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The “coal villain” of the European Union? Path dependence, profiteering and the role of the Energetický a průmyslový holding (EPH) company in the energy transition

Filip Černoč^{*}, Jan Osíčka, Sebastián Mariňák

Department of International Relations and European Studies, Faculty of Social Studies, Masaryk University, Joštova 10, 60200 Brno, Czech Republic

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ABSTRACT

Parallel to the ongoing energy transition, *Energetický a průmyslový holding* (EPH) has emerged as one of the leading energy companies in the EU. Since its expansion started in 2009, the company has acquired assets worth EUR 16.7 billion while entering eight European markets, establishing itself as a crucial EU natural gas stakeholder and essential coal mining company in Germany and Poland, collecting around 26 GW of installed electricity generation capacity, and becoming the second largest polluter in the EU ETS. Unlike other rising stars of the shifting socio-technical regime such as Orsted or Tesla, EPH swims against the current. Depending on the perspective, it acts like either a scavenger, buying out “dirty” coal assets from energy incumbents, or a profiteer, taking advantage of the recently introduced capacity mechanisms which give an afterlife to such assets, thereby extracting rents from transition policies. EPH thus simultaneously contributes to the transition and compromises the goal of decarbonization.

This paper offers a detailed analysis of EPH’s investment strategy. The resulting image is one of a company with Europe-wide aspirations but the structure and behaviour of a garage start-up—an image that does not fit the traditional perception of transition as a conflict between status quo and niche actors over the fate of the regime. EPH is interested not in the end-state of the regime change but in the change itself. We conclude by discussing what the emergence of such an actor could mean for current European energy transition policies.

1. Introduction

Decarbonization encompasses fundamental changes in existing socio-technical systems [1]. These changes are enacted through the interaction of multiple actors and resources [2]. Systematic attention is paid to actors facilitating the transition [3,4], delaying the process [5–8], or fulfilling some of the myriad other roles affecting the transition in a more nuanced or unclear way [9–12], all in the hope that a better understanding of such actors would help us to comprehend the mechanisms behind the ongoing shift from fossil fuel-based systems to low carbon ones and to guide this shift successfully.

Business actors (i.e., companies) are an inseparable part of this research effort. Depending on their historical position in the system, companies control fixed capital (power plants, heating plants, grids, etc.) and existing customer bases; manage strategic investments; develop and disseminate new ideas, technologies, and know how; and thus shape the development of the energy sector and facilitate its

evolution [13]. Traditionally, scholars have distinguished two main categories of (business) actors: status quo actors (incumbents) and challengers or disruptors (niche actors) [14–20].

Energetický a průmyslový holding (Energy and Industry Holding, EPH), which reached the top 10 of the largest European energy companies based on installed capacity [21] in just ten years, is difficult to pin down using the established categories. It exhibits traits typical for both status quo actors and challengers. It openly aspires to become a typical EU-wide vertically integrated company with a complex portfolio, including production, transportation, and supply of heat; import and transportation of natural gas; and even operation of nuclear power plants. All with the organizational structure of a garage start-up, built in a few years by a single individual with no energy expertise or notable financial resources.

In this article we trace the evolution of EPH and analyse its investment strategy. We show how EPH was able to exploit opportunities stemming from transition policies and how it has become

^{*} Corresponding author.

E-mail address: cernoch@mail.muni.cz (F. Černoč).

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simultaneously a child, facilitator and obstructor of the transition. We conclude by discussing what kind of actor EPH is, the roles it plays in the transition, and what that all means for transition policies in Europe. More generally, by introducing this unique case we enrich the theoretical debate on actors and roles in the transition process. Finally, there is a burning practical impact of the presented analysis as it raises some uncomfortable questions about Europe's decarbonization policies.

2. Theory and literature

The presented study illustrates how changes associated with the ongoing energy transition give rise to new types of actors who follow new strategies to seize new opportunities. In line with the currently mainstream theoretical approach to transitions – the Multi-Level Perspective – we understand energy transition as a destabilization and eventual transformation of an existing socio-technical regime resulting from combined pressures from niche and landscape factors [14,22–24]. Transitions of such complexity necessarily involve profound changes in the flows of material, wealth, and information, creating new opportunities for both existing and emerging market actors [25].

While the transition literature on this topic appears to be preoccupied mainly with emerging industries [26,27] or, more generally, the socio-technical practices that surround them [28], relatively less attention has been paid to opportunities associated with the politically highly sensitive process of landing the obsolescing industries safely [29–31]. Here, the literature has focused on the adaptation of fossil fuel producing regions or economies [32,33], repurposing of decommissioned infrastructure [34,35], and fossil fuels' contribution to decarbonization – most notably by providing flexibility or ensuring generation adequacy in power systems exposed to growth in renewable energy [36].

