensation to the minimum necessary, **it is hard to see a clear legal basis for awarding large sums in compensation to coal plant operators**.

### **Economic context – the sector is loss-making**

Recent analysis by the think tank Sandbag demonstrates **losses of €664 million in the first half of 2019** for Germany's lignite fleet – with further losses of as much as **€1.8 billion from 2020-22** for the older lignite plants. This shows what German industry has long known – lignite plants are not profitable and must close.

Almost **90% of plants will have already been operational for 25 years or more** by the time they shut – meaning they have already fully depreciated and operators have amortised their investments. This makes it hard to construct an economic – and, therefore, legal – argument in favour of compensation.

### **German legal framework – impact on operators' property rights**

In cases of redefinition of the scope of property rights under Article 14(1) of the German constitution, compensation needs to be paid for the only if the redefinition of rights results in **exceptional hardship or undue harm** for the operator. A law requiring closure of coal plants would be considered to **redefine the scope of operators' property rights** within the meaning of this provision.

The historic and future expected low profitability – or indeed, loss-making nature – of the German lignite fleet means that it would be challenging to establish exceptional hardship or undue harm. There may therefore be **no or very limited right to compensation under national law**.

### **EU State aid law – European Commission may not approve the compensation**

The European Commission considers compensation to be a State aid if it is not required under general principles of national law. Since the German Constitution is unlikely to require compensation for lignite operators, this is **likely to be a State aid** – and so requires **approval** from the European Commission.

The Commission will assess whether the State aid is compatible with EU law. Key tests include whether the compensation is **necessary, appropriate** and **proportionate** to the pursued objective of reducing CO2 emissions and air pollution. It must also be shown that the compensation actually **incentivises operators to close plants earlier** than under market conditions.

The age of most of the plants combined their low profitability / loss-making renders it **unlikely that the Commission would approve a large compensation package as State aid.**

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## 1 Introduction

1. Germany's Commission for Growth, Structural Transformation and Employment - commonly referred to as the **Coal Commission**<sup>1</sup> - has proposed phasing out hard coal and lignite in Germany by the mid-2030s.<sup>2</sup> This has led to significant public debate as to whether coal plant operators should receive compensation for closing early – and if so, how much. Industry – and in particular RWE – insists loudly on receiving huge sums; much of civil society considers this to be both legally and economically unnecessary and politically undesirable. This paper focuses on the legal aspects of this debate – and in particular, the extent to which proposed compensation for closure of lignite (as opposed to hard coal) plants is either legally required or permissible.
2. Germany has by far Europe's largest coal fleet – its plants have a total capacity of around 46.5 GWe, with Europe's next biggest coal player being Poland at around 29.5 GWe. Germany was responsible for 35% of the EU's generation of electricity from coal in the first six months of 2019. Approximately half this capacity (22 GWe) consists of lignite plants, the other half being fuelled by hard coal (24.5 GWe).<sup>3</sup>
3. In 2018, electricity generated in lignite plants provided 22.5% of Germany's power, with 12.9% coming from hard coal plants.<sup>4</sup>
4. The Coal Commission has recommended different models for implementing the phase-out for the different types of plants (hard coal and lignite) and periods of time (until 2022; until 2030; after 2030). A common theme of the recommendations is that compensation should be payable to operators of plants that are required to shut down before 2030. Whilst these recommendations are not legally binding, they have political force and will be implemented as much as possible.
5. The Coal Commission also notes that any such compensation payments would have to comply with EU State aid law. This is clearly correct – all government subsidies that constitute a 'State aid' in EU Member States must comply with State aid law.
6. It is therefore important to understand what type of compensation – if any – would be permitted under EU State aid law. In what follows, we consider:
  - a. The Coal Commission's proposals for compensation.

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<sup>1</sup> The report, published on 26 January 2019, is available in English at: <https://www.bmwi.de/Redaktion/EN/Publikationen/commission-on-growth-structural-change-and-employment.pdf>

<sup>2</sup> The final deadline proposed is 2038, with the possibility of this date being brought forward to 2035.

<sup>3</sup> See p.12 of Sandbag's analysis: <https://sandbag.org.uk/wp-content/uploads/2019/07/2019-Cash-Cow-report-1.3.pdf>.

<sup>4</sup> Data as presented by Clean Energy Wire: <https://www.cleanenergywire.org/factsheets/germanys-energy-consumption-and-power-mix-charts>.

