

ČEZ

A briefing for investors, insurers and banks

The briefing gives an overview of utilities' power mix and existing coal plant fleet; the financial, policy and reputation risks facing these power assets; the pathways for how the utility might re-align its coal plant fleet to the UN Paris Climate Agreement as well as the actions already being taken by investors, insurers and banks.

This briefing paper presents analysis and recommendations to assist investors, insurers and banks in achieving a coal phase-out from ČEZ.



ČEZ at a Glance:

- ČEZ has a high share of coal power generation (46%) which might negatively influence its access to finance due to various bank and investor environmental policies.
- ČEZ's current share of renewable energy is lower than % share of the Czech Republic and the EU as a whole and its investments in renewable energy are significantly lower than its investments in coal.
- The company is still planning to extend the operation of its Bílina lignite mine and is planning to build a new lignite CHP at its Kolín one.
- Its newest lignite unit at Ledvice, is scheduled to operate for 40 years, and the recently retrofitted coal plants Prunerov and Tusimice for 25 years.
- ČEZ's aim for climate neutrality by 2050 lacks any details or a pathway. The company's business model is focused on maximum exploitation of its coal assets, whilst presenting itself as a progressively renewables-based company.

Investors, insurers and banks should require ČEZ to:

- Commit to align its business model with the Paris Climate Agreement and, more concretely, to adopt a time-bound climate science-based target built on a forward-looking climate-scenario analysis.
- Put an immediate end to capital expenditure for the extension of mining, new coal plants and the retrofitting of existing coal plants that would lead to life-extensions. This would include dropping the new Melnik plant, and the immediate cessation of significant upgrade work and lifetime extensions at existing plants, as well as abandoning the plan to prolong mining in the Bílina lignite open-pit mine.
- Publish a clearly articulated roadmap for the gradual closure (not sale)
 of existing coal plants, ending at the latest in 2030 or earlier, and that
 incorporates a just transition plan for affected communities and
 workers. Investors and banks should encourage ČEZ not to sell its coal
 plants, but rather take ownership of them.
- Join and report according to the TCFD guidelines.
- Investors, insurers and banks should also adopt 'no coal policies' along the lines of the 'principles and approaches for impactful public coal policies' that were developed by the Europe Beyond Coal.



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1. Introduction

In the UN Paris Climate Agreement, 195 countries committed to curb the current emissions trajectory in accordance with climate science. This commitment translated into an objective to 'hold the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C,' and 'make finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development'.

The implications of the Paris Agreement for coal and renewable power are clear. Investors have recently acknowledged climate science research that supports the need to phase out coal by 2030 within member countries of the Organisation for Economic Co-operation and Development (OECD) and the European Union; by 2040, in China; and by 2050, in the rest of the world. More recent analysis by the International Energy Agency (IEA) 'beyond 2°C scenario' indicates that non-OECD countries should phase out production from coal power even earlier, by 2040. Investment in renewable power has to increase drastically.

There is a growing consensus amongst leading financial institutions globally that the world is moving towards a low carbon economy, and that as a result, coal power assets will be stranded, and constitute growing financial and reputational risks.

The recent Intergovernmental Panel on Climate Change (IPCC) report reminded us that there is no time to waste if we want to stop runaway climate change and that significant efforts are required if we are serious about limiting global warming to 1.5°. According to the report, the primary energy from coal must be reduced by 61-78 % globally in 2030 (% rel to 2010) globally in the scenarios with limited or no overshoot.



2. Power mix and coal plant fleet

ČEZ's strategic plans

ČEZ is currently undergoing a strategy review. As a result, it may decide to sell its coal and nuclear assets. ČEZ presented an initial plan on 1 February 2018, proposing to sell the Czech government the "Tradition Generation" business, of which the government already owns 70%. ČEZ's CEO Daniel Benes explained on 23 March 2018: "The company was looking for solutions that would benefit all shareholders. We can, for example, internally separate assets to address investors who want to invest in a modern, innovative energy firm but not in coal-fired plants. And alongside this, it can bring some advantages to the state because the other part of ČEZ can fulfil the state energy plan, meaning nuclear power units."