Naturally, engaging fossil fuels in the transition process is highly controversial. This is especially the case of capacity remuneration mechanisms (CRMs), which ensure system-wide generation adequacy by reimbursing operators of unprofitable dispatchable (i.e. fossil fuel-fired) power plants for keeping them online. CRMs are profoundly complex and their impact on energy landscapes reach well beyond fostering generation adequacy [37], which is why they have become one of the most divisive energy policy issues in many countries [38]. CRMs strongly affect electricity markets, for example, by interfering with overall welfare [39,40], smoothing out investment cycles [41,42], or reducing incentives for flexible generation [43]. Furthermore, CRMs can also have significant cross-border effects, since their domestic impact can be echoed in neighbouring countries if sufficient interconnection between them is in place [44]. Although CRMs vary significantly in design and application [36,37], which makes them notoriously difficult to pin down, for the purposes of this analysis we understand them as an opportunity for an economically viable afterlife for slowly but surely departing carbon-intensive power plants. Such perspective offers important insights into the business environment in which EPH operates and which is at present largely shaped by divestment from fossil fuels and the looming risk of stranded assets [45].

Existing research agrees that the majority of fossil fuel assets – in particular capital intensive hydrocarbons and coal power plants – are exposed to stranding risk [46]. Divesting from fossil fuels is therefore being established as a risk-averse, sound business strategy [47,48]. What is more, the ever-increasing politicization of climate change and the increasingly tangible political action against it have turned divestment into much more. It has become a symbol [49], a norm [50], a movement [51], and an international regime [52]. Depending on the specific institutional context through which corporate actors' understanding of their economic interests is filtered [53,54], the resulting pressures to quit fossil fuels vary in their nature and intensity, and corporate strategies also vary accordingly. Some actors have not changed their perspectives or behaviour [55,56], while others have succumbed to economic pressures or internalized the normative perspective on divestment and incorporated it into their corporate social responsibility

strategies [50].

This study zooms in on the grey zone between the risk of stranded assets and the investment opportunities created by CRMs and other policy measures which themselves are products of the ongoing energy transition. More specifically, it targets actors and agency in energy transition, an issue that has been extensively covered by multiple streams of literature, most notably the actor-centric economics/management research and the context-centric sociological literature (examples include [57,58]; for a detailed overview, see [59]). Interestingly, the existing research is concerned nearly exclusively with actors that either facilitate [60,61] or resist transition [62,63]. Actors who are financially interested not in the end-state but in the process of transition, of whom EPH is a most striking example, have largely been missing in the literature. Shedding light on the EPH business strategy and the so far neglected issue of seeking profit in obsolescing industries, this study contributes to the rapidly growing literature on investment strategies and energy policy design in times of transition.

3. Case study of EPH

In just a 10 years, EPH has acquired assets worth EUR 16.7 billion; successfully entered eight European markets, including highly saturated markets in the West; established itself as a crucial EU natural gas stakeholder; transformed into the second largest coal mining company in Germany; become the only foreign company with a hard coal mining licence in Poland; and collected around 26,000 MW of installed capacity in electricity production, including nuclear sources [64]. It also became the second largest polluter in the EU ETS system with 85 MtCO₂ emitted in 2018, surpassed only by RWE with 119 MtCO₂ [65]. That is an unexpected accomplishment for the company originating in what we usually consider a dependent market economy, since these economies are commonly exposed to investments and influence from more developed economies, not vice versa.

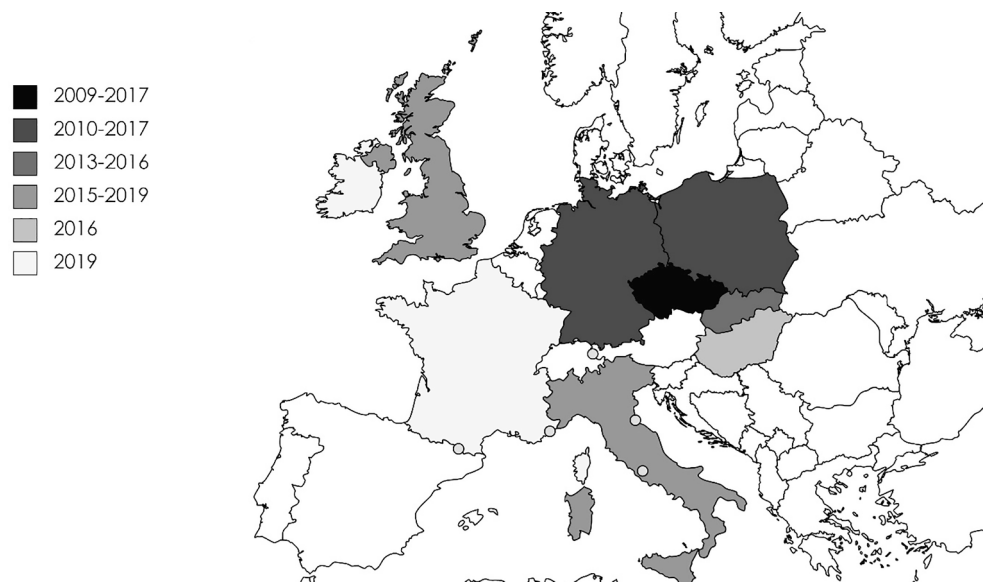
The following three chapters present a detailed analysis of how EPH achieved this. We will focus on the energy arm of the company, ignoring its activities in waste management, construction, and other areas.