- b. German constitutional law provisions with regard to compensation.
  - c. The EU's legal framework regulating the grant of subsidies (State aid law).
  - d. Application of State aid law to the proposed compensation for lignite plants closing before 2030.
7. Recent developments – including the leaking of a draft law on the phase-out of hard coal<sup>5</sup> – mean that we have focussed our analysis on the closure of lignite plants. We are conducting separate analysis of the proposals for hard coal plants. There are many similarities – but also some factual, legal and political differences – in how the law applies in these contexts.
8. Our analysis concludes that the proposed compensation for lignite plants is likely to constitute a State aid. As such, it would require approval from the European Commission following a detailed assessment of its compatibility with EU law. It is not possible to be certain of the outcome of that analysis, as it turns on a number of facts – including the precise details of the proposed compensation – that are not currently known. However, there are many legal obstacles to the European Commission granting approval for this form of compensation, and it certainly seems unlikely that it would approve large sums of compensation.

## 2 Lignite in Germany

### 2.1 The Coal Commission's compensation proposals

9. The Coal Commission has not proposed the level at which any compensation should be paid. Instead, it has focussed on the mechanisms by which such compensation would be agreed or determined, noting that "*existing structural differences between the lignite and coal-fired power stations in relation to CO<sub>2</sub>, emissions, operating company structure, the relationship with mining operations and the associated number of affected jobs will be taken into account*". These differences are seen to justify differing approaches<sup>6</sup> to compensation for the two categories of plants.
10. The Coal Commission prefers a solution for the closure of lignite power plants based on mutual agreement between the authorities and the plant operators, but states that "*[i]nsofar as no mutual agreement is achieved, the Commission recommends a regulatory solution with compensation payments in the framework of the legal requirements*".
11. Whilst further details need to be clarified, its proposals - differing over time and for hard coal and lignite plants - are:

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<sup>5</sup> Reported at <https://af.reuters.com/article/worldNews/idAFKCN1VQ28O>.

<sup>6</sup> The draft Coal Exit Law published by ClientEarth and Greenpeace does not see the need for such a differentiation. The draft is available here: <https://www.documents.clientearth.org/library/download-info/kohleausstiegsgesetz-gesetzentwurf-uber-die-beendigung-der-nutzung-von-braun-und-steinkohle-in-grosfeuerungsanlagen/>.

- a. 2018-2022: A total of 5 GW lignite power and 7.7 GW hard coal power expected to be closed compared to 2017, excluding closures already agreed as part of the security standby (also known as the lignite reserve). The additional closures - including compensation - should be contractually agreed with operators. The amount of compensation could be calculated either by tender procedures or based on the approach used for the lignite reserve (see below). Current plans are tender procedures for hard coal and negotiated shut-downs for lignite.
  - b. 2023-2030: Capacity to be reduced to 9 GW lignite and 8 GW of hard coal. The Coal Commission recommends "*voluntary measures such as a mutually agreed negotiated solution with the operators of the lignite mines and a voluntary close-down premium for the lignite capacity*". The compensation payments should decrease over time - lower compensation for power stations that close down later, however this decrease only applies to plants more than 25 years old at time of closure.
    - i. For lignite plants, this would involve a similar arrangement as for 2018-2022. If no mutual agreement is reached by 30 June 2020, a regulatory solution should be implemented with the legally required compensation payments.
    - ii. For hard coal plants, to the extent they do not convert to low-emission fuels financed under the Combined Heat and Power Act, they should receive voluntary close-down premiums via a tender process. Absent mutual agreement, a regulatory solution should be implemented with compensation payments.
    - iii. If regulatory measures are implemented, smaller power plants (less than 150 MW) should be subsidised, as appropriate, to convert from coal to gas by 2030. These subsidies pose their own problems from a State aid perspective, and are thus not considered in this paper.
  - c. After 2030: The Coal Commission proposes closure of coal plants by 2038 at latest, possibly brought forward to 2035. It does not make any specific recommendations for compensation during this extended period, except noting that "*Any necessary intervention in property rights must also be taken into account*".
12. Absent from the Coal Commission report is any indication of what level of compensation might be appropriate - leaving this, in the first instance, to 'mutual agreement' between operators and authorities.

