



POLICY BRIEFING (11/2019)

Follow-up costs of lignite mining: Ensuring financing in line with the polluter pays principle

Swantje Fiedler and Isabel Schrems

The accelerated phase-out from coal and the tense economic situation for lignite-fired power plants make it clear that hedging the financial risks is more urgent than ever before. However, the "precautionary agreements" signed in Brandenburg and Saxony are not suitable for this purpose.

Instead, security deposits and improved corporate liability must ensure that the polluters also pay for the follow-up costs of lignite mining.

Summary of results

- The long-term costs of the reutilization of the lignite sites (i.e. follow-up-costs), as well as the risk of possible cost increases, are still unclear today.
- The gross profits of German lignite-fired power plants have fallen sharply this year, so that the lignite business is no longer profitable and the risk of insolvency is greater.
- The current model of provisions and special purpose vehicles is not sufficient to finance follow-up costs on a polluter pays basis. The precautionary agreements in Brandenburg and Saxony would have to be fundamentally revised in order to cover the risks.
- In order to secure the financing of follow-up costs, the responsible mining authorities must demand security deposits from the mining operators. In addition, the long-term liability of parent companies must be ensured in the event of insolvency.

1 Need for reform: Why must financing be better secured?

Who bears the follow-up costs (rehabilitation costs) of lignite mining? Long-term water remediation, mining damage, loss of biological diversity, health impacts and climate change are examples that society is already paying part of the costs today. By contrast, open-cast mine operators are expressly obliged by law to make the land they use available for use again. However, it is questionable whether the financing model of internal company reserves ensures that the costs are actually borne by those responsible. The risks of the previous provisioning practice are sufficiently known (FÖS 2018; FÖS/IASS 2016a; FÖS/IASS 2016b).

Nobody says how much it's going to cost

In recent years, the respective mining authorities in North Rhine-Westphalia, Brandenburg and Saxony have commissioned expert reports to review the provisions (KPMG 2016; RWTH Aachen 2017; Tudeshki 2017; Tudeshki 2018). It contains many figures and information on planned recultivations, but does not answer three questions:

1. How much will it cost to reuse the material in total?
2. What are the long-term costs, and what are the risks of cost increases?
3. How solid are the assets of the mining operators from which the costs are to be paid?

In 2018, LE-B's mining reserves for the Lausitz mining area (excluding the Cottbus-Nord opencast mine) amounted to around **EUR 1.38 billion** (Tudeshki 2018), while RWE's reserves totalled **EUR 2.53 billion** (RWE AG 2018). However, this does not reveal anything about the total amount expected. The only estimate published comes from the Brandenburg Ministry of Economics and Energy. It puts the recultivation costs for the Lausitz lignite mining area (but possibly only for the Welzow-Süd lignite mine) at around **3 billion euros** (Landtag Brandenburg 2017). An informed debate is still not possible on this basis.