In very simplified terms, two main periods may be distinguished regarding the company's investment activities. Up to 2015, EPH focused on building its infrastructural base, with a focus on regulated assets generating stable cash flow. Since then, its attention has shifted to acquiring electricity and heating plants to capture opportunities stemming from the current process of climate change driven decarbonization (see [Map 1](#) and [Table 1](#)).

A considerable challenge in studying EPH is the lack data. The company is not publicly listed and has a private owner, and by law it need only publish the most basic information. This constitutes a significant difference as compared to national utilities, who, due to their connection to the state, communicate with the public more intensively, whether through the publication of data, appearances by representatives in the media and at conferences, or justification of actions to the government.

Although EPH regularly publishes relatively detailed annual reports, its external representation ends there. The firm has a deep-rooted culture and, most likely, internal rules restricting public appearances by its representatives. CEO Křetínský has himself appeared several times in the media in the past, at times when he evidently considered it desirable to show the public image of EPH in a favourable light or to defend the company's interests. These interviews rarely went into greater depth, however, and in recent years even these media appearances have declined. The same also applies to other company representatives, with limited exceptions.

The authors repeatedly contacted the company to request an interview, though without success. This research is therefore based on publicly available sources – financial reports, economic analyses, media reports, and secondary literature analysing the energy sector in relevant countries.



Map 1. . . EPH's investment campaigns.

Additionally, since the presented research takes form of a case study, standard limitations of this approach apply. With limited publicly available information and no access to the company's representatives, we had to pay special attention to the substantiation and interpretation of our findings. We employed two stages of triangulation throughout the research process. In the first, "perspective triangulation" [66] stage, at least two authors were evaluating the source data separately before collectively building up the findings. During the second stage, which consisted of "within method triangulation" [67], we confronted our findings and especially their interpretation with the available texts and speeches produced by EPH representatives, effectively ensuring that we would not interpret the company's business strategy too far beyond what its own people have to say about it.

3.1. Establishment of EPH's financial and infrastructure base

EPH was founded in 2009 as an indirect subsidiary of J&T Finance Group, which earmarked to the new company all its Czech energy sources with total power capacity of about 252 MW: brown coal cogeneration plants of United Energy, Plzeňská energetika and Severočeská energetika; natural gas and electricity trading companies of Pražská Energetika and United Energy Trading; and wind park Pchery. Adding Pražská teplárenská and Elektrárny Opatovice heating and power companies to its portfolio in 2010, EPH became the largest Czech supplier of heat and second largest supplier of electricity [68,69].

At the same time, EPH started its expansion to the German and Polish energy markets. In Germany, it acquired the third largest German mining company Mibrag, which consisted of two brown coal mines (Profen and Vereinigten) and three brown coal power plants (Deuben, Wähllitz, and Mumsdorf), from the U.S. companies URS Corporation and NRG Energy. EPH cooperated on this EUR 404 million investment with Czech national utility ČEZ, whose participation was taken over by EPH in 2011. EPH's position on this market was strengthened in 2011 with the purchase of Saale Energie for EUR 141 million from U.S. NRG Energy, thereby securing 41.9% control of 400 MW brown coal plant Schkopau, and in 2013 with the acquisition of the Schöningen brown coal mine and Buschhaus power plant from E.ON [68,70–72]. EPH penetrated the Polish energy market with the acquisition of company PG Silesia and its KWK Silesia mine with around 500 million tons of hard coal. EPH thus became the only foreign company owning a coal mine and mining licence in Poland. [69].

In 2013 EPH also launched its intensive expansion to Slovakia by

purchasing major energy provider Slovak Gas Holding from E.ON and GDF SUEZ, thereby securing managerial control and 49% ownership over major Slovak energy provider SPP. This investment catapulted EPH into the realm of international gas trade since SPP controls Eustream, crucial infrastructure for transporting Russian gas to Europe. EPH's position on the Slovak market changed again in 2014 as a result of negotiations with the then Slovak government, through which EPH retained control over gas infrastructure under the SPP company (transport of gas via Eustream, distribution via SPP Distribúcia, and storage in the Czech Republic and Slovakia via NAFTA, POZAGAS, and SPP Storage) while trading activities were taken over by the government [73,74].

As illustrated above, it took EPH only 5 years to build a vertically integrated company of regional importance. Through aggressive investments in regulated assets with predictable and stable revenues, EPH laid the foundations for its daring European investment campaign in the years to come.

3.2. Monetization of the EU decarbonization process

In 2015 EPH launched an investment strategy based on a dispassionate, albeit highly risky calculation of opportunities resulting from the process of European energy transition. Realizing the growing instability of EU energy systems and acknowledging the unpreparedness of the national regulatory frameworks, EPH decided to go against the mainstream and speculate on the prolonged transition from fossil fuel sources to low-carbon technologies. Identifying the gap between ambitious renewable energy plans of western European countries and the actual capabilities of their existing energy infrastructure, EPH started to bid on coal power plants – outdated and unpopular, but still essential for stable supplies of electricity.