## 2.2 Lignite plants losing money

13. Whereas historically coal has been a cheap source of electricity, this is no longer the case. Analysis by the think tank Sandbag demonstrates that in the first half of 2019, the German lignite fleet lost around €664 million (compared to a loss of only €68 million for the same period

in 2018). These losses were incurred both by old lignite units (pre-1990), which lost €476 million and newer lignite units, which lost €188 million in 2019.<sup>7</sup>

14. The future looks even less profitable for Germany's lignite fleet. Looking forward to 2022, Sandbag's model predicts losses of €1.8 billion for the older units, with newer units expected to more or less break even – but even they will not make a significant profit in this period. Given current trends in the ETS / carbon price (reaching over €29 in July 2019, up from €4.40 three years previously),<sup>8</sup> and other factors in the energy market, there is no reason to expect the lignite fleet to return to profitability in the future.
15. The likely future unprofitability of these power plants is further demonstrated by the fact that, according to analysts' estimations, RWE's market value includes a valuation of negative €4 billion for its conventional power generation assets.<sup>9</sup>
16. This contrasts with requests from the German coal industry for high levels of compensation in return for plant closures. RWE's CEO Rolf Martin Schmitz has proposed<sup>10</sup> compensation of €1.2 billion to €1.5 billion per GW - which equates to around €56 billion to €70 billion for a total hard coal and lignite phase-out. This is an incredible figure for a number of reasons, in particular:
  - a. It would be a lot cheaper for the government simply to purchase RWE in its entirety and close the plants down, based on its share price in the first half of 2019 (valuing it in the region of €13 - 15 billion).
  - b. Sandbag's report projects that from 2020-2022, old lignite units are expected to *lose* €213 per KW of produced energy.
17. This is the context in which the compatibility with State aid law of the proposed compensation must be assessed.

### 3 Assessment under the EU State aid legal framework

18. EU State aid law regulates financial support from the state to particular companies or sectors. No State aid can be granted unless first approved by the European Commission as compatible with the internal market. If the German government plans to compensate coal plant operators, there are therefore two questions: (1) does this compensation qualify as a State aid, and (2) if it is a State aid, would the Commission approve it as compatible with the internal market?

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<sup>7</sup> <https://sandbag.org.uk/project/the-lignite-cash-cow/>.

<sup>8</sup> <https://sandbag.org.uk/carbon-price-viewer/>

<sup>9</sup> See for example <https://www.bloomberg.com/news/articles/2019-01-27/german-coal-exit-leaves-rwe-with-compensation-and-job-guarantees>.

<sup>10</sup> <https://www.reuters.com/article/us-rwe-results-idUSKCN1QV0OE>

19. State aid granted without the European Commission's approval can be subject to recovery orders from the Commission or national courts or authorities – meaning it would have to be repaid in full, with interest, by operators to the government. Industry and government alike will be very keen to avoid this risk.

### 3.1 Is compensation for closure a State aid?

20. The first stage in any assessment conducted by the European Commission is to ask whether the proposed compensation constitutes a State aid. Only if it determines that the compensation is (or could be) a State aid does it need to consider whether the aid is compatible with EU law.

21. Support from the state to a company is a State aid where the following criteria are all met:<sup>11</sup>

- a. the support is financed through State resources;
- b. it grants the company an advantage that it would not have obtained under normal (market) conditions;
- c. it is selective, in that it favours certain undertakings or the productions of certain goods compared to others;
- d. it distorts or threatens to distort competition; and
- e. it has the potential to affect trade between Member States.

#### 3.1.1 Four of five State aid criteria – almost certainly met

22. Compensation for coal plant closures would be (a) financed through State resources. The Coal Commission's report states that there should be no surcharge on electricity prices - meaning compensation would likely come from the national budget.<sup>12</sup>

23. Criterion (c) selectivity is certainly met as only lignite plants closing by 2030 at the latest would be entitled to receive compensation, as opposed to owners of other power plants.<sup>13</sup>

24. As for (d) impacts on competition and (e) potential to affect trade between Member States, coal plant closures will mean that electricity will have to be produced by other generators,

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<sup>11</sup> Article 107 TFEU.

<sup>12</sup> Even if financed via network tariffs levied on electricity consumers, or some other levy on electricity suppliers or traders, rather than coming directly from the national budget, EU law is interpreted in a way that means this would also likely involve State resources.