The discussions about splitting ČEZ have however not progressed much. Currently, the Czech government is insistent on building nuclear, and looking at ways to push the country (and ČEZ) into building new nuclear plants. A new nuclear plant could be in operation at the earliest in 2035.¹

ČEZ's power mix and coal plant fleet

Almost half of ČEZ's generation comes from coal (38% from lignite, 8% from hard coal) and ČEZ is investing still further.

Table 1: ČEZ power mix and capital expenditure plans (from ČEZ investor report²)

2017	Nuclear	Lignite	Hard coal	Renewables	Other
Generating capacity (GW)	4.3	5.5	1,6	1.7	2.0
Generation (in TWh, % of total ČEZ)	28 (45%)	25 (38%)	4 (8%)	4 (6%)	2 (3%)
Capital expenditure plans 2018 to 2022	61 billion CZ	ZK (+ 15b CZK fo	4 billion CZK		

https://www.reuters.com/article/us-czech-babis-cez/czech-pm-calls-for-cez-nuclear-plant-expansion-decision-this-year-idUSKBN1KM5CQ

Taken from slide 9 https://www.ČEZ.cz/edee/content/file/investors/2018-04-equity-investors.pdf



ČEZ continues to invest in existing coal: ČEZ has a 161 billion CZK investment plan for 2018-2022. Of this, 61 billion CZK (€2.4 billion) is for the traditional generating fleet, much of it likely to improve existing coal assets to keep them operating into the mid-term. A further 15 billion CZK is ear-marked for lignite mining.

ČEZ is also investing in <u>new</u> coal: ČEZ is looking to build a new coal heating plant at Melnik. Securing permissions is underway, and the investment cost is included in the same 2018-2022 investment plan. The new plant would enter into operation in 2024.

ČEZ is expanding lignite mining. ČEZ is currently seeking a permit to expand the Bilina coal mine in Northern Bohemia. If it is successful, up to 150 million tonnes of coal will be extracted in 2019-2035 on the territory of 39 km2.3

ČEZ has sold a coal plant, rather than choosing to close it. In 2017, ČEZ sold its Tisova lignite power plant to Sokolovská uhelná.

ČEZ is not investing significantly in renewables: Of the 161 billion CZK investment planned, only 4 billion is in clean energy, and almost none of that is for the Czech Republic itself (most is for French and Polish wind farms). As already stated, its existing renewables generation portfolio is very small, with just 6% of electricity generation coming from renewables in 2017. This is well below both the EU as well as Czech Republic's averages (13%).

ČEZ has announced a retirement date for only 15% (1 060MW) of its coal capacity. ČEZ has said it will close the following plants (leaving around 85% of its coal capacity with no concrete plan for closure):

- 440MW: Prunerov I (K3-K6) closure in 2020
- 220MW: Ledvice II (B2, B3; K2, K3) after the new 660MW block is fully operational
- 400MW: Elektrárna Dětmarovice (K1-K2) 2020

Additionally, by 2024 the current capacity of Melnik II and III is meant to be replaced by a new lignite unit and smaller units for gas and for waste.

In its latest (September 2018) presentation for investors⁴ ČEZ suggested that new or recently refurbished Ledvice power plants will operate for another 40 years, and that Prunerov and Tusimice for 25 respectively. This indicates that ČEZ is a long time off from closing many of these lignite plants.

In 2015, ČEZ made a promise to completely decarbonise by 2050⁵. However, ČEZ hasn't yet turned this into an operational plan to phase-out coal. It has made statements according to which some old coal units may close, but has so far made no concrete commitment.

³ http://oenergetice.cz/teplarenstvi/severoceske-doly-chystaji-dokumentaci-k-rozsireni-tezby-na-dole-bilina/

⁴ https://www.ČEZ.cz/edee/content/file/investori/2018-09-investment-story.pdf
⁵ https://www.ČEZ.cz/en/ČEZ-group/media/press-releases/5320.html



Table 2: ČEZ coal plant fleet (Source: European Beyond Coal Plant Database⁶)