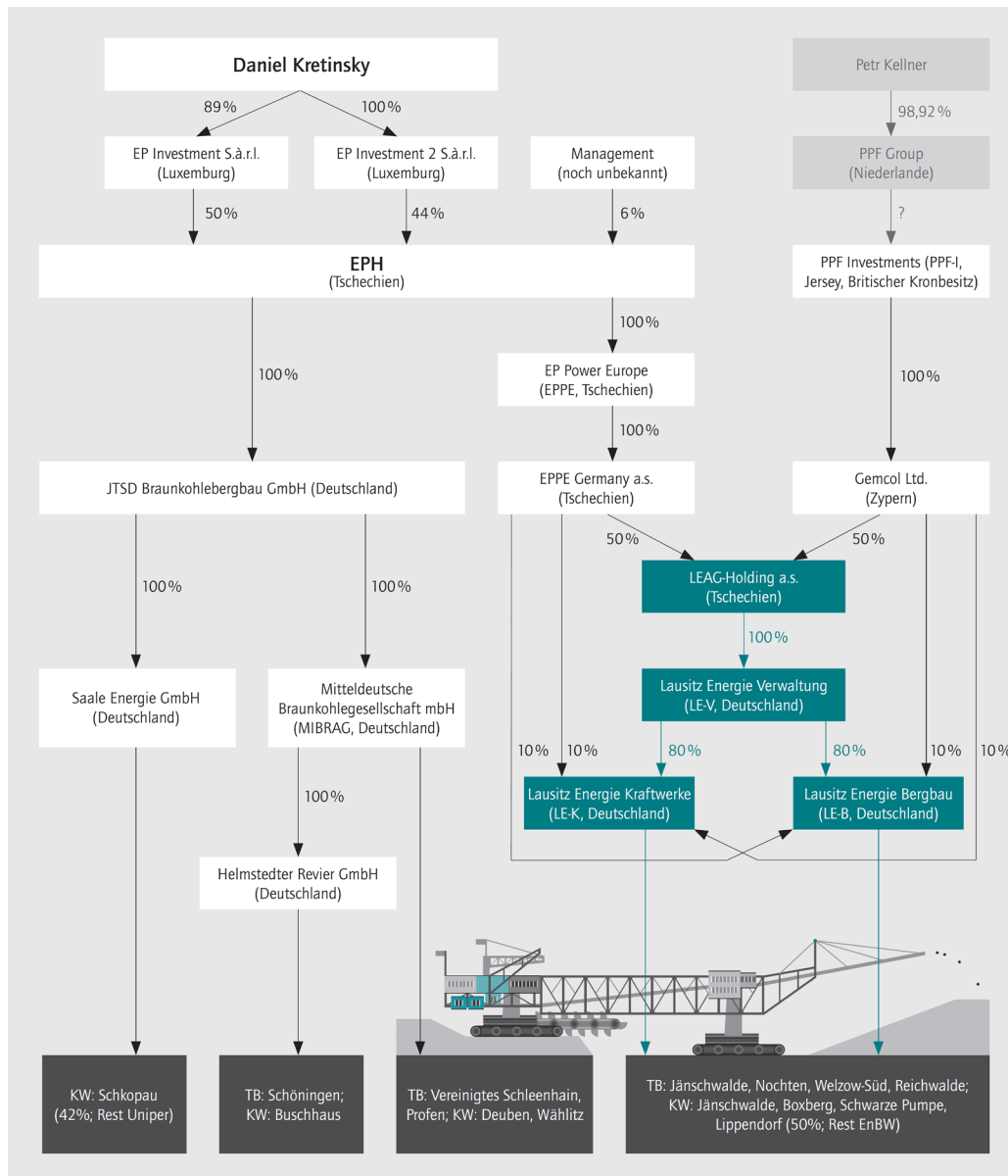
The greatest risk is the lack of Group liability

In the event of insolvency, the parent companies of the mining operators could, according to the law in force, evade responsibility for follow-up costs by **terminating control and profit and loss transfer agreements** on the one hand and by **restructuring under company law** on the other. In both cases, the state and thus the taxpayers

would ultimately have to bear the costs. Specifically, the existing risk can be seen in two cases:

1. In 2016, **RWE** restructured the company and succeeded in bundling the promising parts of the company (renewable energies, grids and sales) from RWE into the new subsidiary innogy, without issuing guarantees, letters of comfort, debt assumption letters etc. for RWE's inherited liabilities to innogy in return. The administration and profit transfer agreements between RWE and innogy were terminated in September 2016. As a result, innogy's profits no longer served to hedge RWE's liabilities and thus the follow-up costs of the lignite mine (FÖS 2018; Norddeutsche Landesbank 2016).
2. Lignite mining in Lausitz area was also restructured in 2016. Until September 2016, the entire lignite business in Lusatia was operated by the state-owned Swedish energy group Vattenfall. Due to the industry's poor profit expectations and the incompatibility of lignite-fired power generation with the Swedish government's climate protection targets, Vattenfall decided to sell the business (Vattenfall 2016). The opencast mines and power plants in the Lausitz region were taken over by the Czech energy group **Energetický a Průmyslový Holding (EPH)** and the Czech-British finance and investment company **PPF-Investments (PPF-I)**. As Figure 1 shows, both operate the Czech LEAG Holding through several subsidiaries, including those based on the Channel Island of Jersey and Cyprus. This in turn forms the umbrella brand of Lausitz Energie Verwaltung, based in Germany, which operates Lausitz Energie Bergbau AG and Lausitz Energie Kraftwerke AG (DIW 2017). The extent to which the parent companies EPH and PPF-I can be called upon to finance the liabilities in the event of possible insolvency of the subsidiaries is unclear (FÖS 2018). EPH manager Špringl reinforced the two-fold view of a future group liability in an interview with the business magazine Capital in December 2017, in which he explained that in his opinion EPH was not liable for the obligations of its Lausitz subsidiary LEAG (Capital 2017).