<sup>13</sup> See e.g. the decision of the Commission in case SA.42536 - Germany - closure of German lignite-fired power plants (the **Lignite Reserve Decision**), paragraphs 43-44.

affecting the merit curve<sup>14</sup> and hence the wholesale electricity price. Electricity market liberalisation and interconnections between Germany and neighbouring states mean that the Commission will assume the measure impacts competition and trade between Member States.<sup>15</sup>

### 3.1.2 The final State aid criterion – does the compensation confer an advantage?

25. The key question in determining whether compensation for lignite plant closures is a State aid is whether it grants the company an advantage that it would not have obtained under normal (market) conditions (b).
26. Whether such an advantage exists turns mainly on the question of whether German law would anyway require lignite operators to be paid compensation if the government passed a law requiring their plants to shut down - but without specifically legislating for compensation to be paid. This reflects the *Asteris* jurisprudence, where the Court of Justice of the EU held that damages payable by the government to compensate for damage caused *by* the government do not confer an advantage, and so do not constitute State aid. It is therefore necessary to consider what is required under German law.<sup>16</sup>

### 3.1.3 Does the national legal framework require compensation?

27. The German Constitution protects the right to property. Article 14(1) states that "*Property...shall be guaranteed. [Its] content and limits shall be defined by the laws*". Requiring lignite plants to close is considered to be a redefinition of the scope of a property right under Article 14(1) rather than an expropriation under Article 14(3).<sup>17</sup> Whilst expropriations have to be compensated, redefinitions of the scope of a property right usually do not trigger a right to compensation – except in limited circumstances of undue hardship, where this cannot be balanced by other measures.<sup>18</sup> For this reason, the Scientific Services (Wissenschaftlicher Dienst) of the German Bundestag have concluded that a coal phase-out is in principle legally possible without providing any compensation for plant operators – subject to a case-by-case

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<sup>14</sup> This is the ranking of available sources of electricity based on ascending order of price; typically, electricity with lowest marginal cost will be the first to be brought online.

<sup>15</sup> See e.g. the Lignite Reserve Decision, paragraphs 47-48.

<sup>16</sup> CJEU, 27 September 1988, C-106/87 - *Asteris and Others v Greece and EEC*, paragraph 23, which states: "*State aid, that is to say measures of the public authorities favouring certain undertakings or certain products, is fundamentally different in its legal nature from damages which the competent national authorities may be ordered to pay to individuals in compensation for the damage they have caused to those individuals.*"

<sup>17</sup> This is because an expropriation would require a transfer of property to the state, which would not happen with coal plant closures – even where the government legislates for those closures to take place. This is demonstrated by arguments of the German authorities and the European Commission in the Lignite Reserve discussed below and nuclear phase-out cases.

<sup>18</sup> See for example German Constitutional Court, 06 December 2016 – 1 BvR 2821/11.

examination of whether individual operators would be subject to unreasonable economic hardship.<sup>19</sup>

28. Such hardship or burden might be argued to occur with respect to the closure of lignite plants where the following circumstances (or some combination of them) apply:
- a. Investments made in the plant (e.g. to build it or make substantial improvements) have not yet been fully amortised / recouped; it is also relevant, however, that there is no "right to full amortisation", that is, no automatic assumption that there is an undue burden or exceptional hardship simply because the investments are not fully amortised.
  - b. The plant remains valuable at the time it is forced to shut down (e.g. it is expected to make reasonable profits in the future).<sup>20</sup>
  - c. The operator could legitimately expect at the time of investment that the regulatory framework would not change.
29. If these circumstances applied, damages might be payable under German law, to ensure that the operator did not make a net loss on an investment made at a time when they could legitimately expect that the regulatory framework allowing further profits to be made would not change.
30. However, where one or more of these factors do not apply, it is harder to see how a coal plant operator could claim that they were entitled to compensation – beyond, potentially, costs directly related to closing the plant earlier than planned.
31. The fact that lignite plants are already making losses, and certainly no significant profits, is a strong indication that their operators cannot be considered likely to be exposed to an exceptional burden or undue hardship for being forced to close their plants. Quite the opposite – closing down the plants potentially averts future losses.
32. Moreover, research by German energy think tank Agora Energiewende suggests that coal power plants would have typically amortised their investments by no later than 25 years after being commissioned. On that basis, they conclude that no compensation would be required under Article 14 of the Constitution for plants commissioned 25 years prior to their closure<sup>21</sup> - and this covers the large majority of Germany's lignite (and hard coal) plants.<sup>22</sup>

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<sup>19</sup> <https://www.bundestag.de/resource/blob/627102/94bf33cc85b7f1dc065db0c2c89c5738/WD-3-033-19-pdf-data.pdf>.