Plant name	Country	Capacity (MW)	Fuel	Age*	2017 CO2 emissions (EU ETS)	Retirement date
Ledvice	Czech Republic	990	Lignite	49	2 551 876	Imminent for 220MW out of 990MW.
Detmarovi ce	Czech Republic	800	Hard coal	42	1 568 742	2020 date for 400MW out of 800MW.
Melnik II/III	Czech Republic	720	Lignite	47	2 511 886	Probably in 2024
Prunerov	Czech Republic	1190	Lignite	50	4 954 321	Jun-2020 for 220MW out of 1190MW.
Tusimice	Czech Republic	800 Lignite 4.		44	4 252 928	Yet to announce
Pocerady	Czech Republic	1 000	Lignite	47	6 241 411	Yet to announce
Porici II**	Czech Republic	165	Lignite 61		604 102	Yet to announce
Vitkovice**	Czech Republic	79	Hard coal	48	-	Convert to gas in 2018 ⁷
Hodonin**	Czech Republic	107	Lignite	61	73 330	Yet to announce
Melnik I**	Czech Republic	240	Lignite	58	1 628 608	Yet to announce
Trmice**	Czech Republic	89	Lignite	44	486 467	Yet to announce
Chorzow 2	Poland	226	Hard coal	15	1 354 606	Yet to announce

Explore the website here: https://beyond-coal.eu/data/
 https://ostrava-zpravy.aspx?c=A180308_387917_ostrava-zpravy_joq



Skawina	Poland	440	Hard coal	57	1 454 765	Yet to announce
TOTAL		6 846			27 683 042	

^{*} Age of the oldest unit; some units are younger; ** heating plants.

Here are some insights into ČEZ's coal fleet (see table 2):

- Of the 14 operational coal plants, 12 are in the Czech Republic; 2 are in Poland.
- These total 7.1GW of electrical capacity. Of the 7.1GW, 4.9GW is over 40 years old (40 years is the typical lifetime of a coal plant). Of the plants over 40 years old, only Tusimice (800MW) and Prunéřov have been refurbished, extending their lives past the typical 40-year lifetime.
- Roughly two-thirds are powered by the dirtiest fuel, lignite; the rest are powered by hard coal.
- In 2017, ČEZ's coal portfolio emitted 27.7 million tonnes of CO2 from burning coal. In addition, about another 1 million tonnes was emitted by burning biomass, which is not included in the EU's ETS accounting of CO2.
- Toxic pollutants from burning coal such as sulphur oxides (SOx), nitrogen oxides (NOx) and particulate matter (PM) have detrimental effects on public health. Modelling research for 2016 pollution data has shown, for instance, that their coal plants that have caused an estimated 661 premature deaths in 2016 (see table 3), and is part of the top ten most 'toxic' EU coal companies.⁸

Table 3: Estimations for ČEZ's coal power plants health impacts (modelled for 2016; Source: Last Gast report*)

Plant name	Country	Capacity (MW)	Premature deaths (modelled, 2016 emissions)	Health cost, mEUR, median (modelled, 2016 emissions)
Ledvice	Czech Republic	990	29	44
Detmarovice	Czech Republic	800	31	46
Melnik II/III	Czech Republic	720	81	124
Prunerov	Czech Republic	1 190	130	198
Tusimice	Czech Republic	800	68	104

⁸ In 2016, ČEZ still owned the Tisova coal power plant, which it has since sold. https://www.cez.cz/en/investors/inside-information/1724.html

⁹ Last Gasp, 2018. https://beyond-coal.eu/last-gasp/



Pocerady	Czech Republic	1 000	148	225
Porici II	Porici II Czech Republic		18	28
Vitkovice	Czech Republic	79	7	11
Hodonin	Hodonin Czech Republic		6	9
Melnik I	Melnik I Czech Republic		49	75
Trmice	Czech Republic	89	41	63
Chorzow 2	Poland	226	18	28
Skawina Poland		440	35	52
TOTAL			661	1007



3. Policy, financial and legal risks

The risk taxonomy

The industry-led Financial Stability Board (FSB) Task Force on Climate-related Financial Disclosures (TCFD) has forged unprecedented convergence across industry and G20 governments on climate-related financial risks. The coal power sector is particularly sensitive to risk that arises from the transition to a low-carbon economy – which is defined by the FSB TCFD in terms of policy changes, legal challenges, technology shifts, market developments and reputation.