A brief explanation is needed here. Traditionally, utilities used to extract profit from a mix of generation, distribution and retailing activities across centralized grids, using a portfolio of conventional (coal, natural gas, hydro, nuclear) power plants. Remuneration in the sector was guided by so-called energy-only market principles, with reimbursements received for the produced electricity only [75,76]. This model is now contested by the growing shares of renewable energy sources in countries' energy mixes, which make conventional power sources economically obsolete [77,78]. Thus, decision-makers came up with new regulatory mechanisms not only to prevent their former national champions' conventional assets from becoming stranded but also

Table 1
EPH development 2009–2019.

Year	Acquisitions	Types of Assets	Evaluation
Up to 2009	United Energy, Plzeňská energetika, Severočeská teplárenská, Pražská energetika, United Energy Trading, Pchery wind park (CZ)	Brown coal cogeneration plants, heat distribution, electricity and natural gas trading, wind park	Expansion into the Czech energy sector. EPH begins series of strategic acquisitions in the Czech heating sector, which is heavily reliant on brown coal cogeneration plants and district heating networks.
2010	Pražská teplárenská, Elektrárna Opatovice (CZ)	Brown coal cogeneration plants, heat distribution	EPH becomes second largest electricity producer and first in heat production in the Czech Republic; expansion to the German and Polish coal sectors.
	50% of Míbrag with Profen and Vereinigten Schleenhain mine and Deuben, Wähilitz and Mumsdorf power plants (DE)	Brown coal mining company and its 3 cogeneration plants	
	PG Silesia with KWK Silesia mine (PL)	Hard coal mining company	
2011	Míbrag takeover (DE)		EPH becomes third largest mining company in Germany.
2012	Saale Energie with Schkopau power plant (DE)	Brown coal cogeneration plant	Strengthening its position on the German market.
2013	Slovak Gas Holding (SPP, Eustream; SK)	Major energy (predominantly gas) supplier in Slovakia	Expansion to the Slovak gas and electricity market, control over Eustream (major transporter of Russian gas to Europe), more assets in Germany.
	Stredoslovenská energetika (SK)	Gas and electricity supplier and producer of energy from natural gas power plant, 7 photovoltaic power plants and 3 small hydro power plants	
	Schöningen lignite mine (DE)	Lignite mine	
	Buschhaus power plant (DE)	Brown coal power plant	
2014	SPP Infrastructure (SK)	100% subsidiary of Slovak Gas Holding, which owns Eustream (Slovak gas transmission system operator)	Divestments/restructuring of gas assets on Slovak gas market.
2015	Eggborough Power Limited (UK)	Hard coal power plant	Expansion to UK electricity market (2000 MW) and Italian electricity market (4500 MW).
	EP Produzione company - Livorno Ferraris, Ostiglia, Tavazano, Mantanaso, Trapani, Scandale, Fiume Santo (IT)	Natural gas power plants, hard coal power plant (Fiume Santo)	
2016	33% of Slovenské elektrárne (SK)	31 hydro power plants, 2 nuclear power plants, 2 coal power and heating plants and 2 photovoltaic power plants	Strong expansion to Slovak electricity market with significant volume of RES and nuclear capacity acquired; fourth largest electricity producer and second largest mining company in Germany; expansion to Hungarian market – 3 cogeneration plants that meet approximately 60% of the heat demand in Budapest and generate 3% of Hungarian electricity.
	Jämschwalde, Welzow-Süd, Nochten, Reichwalde mines; Jämschwalde, Schwarze Pumpe, Boxberg, Lippendorf (1 block) power plants (DE)	Lignite mines and brown coal power plants	
	Lynemouth Power Limited (UK)	Coal-fired power station, which is being converted to full biomass electricity generation	
	Budapesti Erömü (HU)	Three gas-fired cogeneration power plants	
2017	Langage, South Humber Bank power plants (UK)	Natural gas power plants	More assets in Italy, UK, Germany. Plzeňská teplárenská is merger of Plzeňská energetika and Plzeňská teplárenská, which were both active in heat distribution and operated brown coal cogeneration power plants. EPH becomes the most important company in production of renewable energy from solid biomass in Italy.
	Biomasse Italia, Biomasse Crotona (IT)	Solid biomass power plants	
	Kraftwerk Mehrum, Inzenham gas storage (DE)	Coal-fired power plant	
	Plzeňská teplárenská (CZ)	Brown coal cogeneration plants, co-firing of coal and biomass	
2019	Fusine power plant (It)	Biomass power plant	More assets in UK (Northern Ireland), Italy, France, expansion to Ireland. EPH becomes third largest energy producer in France with total production capacity of 2263 MW.
	Ballylumford, Kilroot power plants (UK)	Natural gas power plants	
	Tynagh Energy Limited (IR)	Natural gas power plant	
	Multiple power plants from Uniper – now Gazel Energie (FR)	Portfolio of coal, gas and biomass-fuelled power plants along with a wind and solar farm.	

Note: The acquisition list and description of assets are simplified and reduced to maintain comprehensibility of the table, with the aim to provide a basic overview and understanding of the investment strategy and position of the company.