<sup>20</sup> Expectation of future profit generation was a factor in the Commission approving compensation for mothballing and closure in the Lignite Reserve Decision, in particular, paragraph 43.

<sup>21</sup> [https://www.agora-energiewende.de/fileadmin2/Projekte/2015/Kohlekonsens/Agora\\_Rechtsgutachten-Kohlekonsens\\_WEB.PDF](https://www.agora-energiewende.de/fileadmin2/Projekte/2015/Kohlekonsens/Agora_Rechtsgutachten-Kohlekonsens_WEB.PDF).

<sup>22</sup> Assuming the earliest compulsory closures would occur between 2020 and 2022, only 24 out of 196 units (mostly hard coal) would be eligible for compensation on this basis, and by 2030 the number falls to 16

### 3.1.4 Conclusion

33. The national legal framework would therefore likely only require compensation for a very small proportion of legally required lignite plant closures. This means that for at least a large majority of plants, any compensation received under the proposed phase-out law would be a State aid – and so could be granted only if the European Commission approves it as compatible with State aid law.

## 3.2 Would the Commission approve the aid as compatible with the internal market?

34. If the Commission considers that the support is a State aid, the next step is for it to determine whether that State aid is compatible with the internal market.

35. The European Commission assesses the compatibility of aid based on the Treaty on the Functioning of the European Union (TFEU), and specifically based on Article 107(3)(c). This states that the Commission may find aid to be compatible if it "*facilitate[s] the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest*".<sup>23,24</sup>

36. Under Article 107(3)(c) TFEU, the Commission approves aid on this basis only where a number of criteria are met:

- a. Contribution to a well-defined objective of common interest;
- b. Need for State intervention;
- c. Appropriateness of the aid measure;

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units. Analysis based on Europe Beyond Coal data, specifically column J ('Commissioning year') of the tab 'Unit': <https://beyond-coal.eu/data/>.

<sup>23</sup> Compatibility of aid in the energy sector is ordinarily assessed on the basis of the Guidelines on State aid for environmental protection and energy 2014-2020 (EEAG). However, the EEAG do not cover the situation for aid to compensate closure of electricity generation plants, so it must be assessed based directly on the TFEU.

<sup>24</sup> This was the basis on which the Commission assessed the State aid in the Lignite Reserve Decision; however, the Commission did not provide a clear explanation as to why the mothballing / closure of lignite plants was considered an economic activity. The Commission merely stated that it did so "because no Guidelines have been adopted that provide guidance as to the Commission's assessment of similar measures", and in particular that they are not covered by the EEAG. There appears to be considerable ambiguity as to whether this is the correct approach, and one would hope this is considered in more detail in any compatibility assessment of the proposed aid for the closure of lignite plants.

- d. Incentive effect;
  - e. Proportionality of the aid;
  - f. Avoidance of undue negative effects on competition and trade between Member States.
37. It is worth highlighting, that in light of these requirements laid out in EU State aid law, it becomes clear that the political situation, e.g. that the government is sticking to the compromise on a political bases, is not a criterion to be considered by the Commission.
38. The Commission has some discretion when considering these criteria; it is therefore instructive to bear in mind how the Commission approached this topic in similar cases. The most comparable case to date is the Commission's Lignite Reserve Decision,<sup>25</sup> in which the Commission approved Germany's plans to compensate operators of eight lignite units for mothballing and subsequently closing those units.<sup>26</sup> This decision has many parallels with the present situation, and plays an important role in understanding how the European Commission might deal with the proposed compensation for lignite plants closures.

#### (a) A well-defined objective of common interest

39. In the Lignite Reserve Decision, the European Commission considered that the aid pursued the common interest objective of reducing CO<sub>2</sub> emissions and air pollution in Germany. In line with the Coal Commission's report, it would likely reach the same conclusion for aid in the form of compensation for lignite plant closures.

#### (b) A need for State intervention

40. A need for State intervention also appears superficially clear – without some form of intervention from the State, market forces alone would not achieve equivalent reductions in CO<sub>2</sub> emissions and air pollution in Germany – specifically, they would not lead to lignite plant closures on this timescale. At least, that would be the clear position of industry, and was the approach taken by the European Commission in the Lignite Reserve Decision (paragraph 63). However, the low profitability (and often, loss-making nature) of many lignite plants – as demonstrated by the Sandbag analysis, above – suggests that at least some lignite plant operators may decide to close their plants prior to 2030 under market conditions alone, reducing the need for State intervention. This must raise at least some doubt for the European Commission as to whether this criterion is met.