The paragraphs below highlight how ČEZ's coal fleet is subject to such risks. 10

Rising carbon prices

Lignite plant profitability is very exposed to carbon price. Prices have quadrupled from about €5/tonne in May 2017 to about €20/tonne in October 2018. Based on ČEZ's CO2 emissions of 29 million tonnes in 2017, this will have quadrupled ČEZ's annual carbon costs from €145m to €58om.

From 2021, free carbon permit allocation to ČEZ's lignite plants will fall substantially, so there will be no protection against cost increases (as there has been previously).

It is likely that less than half of these costs could be passed through into the higher electricity price. ČEZ's lignite carbon intensity is around 1 000g CO2/kWh, and the Czech electricity market is tightly linked to Germany's electricity market, which has marginal carbon of around half this. The extent of pass-through of these €580m costs through the electricity price will also fall over time: as the carbon intensity of German electricity reduces, so does the ability to pass-through carbon price into the electricity price.

ČEZ says that "an increase in CO2 price has a positive impact on ČEZ profitability"¹¹, because its nuclear production will gain from a higher power price, offsetting losses at the lignite plants. Hiding lignite's losses hinders ČEZ's business model. Every lignite plant should have transparency so that investors know decisions are being optimised. In the event of unexpected outages at its nuclear plant, lost revenue there, combined with losses on the lignite plant may have a catastrophic financial impact on ČEZ.

What is more, CO2 prices could rise even further. A report, *Carbon Countdown*, released on 21 August 2018 by Carbon Tracker, forecasts that the CO2 price will rise to €25 by year-end, and €40 by 2020.

¹⁰ For more general information see: WWF (2017), Climate guide to asset owners. WWF (2017), Asset owner guide on coal and renewable electric power utilities. WWF (2018), WWF asset owner guide on coal and renewable electric power utilities.

¹¹ Slide 11 https://www.ČEZ.cz/edee/content/file/investori/2018-05-investment-story.pdf



National coal phase-out commitments constitute policy risk

Pressure is growing on governments to meet their commitments on climate change and air pollution. A growing number of national governments, sub-national actors and businesses, in Europe and internationally, have committed to phase-out coal. The coal phase-out momentum is broader than Europe, as further underscored by the Powering Past Coal Alliance. The alliance was launched in November 2017 and currently counts 26 national governments, 8 subnational governments and 24 private partners — each recognising and working towards a coal phase-out 'no later than by 2030 in the OECD and EU28, and no later than by 2050 in the rest of the world'. '2' Within Europe, the discussions on national coal phase out have now also reached with Slovakia and Hungary Eastern Europe.

For the Czech Republic to phase out coal is certainly possible: The Czech Republic is one of the most oversupplied countries in Europe for electricity generation. An independent technical report this year by Energy Nautics showed how a 2030 coal power phase-out would be technically possible without sacrificing security of supply or grid stability¹³.

Table 4: Overview of coal phase-out plans by European governments (Source: Europe Beyond Coal Campaign)

2021	2025	2029/30	Under discussion
France	UK	Finland	Germany
	Italy	Netherlands	Spain
	Austria	Portugal	Slovakia
	Ireland	Denmark	Hungary

EU air pollution standards

In April 2017, European Union member states agreed to a Best Available Techniques (BAT) Reference Document (BREF) that imposes revised pollution controls on large combustion plants – including power plants larger than 50MW. The underlying goal of these pollution controls is to improve air quality by cutting emissions of toxic pollutants.

EU member states must incorporate the new, stricter pollution rules into their permit criteria for new and existing power plants, with full implementation no later than 2021. The installation time of the relevant technologies is up to 45 months. Electric power utilities will therefore need to assess immediately if it makes financial and strategic sense to upgrade coal power plants to comply with BREF.

¹² UK Government (2017),

¹³ https://frankbold.org/sites/default/files/publikace/czech_grid_without_coal_by_2030_fin_0.pdf



DNV-GL has analysed the impact of BREF on the EU coal fleet. It finds that 82% of operational coal plants in 2021 would not comply with pollutant controls for SOx, NOx and PM. The share of non-compliant lignite plants (89%) would be significantly higher than the share of hard coal plants (78%). The total capital expenditure required to make these coal plants compliant with BREF would amount to €14.6 billion.¹⁴

Possible derogations for large coal power plants in the Czech Republic are subject to public and political debate in the Parliament, with some very active voices calling for zero exceptions. ¹⁵