Figure 1 Corporate structure of the East German lignite industry



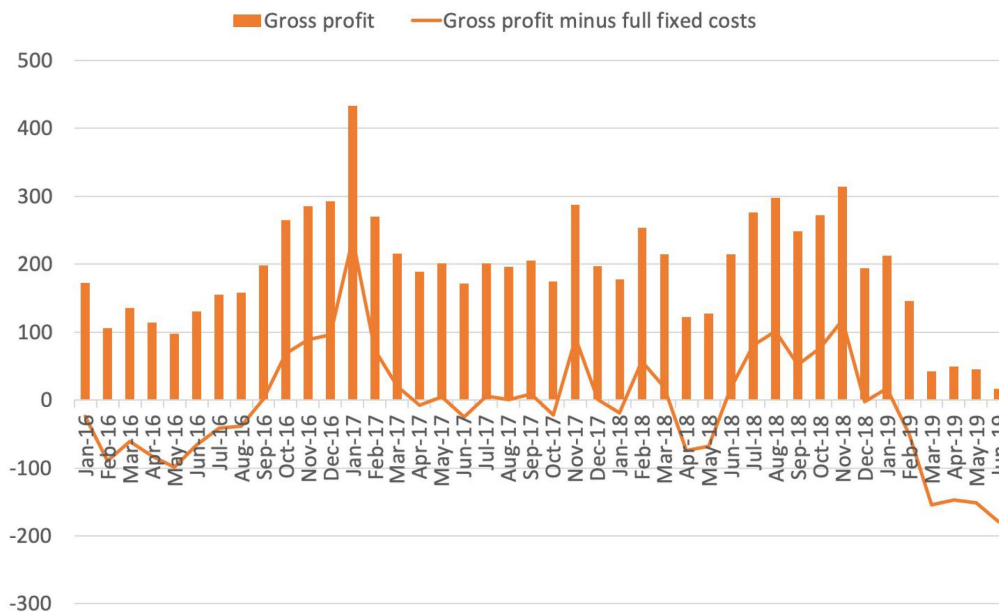
Source: DIW (2017)

The lignite business is in economic difficulties

The economic development of the lignite business shows that insolvency cannot be completely ruled out. For LEAG itself has only 14 million euros of share capital from which future obligations cannot be covered (Grüne Fraktion Brandenburg 2017). According to a Sandbag model (2019), the **gross profit of German lignite-fired power plants fell by 54% from EUR 1,190 million to EUR 513 million in the first half of 2019** (see Figure 2).

The gross profits of older power plant units (from before 1990) **even fell by 62%** from EUR 500 million to EUR 188 million. These low gross profits were also far from covering the fixed costs of the power plants, which led to losses of EUR 664 million in the first half of 2019. According to Sandbag (2019), the lignite industry will have to expect **further losses of EUR 1.8 billion** between 2020 and 2022.

Figure 2 Profitability of the German lignite business



Quelle: Sandbag (2019)

2 Need for reform: Why are the precautionary agreements in Brandenburg and Saxony not sufficient?

Due to growing public pressure, Lausitzer Energie Bergbau AG (LE-B) **signed precautionary agreements with both the Free State of Saxony (December 2018) and the State of Brandenburg (July 2019)**. The declared aim of these agreements is to provide financial security for the mining obligations to make the land usable and to provide aftercare.