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<sup>25</sup> Available at [http://ec.europa.eu/competition/state\\_aid/cases/261321/261321\\_1762503\\_157\\_2.pdf](http://ec.europa.eu/competition/state_aid/cases/261321/261321_1762503_157_2.pdf).

<sup>26</sup> The Commission did so on an 'either / or' basis - unable to conclude whether the measure was a State aid, the Commission decided to assess compatibility, and approved the aid on the basis either that it was not State aid, or if that if it was State aid, it was compatible with the internal market.

### (c) Appropriateness of the aid measure

41. The criterion of appropriateness requires consideration of whether the aid measure is an appropriate instrument to address the policy objective concerned. An aid measure will not be considered appropriate if the same positive contribution to the common interest objective pursued is achievable through other less distortive policy instruments or other less distortive types of aid instruments.<sup>27</sup>
42. This means that Member States must demonstrate why other potentially less distortive forms of aid – as well as of policy interventions that involve no State aid at all, but which could achieve the same objectives – are less appropriate.<sup>28</sup> Likewise, it must be ensured that the aid measure does not make it harder to achieve other common interest objectives.<sup>29</sup>
43. Applied to the German lignite plant closures, the authorities must assess whether a different policy / tool would be more appropriate for purposes of securing the decarbonisation and air quality objectives pursued. Assuming that closure of coal and lignite plants were to be considered appropriate, the question becomes - would there be another way of securing their closures which is less distortive of the internal market than a compensation?
44. In this respect, the German authorities would be required to demonstrate that they had considered other possible phase-out measures, including those being implemented in other countries.<sup>30</sup> Such measures could include (but need not be limited to) the following:
  - a. Following the UK approach of introducing an emissions intensity limit. The UK government has announced plans to close existing coal plants by 2025. This would be achieved by introducing an emissions intensity limit of 450g CO<sub>2</sub>/kWh applicable to combustion of solid fuels in 2025, which limit is not achievable for hard coal or lignite combustion. The announcement was made in January 2018, giving operators seven years to plan for the closures, and has not been accompanied by any proposal for compensation.
  - b. Considering again some of the options described (and dismissed by the German government) in the Lignite Reserve Decision. This includes *"the introduction of a generally applicable emission standard for fossil fuel, the introduction of a national emission budget applicable to individual power plants, the auctioning of a national*

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<sup>27</sup> See for example paragraph 40 of the EEAG, which although not specifically applicable in this context provide helpful explanation of some of these concepts and examples of their application.

<sup>28</sup> See for example paragraphs 45-46 of the EEAG.

<sup>29</sup> Paragraph 43 of the EEAG gives the example that *"[a] measure addressing a generation adequacy problem needs to be balanced with the environmental objective of phasing out environmentally or economically harmful subsidies, including for fossil fuels."*

<sup>30</sup> It should be noted that just as the Coal Commission's report is not legally binding (merely politically persuasive) within Germany, nor does it in any way restrict the alternative phase-out measures to be considered in the European Commission's State aid compatibility assessment.

*emission budget and a so-called climate contribution which would make it more expensive for power plants to emit"* (paragraph 67). The German government would need to demonstrate that these options remain inappropriate, taking into account developments in the market and policy frameworks.

- c. Legislating for the successive closure of lignite plants by 2030, without making any provision for compensation. The substantial lead-in time and likely non-profitability of lignite plants during that period would place significant obstacles in the way of operators' claims of entitlement to compensation under Article 14 of the Constitution.
45. Given the potential costs of the proposed compensation, a full assessment of these alternatives, as well as of the detailed design of the proposed compensation measure, would be required before it could be determined whether the compensation linked to the phase-out obligation is appropriate.<sup>31</sup>