¹⁴ https://europeanclimate.org/wp-content/uploads/2017/06/16-1213-rev2-DNV-GL-report-ECF-BREF-LCP2.pdf

https://domaci.ihned.cz/c1-66049530-pirati-jsou-proti-vyjimkam-pro-velke-uhelne-elektrarny-navrhuji-zmenu-zakona-o-ovzdusi-obcim-chteji-umoznit-zakazat-topit-uhlim



4. Alignment of ČEZ with the Paris Agreement

FSB TCFD: the case for forward-looking climate assessments

The industry-led Financial Stability Board (FSB) Task Force on Climate-related Financial Disclosures (TCFD)¹⁶ provides important guidance on how companies and investors can assess and disclose climate-related financial risks. It notably recommends companies to undertake and disclose forward-looking climate scenario analysis, which it considers instrumental to understand how vulnerable organisations are to climate-related financial risks, and how such vulnerabilities can be addressed.

The following paragraphs present the impacts of climate science on coal power generation; as well as tools that provide forward-looking analysis for coal plants of ČEZ.

What climate science means for coal power globally and in Europe

According to the latest climate science, limiting warming to 2°C by 2100 means that the net emissions of greenhouse gases need to be reduced by 40-70% by the time we reach 2050, and brought to zero by the end of the century. Respecting the more stringent limit of 1.5°C will require reducing emissions of greenhouse gases even more rapidly in the coming years and decades, and bring them to zero around mid-century.

This has two implications for coal power. First, research has shown that no new investments in fossil electricity infrastructure – notably coal – are feasible from 2017 at the latest. Second, existing coal infrastructure needs to retire early: even with no new coal plant construction, emissions from coal power generation in 2030 would still be 150% higher than what is consistent with the well below 2°C target. 20

The implications of the Paris Agreement for coal and renewable power are clear. Investors have recently acknowledged climate science research that supports the need to phase out coal by 2030 within member countries of the Organisation for Economic Co-operation and Development (OECD) and the European Union; by 2040, in China; and by 2050, in the rest of the world. More recent analysis by the International Energy Agency (IEA) 'beyond 2°C scenario' indicates that non-OECD countries should phase out production from coal power even earlier, by 2040. In the

¹⁶ https://www.fsb-tcfd.org/about/

¹⁷ IPCC (2014), AR5

¹⁸ Climate Action Tracker (Climate Analytics, Ecofys, NewClimate Institute, Potsdam Institute for Climate Impact Research)

¹⁹ Pfeiffer, Millar, Hepburn, Beinhocker (2016), The '2°C capital stock' for electricity generation: Committed cumulative carbon emissions from the electricity generation sector and the transition to a green economy, in Nature.

²⁰ ClimateAnalytics (2016), Implication of the Paris Agreement for coal use in the power sector



European Union, a quarter of the coal plants already in operation will need to be switched off before 2020, and a further 47% should go offline by 2025.²¹

The analysis above underscores how ambitious climate action is incompatible with continued coal-fired power generation in developed economies. That in turn illustrates the risk of investing in new coal plants or upgrading existing coal plants, both of which run a risk of becoming stranded assets. Investors, insurers and banks that wish to minimise financial risks and maximise returns must therefore make this dependent on ČEZ implementing a business strategy that is aligned with the Paris Agreement.

In 2015 ČEZ committed to aim "to achieve carbon-neutral electricity generation by 2050". It is not clear, if that goal contains offsets and compensations and if so, how many. ČEZ's new build plants also add confusion to this date: typically coal plants operate for 40 years, but the newly planned lignite heating plant at Melnik would only be ready to start operating in 2024, and the new 660MW Ledvice unit is also about to come into operation. ²²

Carbon Disclosure Project analysis

The Carbon Disclosure Project (CDP) has developed a league table of 14 European utilities based on the risks identified by the FSB TCFD.²³ It notably assesses transition risk, introducing a model to measure locked-in emissions between 2015-2050 from current fossil fuel assets against companies' implied carbon budgets to achieve a 2°C transition.

The analysis shows that ČEZ ends up in 13th place out of 14, beating only RWE. ČEZ performed poorly in all categories.