Source [64].

to address the stability and security of electricity supply for industries and households. For these reasons, so-called capacity remuneration mechanisms (CRMs) were introduced, remunerating powerplants (in terms of their capacity) needed to provide a proper level of generation adequacy [79–81]. EPH has enthusiastically taken aim at these power plants.

In 2016, EPH bought Vattenfall's lignite assets in Germany for a surprisingly low price of around EUR 29 million, with Vattenfall incurring a loss of almost EUR 2.3 billion. EPH thus acquired another four large German coal-fired powerplants (Jänschwalde, Schwarze Pumpe, Boxberg, Lippendorf) with combined capacity over 8000 MW and four brown coal mines (Jänschwalde, Welzow-Süd, Nochten and Reichwalde) in Saxony and Brandenburg, transferring these assets to the newly formed LEAG company [82]. With this acquisition, EPH became one of the four largest producers of electricity in the country, the second largest mining company, and the largest employer in the German coal producing regions [64]. Although all purchased power plants ranked in the top 20 of the most polluting sources in the EU ETS system, some nevertheless succeeded in participating in the German strategic reserve, a limited mechanism of capacity payments introduced in the country to provide stability and predictability of electricity supply [83]. These include, for example, the Buschhaus power plant and blocks E and F of the Jänschwalde power plant [84]. Investments in Germany continued also in 2017 with the purchase of the company Kraftwerk Mehrum and its 750 MW hard coal power plant [85].

The same investment pattern can be observed in the United Kingdom and Ireland. Here EPH acquired 2000 MW hard coal power plant Eggborough in 2014 (about 4% of UK's electricity consumption), also a participant in the local capacity payments scheme called the Supplemental Balancing Reserve. In 2016 Eggborough was able to secure capacity through auction for the next winter, under which conditions the plant would earn above-market rates for produced electricity as well as considerable fees for being available on stand-by when required and to cover start-up [86]. The expansion to the UK market continued with Lynemouth Power Limited and its 420 MW brown coal power plant of the same name, which EPH bought from German RWE with already existing plans to rebuild it into a biomass station (completed in 2018) and with an already concluded contract for difference subsidy scheme [87]. Northern Irish power plants Ballylumford and Kilroot, which also includes a battery storage system, and Irish plant Tynagh also succeeded in capacity auctions for guaranteed income. The latest investment by EPH in the UK was made in 2017 when the company acquired two gas power plants, Langage and South Humber Bank, for EUR 364 million from Centrica.

Italy is the third of EPH's key markets, again highlighting the company's strategy to capture value through capacity mechanisms. The company entered the market in 2015 when it bought multiple assets from E.ON: 4500 MW of installed capacity consisting of 3900 MW of modern combined cycle gas turbine (CCGT) sources, 600 MW from hard coal power plant Fiume Santo, and some minor renewable resources. EPH entered the Italian electricity market at just the right time – when E.ON's fossil-fuel assets were in the red. The company employed a watch-and-wait strategy and managed to receive a capacity contract for its new infrastructure. For example, EP Produzione have been awarded contracts for 1.3 GW of capacity in North Italy and 709 MW in Sicily [88]. EPH also invested in two biomass power plants in 2017 (Biomasse Italia and Biomasse Crotone, 73 MW each) and another in 2019 (the 7 MW Fusine power plant) [89,90].

In all these cases, a similar pattern can be observed. EPH targets sources essential for security of supply. These mainly include outdated and publicly ostracized coal power plants, which it buys from incumbent energy companies for a bargain, but also other flexible and predictable sources such as natural gas power plants. Moreover, once the potential of the old fossil-fuel power plants is exhausted, EPH is often able to rebuild these power plants using *in-situ* infrastructure. Such was the case of Eggborough, which was transformed into a modern 2500 MW gas-

fired power plant, and coal power plant Lynemouth, which was converted to a biomass plant with a contract for difference for renewable sources of electricity [91].

Just as some EPH coal-fired power plants rely heavily on public money, the future of the company's mines in some countries could be similar. For example, the Mibrag mines in Germany were acquired with an approximately EUR 1.7 billion reserve for later recultivation and restoration of damaged land. Multiple observers, foremost Greenpeace, are concerned about EPH's ability and willingness to save this money and use it once needed and about the potential additional resources needed from local governments [92]. Considering that as part of the German coal phase-out the federal government announced its readiness to pay EUR 1.75 billion in compensation for early termination of mining activities to Mibrag, these concerns are legitimate [93]. The cost of recultivation is estimated at EUR 1.8 billion, which basically means that it could be fully covered by taxpayer money, not the company's internal resources.

To provide a complete investment picture for the given period, EPH also strengthened its presence in Slovakia again in 2016 with the purchase of a 50% share in Slovak Power Holding from Enel Produzione for EUR 375 million, thereby also acquiring a 33% share in Slovenské elektrárne via this transaction. Further ownership changes are complicated by the fact that Slovenské elektrárne, which represents about 80% of Slovak electricity production, is in the process of the complicated and ever-prolonged construction of two reactors at the Mochovce nuclear plant [94,95]. In the same year, EPH entered the Hungarian market with the purchase of Budapesti Erőmű from EDF, thus taking control over three cogeneration gas-fired plants – Kelenföld, Újpest and Kispest [96]. In 2019, the company also entered the French market with the acquisition of a roughly 2300 MW combined portfolio from Uniper France consisting of two gas-fired power plants in Saint-Avold, two coal-fired power plants in Saint-Avold and Gardane, biomass station Provence 4, some solar and wind power plants, and other assets [97].