#### (d) An incentive effect

46. An incentive effect is established if the aid changes the behaviour of the beneficiary in such a way that it engages in an activity which it would not carry out without the aid or which it would carry out in a restricted or different manner. In the Lignite Reserve Decision, the Commission concluded that plant operators would not close their plants as quickly without the aid, which incentivises them to shut down in return for payments. In principle, a similar conclusion could be reached in the present case.
47. However, the huge losses that Sandbag have modelled for the German lignite fleet mean that even absent compensation the operators may choose to close their plants on economic grounds before 2030. This is exactly what has been seen in other EU countries in recent years. For example, in the United Kingdom, there were 17 active coal plants remaining in 2012. By 2019, only 7 of these remained in operation - the others all choosing to close for economic reasons. It seems possible that economic factors such as the high ETS price, requirements to invest in new pollution abatement technologies, and increasing price competitiveness of other generation technologies could economically drive the closure of Germany's hard coal and lignite plants.
48. In assessing the incentive effect of the measure, the European Commission would have to model these possibilities, based on a comprehensive assessment of the economics of each lignite plant that could benefit from the compensation. Only by comparing the outcomes of these models against the requirements of the coal plant closure law can it be determined whether the measure would have an incentive effect. The German legislator and maybe the

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<sup>31</sup> An example of the type of detailed assessment requirement can be seen in the European Commission's decision in SA.34947 for support to the Hinkley Point C Nuclear Power Station. That decision is over 100 pages long and the length of the decision is justified by the complexity and amount of the proposed aid, which was in the tens of billions of pounds. The decision includes extensive consideration of comments received on the appropriateness of the aid measure.

authorities - and the Commission - should be extremely wary of the possibility that any compensation scheme may have perverse incentives, that is, operators may now try to keep plants open that would otherwise close in the face of deteriorating economics with the specific intention of encouraging the grant of State aid for compensation.

#### (e) Proportionality of the aid

49. The proportionality test concerns the question of whether the aid amount per beneficiary is limited to the minimum needed to achieve the environmental protection or energy objective pursued. For example, paragraph 70 EEAG states that "*As a general principle, aid will be considered limited to the minimum necessary if it corresponds to the net extra cost necessary to meet the objective compared to the counterfactual scenario in the absence of aid. The net extra cost is determined by the difference between the economic benefits and costs...of the aided project and those of the alternative investment project which the company would carry out in the absence of aid, that is the counterfactual scenario.*" This requires an extremely detailed analysis by the German legislator and authorities and the European Commission – especially if the proposed compensation is of the order of magnitude currently sought by operators, in the tens of billions of Euros in total.
50. That analysis would have to consider the 'net extra cost' of phasing out lignite in-line with the government's timetable. This will include considering future lost profits of the lignite operators from closing early, together with any additional costs related to closing down at an earlier date (as well as any savings or avoided losses from such early closure). Given that German lignite plants are not (or are barely) profitable, the 'lost profits' element of the net extra cost of being required to phase-out lignite by 2030 is likely to be extremely low, if not zero.
51. (Note that costs incurred with respect to closing the plant, such as site remediation, social security payments for staff whose jobs are lost, and so on are likely to be incurred regardless of the date at which the plant closes - so the 'net extra' element of these costs might be calculated by reference to the opportunity cost of investing that money in closures earlier, rather than having that money available to generate profits from other investments. It is hard to see what other substantial 'net extra costs' there could be from an early closure.)
52. In this context, it is worth highlighting that the assumptions underpinning the levels of compensation in the Lignite Reserve Decision have proven to be inaccurate. At the time of the Decision, the German authorities informed the Commission that the estimated cost of the measure would be approximately €1.6 billion. The major component of this estimate was expected costs and revenues of the plants over four years (paragraphs 11-14). In reality, updated modelling by Sandbag shows that the combined net profits foregone by those eight lignite plants are only €209 million.<sup>32</sup> This demonstrates the need for a thorough analysis

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<sup>32</sup> See Sandbag's updated analysis made available at <https://docs.google.com/document/d/1J3qf8XkWxkNBI-NA3Umf9YpdyYyFG6lccq1SYyK4DZU/edit>.

based on the most accurate data, and recognition that lignite's profitability is deteriorating rapidly.

53. Given that net extra costs are likely to be low, and given that proportionality is determined by reference to such costs, it seems likely that the European Commission could only approve a minimal amount of compensation as compatible with the internal market. The total that could be approved would certainly be much lower than the €1.2 billion to €1.5 billion per GW sought by RWE (see above).