Figure 1:	League	Table	summary
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League Table rank	2015 League Table rank	Company	Country	Average market cap 2016 (€bn)	European market share in 2015 (i)	League Table score	Managing transition risks	Managing physical risks	Transition opportunities	Climate governance & strategy
1	3	Verbund	Austria	5	1.0%	3.78	Α	Α	Α	В
2	1	Iberdrola	Spain	40	2.4%	5.35	В	E	Α	Α
3	7	Fortum	Finland	13	1.5%	6.45	В	В	В	D
4	4	Enel®	Italy	37	3.9%	6.48	С	E	Α	В
5	11	SSE	UK	20	0.9%	6.51	С	В	С	C
6	2	Centrica	UK	15	0.6%	6.65	В	С	D	С
7	6	EDF	France	23	18.4%	6.68	В	С	E	В
8	5	EDP	Portugal	11	1.4%	6.72	D	D	Α	В
9	9	E.ON®	Germany	17	2.7%	7.13	С	C	В	С
10	8	ENGIE	France	34	4.0%	7.98	С	С	D	С
11	12	EnBW	Germany	6	1.7%	8.22	E	С	С	С
12	10	Endesa	Spain	20	2.4%	8.66	D	D	С	D
13	-	CEZ	Czech Republic	9	1.9%	9.44	D	D	D	E
14	13	RWE®	Germany	7	6.5%	10.89	E	С	E	E

²¹ ClimateAnalytics (2017), A stress test for coal in Europe under the Paris Agreement: scientific goalposts for a coordinated phase-out and divestment.

²² https://www.ČEZ.cz/en/ČEZ-group/media/press-releases/5320.html

²³ CDP (2017), Charged or static - Which European electric utilities are prepared for a low carbon transition? The utilities assesses are: Verbun, Fortum, Iberdrola, Enel, SSE, Centrica, EDF, EDP, E.ON, Engie, ENBW, Endesa, ČEZ and RWE.



5. Investor, insurer and bank action

There is a growing consensus amongst leading financial institutions globally that as the world is moving irreversibly towards a low carbon economy, coal power assets are going to be stranded, and hence constitute growing financial and reputational risks. Many banks and investors have adopted coal policies that have started to affect the access to financing and insurance for ČEZ. Below is an overview of these impacts, which also highlights what additional action banks and investors need to undertake to bring the ČEZ business model fully in line with the UN Paris Climate Agreement.

Impact of existing investor and bank policies on ČEZ

Tool: the Global Coal Exit List (GCEL)

The 'Global Coal Exit List' (GCEL) is the world's largest coal company database, providing key statistics on 775 companies and their subsidiaries. The database was developed by urgewald, is open-source, free and can be consulted on https://coalexit.org/.

The GCEL includes three categories of coal companies: mining, utility and service companies (i.e. companies that provide services throughout the coal value chain such as dedicated trade, infrastructure, port terminals, finance, etc.). It provides data, key statistics and identifiers (ISIN codes, if available) for each company.

The GCEL includes utilities that qualify for one or more of the 3 following criteria:

- They are planning coal power expansion;
- They have a coal share of revenue/power generation above 30%;
- They operate more than 10 gigawatt of coal capacity.
- ČEZ is included in the GCEL because it has coal expansion plans, and because coal represents a 46% share of its total electricity production.



Impacts of investor policies on ČEZ

A significant number of mainstream European investors have adopted public coal divestment policies. Most of these policies identify thresholds for revenues or power production from coal.

- ČEZ group's share of coal power production (46%) is between the most commonly used thresholds of 30% and 50%; some investors are thus divesting from ČEZ. Hence, ČEZ will be affected by most investor coal policies, including by those adopted by the Norwegian Sovereign Wealth Fund, Allianz, AXA, Generali, Hannover Re, Lloyd's, Munich Re, SCOR, Swiss Re, and Norwegian asset manager Storebrand.
- In addition to identifying companies based on their relative exposure to the coal sector, Allianz, Generali, SCOR and a growing number of smaller investors also screen companies that are planning new coal plants. This applies to ČEZ, as it is still planning to build new coal plants.