3.3. Newcomer with immense aspiration

Having summarized EPH's energy-related investments, we may now turn our attention to the company itself, i.e. its ambitions and vision, the nature of its business, and its *modus operandi*.

The picture resulting from the previous chapters clearly indicates that EPH has ambitions of becoming an energy incumbent. This ambition is emphasized even by the company itself. In 2012, CEO of EPH Daniel Křetínský summarized his vision for the company as follows:

We aim to become a typical integrated company with a good reputation among customers, with a reasonable share of regulated assets, and regularly earning at least EUR 1 billion EBITDA¹. Then we could be compared to the top two or three largest utilities from large European countries, such as EnBW in Germany... [98].

Three years later, Křetínský raised the stakes: *"If our vision succeeds, in one or two years EPH will be the fourth or even third largest electricity producer in Europe"* [99].

The company's current reality seems to live up to this vision. EPH controls companies in energy-related mechanical engineering, waste management, e-commerce, media, wholesale commerce, energy and heating, gas transit and storage, transport and production of transport vehicles, real estate, and, as one of the few investments constantly in loss, Czech football club Sparta Praha. Focusing on the energy sector, EPH controls key assets in the production, transmission and distribution of electricity and heat. It owns multiple hard and black coal mines and power plants as well as heating plants in the Czech Republic, Slovakia, Poland, Hungary, Germany, Italy, the UK, and Ireland. It transports

¹ EBITDA – a company's earnings before interest expenses, taxes, depreciation and amortization; a commonly used indicator of company's operating profitability (comment added by authors).

natural gas from Russia via Eustream, operator of the large-scale high-pressure gas transmission system in Slovakia. It is also highly plausible that the company will operate the nearly finished Mochovce nuclear power plant in Slovakia. Finally, in all aforementioned countries, EPH represents an essential part of the energy system, providing services critical for its functioning – a poignant summary of the company’s position. In terms of its ambitions and assets, there is a very little to distinguish EPH from status quo utilities such as RWE or E.ON.

At the same time, however, its shareholder structure and financing resemble that of a start-up company. In comparison with traditional utilities, listed on stock markets and with diverse portfolios of stakeholders, very often including states themselves, EPH is controlled by a single man, Daniel Křetínský, with 94% ownership of the company. As stated by a company insider, “EPH still resembles a family company. Everything is being decided by Křetínský and a narrow group of ten to fifteen managers” [100]. According to all available sources, the company will stand or fall with this individual [101].

Like EPH’s shareholding structure, its financing resembles that of a start-up. Jozef Kotrba, chairman of Deloitte, said about Daniel Křetínský: “...he buys cheap with external finance, that’s the nature of his game” [102]. Furthermore, EPH is known in the Czech Republic for frequently issuing bonds to finance its growth strategy [103–105]. At the end of 2016, after acquiring Vattenfall’s lignite assets in Germany, EPH’s equity was EUR 3.1 billion with long-term loans amounting to EUR 5.4 billion [106]. EPH’s external finances are usually backed by Kooperativa finance group for a simple reason. As Jiří Zatloukal, expert in finance and mergers and acquisitions, puts it: “If Kooperativa ceased to insure EPH, which is the sixth largest electricity producer in the European Union and produces a lot of coal, due to responsible financing, it would lose its largest client and send much smaller dividends to Austrian shareholders” [107].

Such a strategy for implementing external funding is also possible because EPH is not a former national champion, which is another very important determinant of EPH’s modus operandi. EPH’s CFO Pavel Horský argues: “It is the flexibility and ‘non-ideological’ nature of decision-making on acquisitions that was and is absolutely essential and distinguishes us from state or semi-state companies” [108]. Traditional power utilities, wherein the state or municipalities have so-called golden shares, view their assets more as part of the whole economy. Thus, the decision-making process in incumbent companies is slower and rather

complex as the vested interests of institutional shareholders must be considered. Křetínský himself indirectly emphasized this important characteristic which distinguishes EPH from traditional utilities when asked about the possibility of EPH participating in building new nuclear blocks in the Czech Republic: “We have never thought about that. In today’s climate construction of new power plants is rather a public service than a promising investment project... large corporations invest mainly from a feeling of responsibility and public interest” [105]. This statement very much summarizes the huge gap between EPH and traditional utility thinking, with the former rejecting the embeddedness of the later in the existing system and its rules.

We finish the analytical part of the text with a brief reminder of how EPH’s assets are structured. First, most of the company’s assets continue to be represented by carbon-intensive sources, mainly in Germany, UK, Italy, and France (see Figs. 1 and 3). The share of renewables is growing, but only in the last few years and rather slowly (see Figs. 2 and 3).