The agreements stipulate the establishment of special purpose entities. These are to be endowed with a special-purpose fund, which initially consists of a **basic amount** and is to be expanded annually from the **"current cash flow"** (savings concept). After about ten years, no new funds will be added, but only income will be generated from the existing investment fund. The special assets are to be pledged to the respective federal states in order to prevent insolvency (Lausitz Energie Bergbau AG/Freistaat Sachsen 2018; Lausitz Energie Bergbau AG/Land Brandenburg 2019).

LE-B continues to finance its obligations under mining law primarily from its operating assets. The assets of the special-purpose entity are to be used when the last opencast mine has been completed and no more income can be generated from lignite-fired electricity generation.

In its current form, the agreements fail to fulfil its purpose:

- According to a short expert opinion of the lawyer Dr. Cornelia Ziehm (2019), the establishment of a special purpose entity and the saving of special assets from the "current cash flow" does not correspond to any of the types of implementation securities permitted by the legislator in §232 BGB (German Civil Code), §56 Abs.2 S.2 BbergG (Federal mining Act). **Unforeseen types of securities** may generally only be considered in exceptional cases and must meet strict requirements with regard to the immediate availability of the security or the creditworthiness of the guarantor. Purely contractual agreements, such as those concluded by means of the precautionary agreement, are not intended by this regulation (Ziehm 2019).
- The agreement **lacks provisions** for the event that Lausitz Energie Bergbau (LE-B) **fails to meet its financial obligations** or is unable to do so (e.g. in the event of insolvency). Significantly, the LE-B does not have any well-founded forecasts as to the extent to which future payment obligations will be met and profits will be generated beyond this (Ziehm 2019). The calculation of the amounts to be paid is based on financial surpluses up to 2042. **However, to which extent the fixed amounts can be achieved remains questionable given the current economic situation of lignite operations.** Within the agreement, it is assumed that the framework conditions for opencast mines and power plants will not change in the future. Planned closures within the framework of the energy transition, which will entail further declines in earnings, are not taken into account. In addition, the costs of retrofitting power plants to comply with EU emission limits (LCP BREF) are potentially underestimated.

Under these circumstances, the rehabilitation of the sites only appears to be financially secure if the conditions in the lignite business do not change. This is particularly contradictory when one considers that the precautionary agreement was signed due to the uncertain economic situation of the lignite business and LEAG's financial resources (BUND 2019; Linksfraktion Sachsen 2018).

- The **reinvestment of the funds for the "generation of income" is to be evaluated critically**. So far there is no clarity as to where exactly the money saved will go. There is thus a danger that the money will be invested risky or will even flow into EPH funds. If the hoped-for returns fail to materialise, the general public will again have to pay for the long-term costs (Linksfraktion Sachsen 2018).
- **Precautionary agreements remain very vague and intransparent** in some places and leave open questions about their concrete implementation. The savings concept is not publicly available and the amount of the annual contributions is not yet known. The basic amount agreed in Brandenburg for the Jänschwalde and Welzow-Süd open-cast mines will be 102.9 million euros. This figure was only published on 9 August 2019 due to public pressure. In total a special property of 770 millions euro is to be saved up to 2034 (Grüne Fraktion Brandenburg 2019). According to Bergs (2006), a large part of the costs for recultivation will only be incurred when the overburden dredging has reached the final stage.
- **Due to the lack of information on the assumed recultivation costs and periods, the extent to which the planned assets are sufficient cannot be verified. It is already clear that it does not cover the entire costs and is intended for a later date. It does not cover the threat of insolvency before 2034.**

3 How can the financing of follow-up costs be secured?

It is still urgently necessary to place the financing provisions in the lignite sector on a sound footing and to make them as insolvency-proof as possible. The following steps are urgently required:

More cost transparency and control

The most important information on follow-up costs **is still missing**: Expected costs must be mentioned and savings concepts must be made public. In particular, the long-term costs and possible eternity burdens must be investigated. The estimates and concepts must be adapted to

the requirements of climate protection and the accelerated phasing out of coal.

If the mining operators and mining offices do not become active themselves in this question, it is the explicit task of the state audit offices to obtain the necessary information as a control instrument for the public budgets.