Coal policies of investors are getting more stringent over time, so it can be expected that they will increasingly affect ČEZ going forward. Investors are also adding pressure through public engagement – as opposed to only engaging in dialogues behind closed doors. ČEZ is listed as one of the target companies of the **Climate Action 100+ Coalition** that asks companies (amongst others) to 'take action to reduce greenhouse gas emissions across their value chain, consistent with the Paris Agreement's goal of limiting global average temperature increase to well below 2-degrees Celsius above pre-industrial levels'.²⁴

Impact of bank policies on ČEZ

15 European banks have ended direct finance to new coal plants, which to date has been the main focus of banks' coal policies.²⁵ Policies that restrict corporate loans, and shares and bonds underwriting are less widespread, but 11 banks have adopted such policies. The following banks have adopted policies that are relevant to ČEZ's activities:

- **ING** has committed to 'by 2025 no longer finance new and existing clients in the utilities sector that are over 5% reliant on coal'. This implies that the bank should stop financing the ČEZ group if it still has too many coal plants by 2025.²⁶
- Société Générale has committed to 'limit the coal-fuelled part of its financed energy mix (installed MW) at 19% at the end of 2020, in consistency with the IEA 2°C scenario'.27 This implies that the bank has an internal decreasing 'coal budget' for new transactions with its clients, and that either its clients must change their share of energy mix by the deadline, or they will stop financing them.
- Another example is the KBC group, which has a new coal policy and which has effectively stopped financing new and existing coal activities. KBC group, through its daughter bank CSOB, is among the top three banks in CZ, so this decision may well have a material effect on ČEZ.

²⁴ http://www.climateaction100.org/

²⁵ Banktrack provides an overview of commercial banks' coal policies on their website.

²⁶ ING (2017), <u>Updated Environmental and Social Risk Framework.</u>

²⁷ Société Générale (2016), Coal-Fuelled Power Sector Policy.



Impact of insurer policies on ČEZ

Within a very short period of time, all leading European coal underwriters, except for Hannover Re, Mapfre and the Lloyd's insurance market, have adopted public criteria restricting their insurance coverage to the coal sector.

- Allianz, AXA, Generali, Swiss Re and Zurich have ended underwriting support to stand-alone new coal plants and mines. Munich Re has ended similar support in industrialized countries.
- **SCOR** has ruled out facultative reinsurance coverage to new mines and to new lignite plants.
- **AXA** will not provide insurance packages in which more than 50% of premiums are linked to coal. This is relevant for existing coal plants and is expected to impact companies such as ČEZ that are strongly exposed to coal.
- **Swiss Re** and **Zurich** are committed to not provide coverage to companies generating more than 30% or 50% of their power production from coal.
- **Generali** will not provide coverage to new clients that generate more than 30% of their revenues or power production from coal, produce more than 20 million tonnes of coal a year, or are planning new coal plants. Generali is also engaging with existing clients, "monitoring their plans to reduce environmental impacts, their strategy to shift to low-carbon activities and the measures envisaged for protecting the community and citizens" Depending on the outcomes of the engagement dialogues in Q1 2019, Generali will decide to either end property coverages for coal-related activities of these companies or will renew them.
- Allianz has committed to fully phase out coal-based business models across its property
 and casualty portfolios by 2040. This implies that the insurer will have to reduce its
 exposure to coal companies over time and that clients will have to demonstrate their
 capacity to fully phase out their coal assets by 2040 or will lose Allianz's underwriting
 support.

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²⁸ Generali's coal policy can be accessed from this page: https://www.generali.com/our-responsibilities/our-commitment-to-the-environment-and-climate



6. Recommendations

Investors, insurers and banks should require ČEZ to:

- Commit to align its business model with the UN Paris Climate Agreement and, more concretely, adopt a time-bound climate science-based target built on a forward-looking, climate-scenario analysis.
- Put an immediate end to capital expenditure for the extension of mining, new coal plants and the retrofitting of existing coal plants that would lead to life-extensions. This would include dropping the new Melnik plant, and the immediate cessation of significant upgrade work and lifetime extensions at existing plants, as well as abandoning the plan to prolong mining in the Bílina lignite open-pit mine.
- Publish a clearly articulated and detailed roadmap for the gradual retirement (not sale)
 of ČEZ's existing coal plants, ending at the latest in 2030, and that incorporates a just
 transition plan for affected communities and workers. Investors and banks should
 encourage ČEZ not to sell its coal plants, but rather take ownership of them.
- Join and report according to the TCFD guidelines.