Second, as regards renewables the company purposefully gravitates towards predictable and non-intermittent sources such as hydro and biomass (see Fig. 3). Explaining the reasoning behind this preference, EPH’s Director for Strategy Jiří Feist commented, “Countries report tens of thousands of installed megawatts of wind and solar power; however, this is not capacity for base load consumption. When there is no wind or sun, nothing is produced, but we want supplies at all times” [109].

Third, when EPH does own intermittent wind or solar capacity, it is either because of very favourable subsidy schemes in the given country or, more typically, because these sources were part of a larger deal, as was the case, for example, in the acquisition of Slovenské elektrárne’s massive hydro capacities (see Fig. 1).Map 1

4. Discussion and conclusion

EPH is unique. It has emerged from the ongoing energy transition but unlike many such actors it engages with businesses and follows strategies that are typical for incumbent companies. In a sense, EPH can be viewed as an “emerging incumbent”. It appears to be betting on the transition proceeding less smoothly and taking longer than envisaged by policymakers and possibly also many fellow energy companies. Its strategy targets primarily facilities which already are or can be expected to be politically relevant during the transition process. These include, typically, dispatchable sources that are subject to some form of state aid

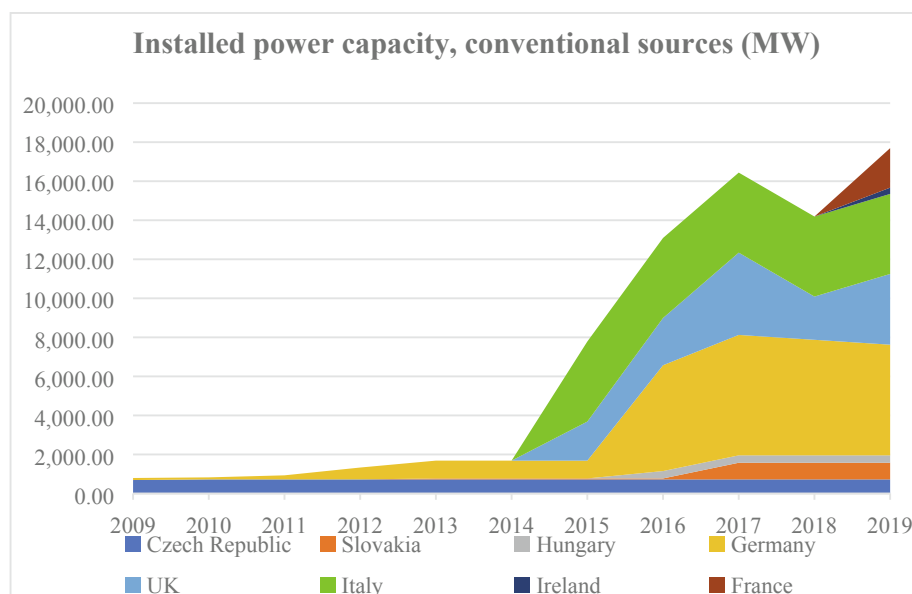


Fig. 1. Installed power capacity, conventional sources (MW). Source: [64]. Note: By “conventional” sources we do understand coal, natural gas, nuclear and large hydro.

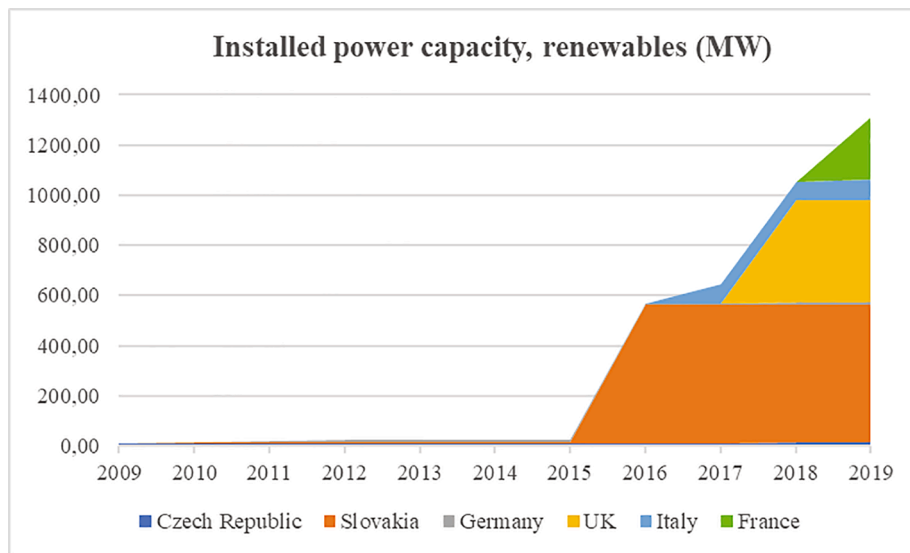


Fig. 2. Installed power capacity, renewables (MW). Source: [64]. Note: German and Czech capacities present but negligible.