#### (f) Avoidance of undue negative effects on competition and trade between Member States

54. Avoidance of undue negative effects on competition and trade between Member States is rarely the factor that renders aid incompatible with the internal market. However, the European Commission still assesses compliance, and in the Lignite Reserve Decision it gave particular consideration to the question of whether closure of plants would have an impact on the wholesale electricity market. It concluded that the measure was designed to have a gradual exit over time, and that the lost capacity - around 2.5% of the market - could be replaced by other generation sources.
55. The Commission would likely reach a similar conclusion for the closure of all hard coal and lignite plants as proposed by the Coal Commission. Recent research has found that phasing out of coal power alongside the expansion of renewables to a predicted 65% of the power mix by 2030 would lead to an increase in power prices of only 1%<sup>33</sup> – so potential negative effects of the coal phase-out on the market would be very limited and would not outweigh the pursuit of the objective of common interest to reduce CO<sub>2</sub> emissions.
56. A question not considered in the Lignite Reserve Decision –nor in any more recent analysis from the European Commission – is whether the *payment* of large sums in compensation to operators of lignite plants (not only closing them down) – could itself lead to a distortion of competition. This could be the case if, for example, they would ordinarily suffer losses if they were to continue operating lignite plants – and where compensation for early closure is incorrectly premised on the future profitability of such plants. Moreover, a key principle of State aid law is that aid should not be granted to companies in financial difficulty in circumstances where their long-term viability is not guaranteed. This relates to, and emphasises the importance of, the detailed analyses of appropriateness and proportionality referred to above.

## 4 Conclusions and recommendations

57. The European Commission has shown an increasing appetite to act strongly against unlawful State aid granted to large corporations. It has used its powers to recover unlawful aid, including some huge sums – most famously, ordering recovery of €13 billion in tax advantages granted

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<sup>33</sup> See report published by Agora Energiewende on 12 August 2019: <https://www.agora-energiewende.de/en/press/news-archive/the-german-coal-compromise-and-its-significance-for-the-energy-industry/>.

to Apple by the Irish government.<sup>34</sup> For this reason, it is almost inconceivable that the German government would decide the grant of vast sums in compensation to its coal industry in return for shutting plants unless the Commission first approved this as compatible with State aid law.

58. The above analysis demonstrates the difficulties that the German government will encounter in designing a compensation scheme that is compatible with State aid law. In particular:

- a. It must establish that the compensation is required under German national law – this would help the government argue that the compensation is not a form of State aid, as it would not grant lignite operators an ‘advantage’. This could be hard to establish – for example, the unprofitability of the lignite industry and the fact that most plants have been operating for more than 25 years (and therefore have recouped any capital investments) means that operators will struggle to demonstrate that closure will cause exceptional hardship or an undue burden.
- b. If the government believes the compensation would be required under German national law, it would still be very strongly advised to notify the Commission and seek its approval. If the compensation is not required under German law, then it is very likely to be a State aid. In this case, the European Commission will need to be notified and will have to assess whether it is compatible with the internal market.
- c. Assuming that the compensation is a State aid – or if this possibility cannot be ruled out - the European Commission will have to assess whether the aid meets the criteria for compatibility with the internal market. This will include assessing whether payment of compensation is an appropriate tool for securing the objectives of reducing CO<sub>2</sub> emissions and air pollution in Germany (the recognised objectives of aid in the Lignite Reserve Decision), whether payment of aid has an incentive effect in securing earlier closure of coal plants than otherwise would occur, and whether the amount of aid proposed is proportionate to the objectives pursued. The lack of profitability of the German lignite industry, the age of the plants concerned, and the potential for large compensation payments to distort the energy market make it uncertain whether the Commission would consider any significant levels of compensation to be a State aid compatible with the internal market.

59. In light of these circumstances there are substantial obstacles to the payment of aid to lignite plant operators. Our recommendations, to ensure that the German government complies with the law, and does not expose operators to the risk of orders for unlawful compensation to be repaid, are as follows:

- a. For the ongoing negotiations, the government should carefully assess the proposed compensation against the requirements of State aid law - including conducting detailed economic analysis, as appropriate.
- b. Any compensation paid should be formally notified to the European Commission, allowing the Commission to remove any uncertainty by reaching its own decision.

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<sup>34</sup> [https://europa.eu/rapid/press-release\\_IP-16-2923\\_en.htm](https://europa.eu/rapid/press-release_IP-16-2923_en.htm).

- c. To increase the chances of the compensation being approved by the European Commission, the compensation scheme should be designed to ensure that operators receive no more than the minimum required under German law (specifically, under Article 14 of the German Constitution).
- d. In designing the compensation scheme, the German government should bear in mind that coal phase-outs are being implemented in other countries (e.g. the UK and the Netherlands) without any compensation being paid. This will be taken into account by the European Commission when assessing whether the proposed compensation is justified in Germany as necessary, appropriate and proportionate to the objectives pursued.

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