Investors, insurers and banks should also adopt 'no coal policies' along the lines of the 'principles and approaches for impactful public coal policies' developed by the Europe Beyond Coal campaign (see box below).

Investors and banks should also consider divestment. ČEZ mines 21 million tonnes of coal, produces 46% of electricity from coal, and is still investing in new and existing coal plants and mines. Based on these criteria, many investors and banks would exclude ČEZ.

Investors, insurers and banks should also adopt 'no coal policies' along the lines of the 'principles and approaches for impactful public coal policies' that were developed by the Europe Beyond Coal campaign (see box below).



Europe Beyond Coal's principles and approaches for impactful and meaningful public coal policies for financial actors

In order to meet the UN Paris Climate Agreement goals of limiting "global average temperature to well below 2 °C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C", no new coal power capacity may be built and coal power will need to be phased out in the coming years. Investors have recently acknowledged climate science research that support the need to phase out coal by 2030 in the European Union and in Organisation for Economic Co-operation and Development (OECD) countries; by 2040, in China; and by 2050, in the rest of the world. More recent analysis by the IEA 'beyond 2°C scenario' indicates that non-OECD countries should phase out production from coal power even earlier, by 2040.

- **A. Overall commitment**: to mitigate climate and financial risks associated with the coal sector, finance actors* should adopt a public "no coal policy", which supports the alignment of their business models with climate science-based targets that are consistent with the goals of the UN Paris Climate Agreement. This implies that finance actors should commit to over time (2030 in OECD/Europe, 2040 globally) eliminate coal assets from all business lines, and that all coal companies in which they are involved should either be actively engaged with or divested from.
- **B.** Exclusion criteria for coal projects: as a consequence, finance actors should not provide or renew direct support to coal plants/mines/infrastructures worldwide including project finance and other dedicated finance support, advisory mandates, insurance underwriting, investment.
- **C. Assessment criteria for exclusion of coal companies**: the criteria below capture companies that are currently either expanding or are highly exposed to coal, in relative as well as absolute terms:
 - Companies with coal expansion plans, including the construction/development/ expansion of coal plant/mine/infrastructure, and life extension of existing coal plants through retrofit, acquisition of existing coal assets;
 - Companies producing more than 20 Mt of coal per year, or with over 10 GW of coal power capacity;
 - Companies that generate more than 30% of revenues from coal mining or produce more than 30% of power from coal.

By applying these criteria to their financial universe, finance actors can identify which companies are currently unlikely to be able or be unwilling to transition rapidly enough to a 100% renewables-based energy system, and reconsider financial support** accordingly. These criteria should become stricter over time, as the deadline for a complete coal phase-out is approaching.

D. Criteria for engagement with coal companies: additional criteria need to apply to companies that own coal assets, but are considered to still have an opportunity to transition rapidly enough to a 100% renewables-based energy system. By applying targeted and impactful engagement*** finance actors should ask those respective companies to:



- Adopt, within one year maximum, a decarbonisation target to gradually align their business model with the UN Paris Climate Agreement.
- Publish, within two years maximum, a clearly articulated and detailed implementation plan for the gradual closure (not sale) of existing coal plants and mines, exiting coal at the latest in 2030 in the OECD and in Europe, and in 2040 in the rest of the world.

By applying these four recommendations, a finance actor will achieve zero coal exposure within the respective decarbonisation timeframes.

- *Finance actors include banks, insurers and investors.
- **Financial services include lending, underwriting, advisory, insurance coverage and investment with regards to own accounts as well as third parties.
- ***Financial institutions must gradually reduce/remove financial support within set timeframes (6, 12, 18, 24 months) if the engagement process does not lead to significant results.



This paper was issued by the Europe Beyond Coal campaign in December 2018.

Europe Beyond Coal is an alliance of civil society groups working to catalyse the closures of coal mines and power plants, to prevent the building of any new coal projects and hasten the just transition to clean, renewable energy and energy efficiency. Our groups are devoting their time, energy and resources to this independent campaign to make Europe coal free by 2030 or sooner. beyond-coal.eu

These organisations have contributed to the development of the paper:

- Banktrack
- Greenpeace CZ
- Sandbag
- The Sunrise Project
- WWF European Policy Office

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