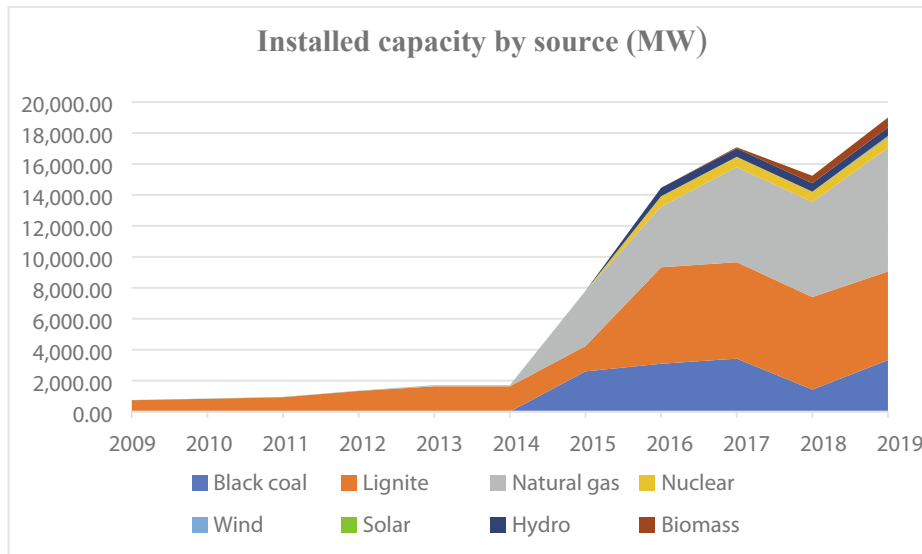


Fig. 3. Installed capacity by source (MW). Source: [64]. Note: Solar and wind present but negligible.

(e.g., capacity mechanisms) and that employ a considerable number of people. Such assets can be bought cheaply because their previous owners and operators perceive stranding risks differently, need finances elsewhere, or follow decarbonization norms and narratives [55,110,111]. By acquiring them, EPH gains not only the value they continue to represent and generate but also the value that stems from their role in grid balancing and providing local employment or from EPH’s ability to avoid liability for land recultivation costs [112].

This begs the question, what kind of actor is EPH? Following the terminology of the Multi-Level Perspective, EPH combines both status quo and niche characteristics [14,19]. Fossil fuel assets acquired by the company, primarily coal power plants, used to be pillars of the traditional utility portfolios but are not anymore. Now, the same utilities are rushing to get rid of them [47,48]. EPH participates in the innovative capacity remuneration mechanisms, but these very mechanisms often cement the practice of coal combustion and delay the shift from high to low carbon technologies. Looking beyond the binary nature of these categories, we argue that rather than a traditional energy utility interested in turning a profit by delivering energy, EPH should be viewed as

an investment group interested in any kind of profit, including rent extraction. EPH does not seem to be interested in defending the status quo, as many traditional utilities have long been, nor in questioning it, as niche actors are. It is not interested in any one end-state of the transition process. Rather, it is the process itself that matters for EPH as the regime reconfiguration brings along substantial rent-seeking opportunities.

So what role does EPH play in the transition? We offer two perspectives in answer to this question. The first sees the company as a “transition scavenger”. Insensitive to decarbonization norms, the company’s strategy allows traditional utilities to get rid of their “dirty” assets while enabling governments to claim they have ensured a reliable energy supply. What is more, this reliability comes at relatively low costs since the prolonged operation of these assets limits the need for new generation and back-up capacity. The other perspective sees EPH as a “transition rent-seeker” [113] or even a “profiteer” [114]. From this perspective, the company takes advantage of governments’ concern over the (non-external) costs of security of energy supply. EPH’s ability to acquire the obsolescing carbon intensive assets and shield off or socialize some of the financial and non-financial costs associated with owning and

operating them enabled it to unlock profits that would be unthinkable for companies that show a more common shareholder structure or that are more concerned with corporate social responsibility. Consequently, EPH's carbon-intensive assets will remain profitable longer and their eventual decommissioning will be more costly, effectively allowing the company to at least partially avoid the stranded asset risk [47,48]. In addition, the availability of profitable back-up capacity which the company brings to the market may compromise the development of cleaner alternatives and thus also the general goal of decarbonization.

Finally, what does the rise of EPH mean for transition policies and the transition itself? Again, depending on how we look at the presented data, it may simply indicate that CRM policies succeeded at attracting investment in generation and back-up capacity. A more nuanced and perhaps more critical view would see it as an indication of policy failure. First, the simple fact that buying out obsolescing industries can yield such financial success indicates state aid leakage and a significant rent-seeking issue [113]. Second, the story of EPH may illustrate the problem of real-world actors behaving differently than model actors who follow a set of pre-established rules by which the models are defined and who are typically used for policy planning. As pointed out by Li, the existing models "typically assume that price setting policies will translate directly into economically rational, 'optimal' choices across a wide range of diverse actors." [115]. Similarly, real-world decision-making, in contrast to models, produces "poorly coordinated, not enforced, or directly opposed policies" [115]. Finally, the rise of EPH can be seen as a sign of "regime resistance" [63]. It may be that EPH has simply taken advantage of incumbents' actions aimed at influencing transition pathways. What is more, in several countries EPH is already in a position to exert similar influence over decision-making should the circumstances – such as security of supply or employment concerns – prove favourable.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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