Implementation securities in the event of insolvency

§ Section 56 BBergG (Federal mining Act) already offers mining authorities the possibility today of requiring a security to ensure that the recultivation obligations are met. In contrast to provisions or special purpose vehicles, security deposits can be protected against insolvency. They are expressly designed to protect against insolvency before a company gets into financial difficulties.

In contrast to open pit lignite mines, for example, in the case of gravel and gravel sand open pit mines with reference to § 56 BBergG (Federal Mining Act), security payments are levied by the state mining authorities as standard (e.g. open pit mines Biesen, Ruhlsdorf, Wollschow). Mandatory implementation securities are also already required, for example, when waste disposal facilities and wind energy plants are approved. Brandenburg has issued a circular stipulating that a security deposit is required for all waste disposal facilities. Security deposits for wind turbines are prescribed nationwide in the Building Act Book (BauGB) in the form of declarations of commitment for dismantling (§ 35 Paragraph 5 Sentence 2 BauGB).

Possible forms of security are, for example, the deposit of cash or securities, bank guarantees or insurance contracts (Tudeshki 2018). The state governments should require their mining authorities responsible for lignite mining to require the **mining operators to provide implementation securities** (even retrospectively). Since the collection of a security deposit has so far been at the discretion of the state mining authorities, the Federal Government could also make it binding by amending the BBergG (Federal Mining Act).

As an immediate measure, at least the sum of EUR 1.7 billion in cash which Vattenfall transferred to LEAG at the time of the sale would have to be converted into security deposits.

Convert possible compensation payments into security deposits

In the final report of the so-called "Coal Commission" it is considered to financially compensate lignite companies for the implementation of an accelerated coal phase-out. However, if compensation is paid, it **must be immediately**

converted into security deposits. The money must be secured without exception for the financing of follow-up costs.

Ensuring the liability of parent companies

The parent companies EPH/PPF must be requested to conclude an **administration and profit transfer agreement** with their subsidiaries LEAG and LE-B respectively. In order to counter the risks of corporate restructuring and the termination of control and profit and loss transfer agreements, **a long-term subsequent liability of parent companies** for the mining operators with regard to the costs of mine rehabilitation and aftercare should also be ensured. The first step would be for the federal government to pass a follow-up liability law for the lignite industry. The main objective of such a law would be for the parent companies to pay for their payment obligations in the event of the insolvency of the mining drivers. This also and especially applies when the mining operator as legal entity is extinguished or when the mining business is separated from the parent company.

Improve special purpose vehicles?

The existing precautionary agreements in Brandenburg and Saxony are so weak that cosmetic improvements are not sufficient. **In order to protect sufficiently high funds against insolvency, the special purpose vehicles would have to be changed comprehensively.** In principle, the following changes are possible, based on the points of criticism already mentioned:

- The total expected costs as well as the savings concept defined within the pension agreement and the planned financing periods must be **publicly available**. They must be designed in such a way that the entire recultivation costs can be covered with certainty. Each type of financial provision should also cover the recultivation costs during operation. This has not yet been provided for in the special purpose vehicles.
 - Instead of the saving of a special fund, **other securities** such as cash, securities, bank guarantees, securities on real estate or insurance contracts should be collected, which can guarantee the assumption of follow-up costs by the mining operators even in the event of insolvency or insufficient operating profits.
3. If this is not implemented, at least **safeguarding or control mechanisms** would have to be introduced. The Insurance Supervision Act (ISA), for example, also provides for the establishment of an internal special fund for security purposes. In this case, the management of the security assets is subject to BaFin Federal

Financial Supervisory Authority). BaFin may also order the increase of the security assets if this appears appropriate (Ziehm 2018). Similar monitoring could also be set up for the special purpose vehicle.

- The **liability** of the parent companies EPH/PPF would have to be guaranteed in the event of LEAG/LE-B insolvency or insufficient operating profits (see FÖS/IASS 2016a; FÖS/IASS 2016b). This is particularly important because the special fund of the special purpose entity has so far only been earmarked for the long-term follow-up costs after termination of the active opencast mining. However, there is still a risk of LEAG/LE-B becoming insolvent until then. The liability of the parent groups is also intended to cover the risk of an increase in follow-up costs.

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