





Phase-out 2020: monitoring Europe's fossil fuel subsidies

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Czech Republic



Leading on phasing out fossil fuel subsidies:

- The State Energy Policy (SEP), which was approved in 2015, favours reducing greenhouse gas (GHG) emissions, including through the gradual closing down of coal-fired power plants. Together with restrictions on brown coal mining, this means that coal's status as the leading source of the power system will gradually fade.
- A framework and action plan for the economic restructuring of three coal mining regions (Karlovarsky, Moravskoslezsky and Ustecky) were approved in 2017.

Lagging on phasing out fossil fuel subsidies:

- The Czech Republic's transparency and reporting on fossil fuel subsidies remains relatively poor compared with other European countries including France, Germany, Italy and Sweden. The fossil fuel estimates in this study are therefore likely to be underestimates.
- Despite the reference to closing down coal-fired plants in SEP, support for coal-fired power continues.
- The state-owned energy company České Energetické Závody (ČEZ) Group invests at least CZK32 billion (€648 million) per year in fossil fuel-related activities.
- Finance is also provided through the two arms of the Czech export credit agency, Česká Exportní Banka (Czech Export Bank, ČEB) and Exportní Garanční a Pojištóvací Společnost (Export Guarantee and Insurance Corporation, EGAP), which invest in fossil fuel-related projects abroad. Unfortunately, a list of projects is not publicly available, and limited information about the size of investments can be obtained from annual reports.



Czech Republic

France Germany Greece Hungary Italy Netherlands Poland Spain Sweden United Kingdom European Union

Status of the energy transition in the Czech Republic

The Czech Republic is the third-largest net electricity exporter in the EU, after France and Germany. The Czech Republic's electricity mix is dominated by coal and nuclear, which accounted for 54% and 32.5% of the supply in 2015 respectively (World Development Indicators (WDI), 2017). While oil and gas are a small part of the electricity mix (0.1% and 2.7%), they are used in higher amounts as other energy sources, and comprise 19% and 16% of the total energy supply (IEA, 2016).

There are large coal reserves, and domestic coal has been the main source for electricity generation and heating for decades, with economically recoverable coal reserves estimated to be around 800 million tonnes (Euracoal, 2017). Lignite, or brown coal, accounts for more than 90% of the country's reserves, and is mainly produced in north-western Bohemia, while hard coal is mined in northern Moravia. Nine coal mines are still in operation (Organisation for Economic Co-operation and Development (OECD), 2016). In 2015, nearly 8,000 people worked in the lignite industry in the Czech Republic (Euractiv, 2017). Large quantities of hard coal are exported to Austria, Germany, Hungary, Poland and Slovakia (Euracoal, 2017). However, since 2005 coal supply has fallen by 21% (IEA, 2016).

In contrast, domestic production of oil and gas is negligible, and the country is highly dependent on imported crude oil and natural gas. Most of the country's natural-gas imports come from Russia (99%), as agreed under long-term contracts with Gazprom (which extend until 2035), but imports from Norway (1%) are expected to increase in the coming years (OECD, 2016). Similarly, almost all the crude oil supplied to the Czech Republic is imported from Russia (over two-thirds) and Azerbaijan (around a quarter), with small amounts produced in Southern Moravia (OECD, 2016). Renewable energy plays a minor role, though its share in total primary energy supply (TPES) increased from 2% in 2000 to 9% in 2013 (OECD, 2016).

The State Energy Policy (SEP), approved in 2015, favours reducing greenhouse gas (GHG) emissions including through coal-fired power. Taken together with restrictions on brown coal mining resulting from territorial ecological limits, this means that the status of coal as the leading source of the power system will be replaced gradually by nuclear (IEA, 2016). However, the transition is expected to take decades, with one plant still expected to remain open in 2040, according to the Czech Industry Minister (Euractiv, 2017).

The country aims to achieve a 40% reduction in carbon dioxide (CO_2) emissions by 2030. The government also aims to increase energy savings in 2020 by 20% compared with business as usual (IEA, 2016). The government adopted a Strategy on Adaptation to Climate Change in

October 2015, and a National Action Plan to implement this strategy in March 2017 (European Commission, n.d.).

Status of fossil fuel subsidy phase-out in the Czech Republic

The European Union (EU) including all its Member States have committed to phasing out environmentally harmful subsidies, including those to fossil fuels, by 2020 (European Commission, 2011). In addition, EU Member States are committed to phasing out subsidies to hard coal mining by 2018. As party to the Paris Agreement, the Czech Republic has also committed to '[m]aking finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development' (United Nations Framework Convention on Climate Change (UNFCCC), 2015). As a member of the EU bloc that is party to the G7, Czech Republic has committed to phasing out its 'inefficient' fossil fuel subsidies, and called on all countries to do so as well, by 2025 (G7, 2016). As a member of the EU, and therefore a part of the G20, Czech Republic has repeated its commitment to phase out fossil fuel subsidies every year since 2009 (G20, 2017). With nearly 40 other countries and hundreds of companies, [country name] signed a communiqué in 2015 calling on countries to eliminate inefficient fossil fuel subsidies (Friends of Fossil Fuel Subsidy Reform (FFFSR), 2015).

The Energy Regulatory Office (ERO) regulates the energy sector while the State Energy Inspection oversees compliance. The prices for coal and end-use natural gas are set freely by the market. However, some natural-gas and electricity prices are regulated, particularly in transmission and distribution. The government aims to keep electricity costs at affordable levels for households as well as industry in order to preserve the competitiveness of the economy, and has a goal to keep electricity prices below the average of the 28 EU Member States (IEA, 2016).

There are exemptions to energy or excise tax, depending on the type of fuel or use or source of electricity.

Overview of fossil fuel subsidies by the Czech Republic

The government of the Czech Republic does not publish an inventory of its fossil fuel subsidies or environmentally harmful subsidies. This contrasts with Germany which demonstrates higher transparency in publishing such inventories regularly (see Whitley et al., 2017). In the absence of systematic government reporting or a roadmap for the phase out of fossil fuel subsidies, it is challenging to assess whether the Czech Republic is on track to meet its subsidy phase out commitments.

Due to limited transparency, our research found no data for 17% of the fiscal support instruments, 60% of the projects and programmes supported through public For more information on the sources of data and the methodology used in this report, please refer to the Methodology chapter of the summary report, *Phase-out 2020: Monitoring Europe's fossil fuel subsidies.*

finance, and 50% of the state-owned enterprise (SOE) investments, identified for this report.

Despite Hungary's commitments to phase out fossil fuel subsidies, the government continues to provide support domestically (and internationally) to all sectors reviewed in this brief through fiscal support subsidies, public financing and SOE investment.

Based on available information Table 1 below provides an estimate of the scale of the Czech Republic's fossil fuel subsidies per year on average between 2014 and 2016 (using publicly available sources).

Our analysis finds fiscal support of CZK7.8 billion (€373 million), public finance of over CZK4 billion (€152 million), and state-owned enterprises (SOEs) investment of over CZK32 billion (€648 million).

All the fiscal support identified for coal mining, worth CZK2.3 billion (\notin 87 million) per year between 2014 and 2016, is provided as aid for the closure of mines, and for rehabilitation and transition.

Between 2014 and 2016, more than CZK 2.8 billion (€106 million) per year of fiscal support were provided to industry and business.

The following sections give more detail on subsidies provided to the production and consumption of oil, gas and coal, and to fossil fuel-powered electricity. The summary below is not comprehensive; the full list of subsidies can be found in the country data sheet.

Coal mining

Since 2011, the Czech Republic has been following a 2010 European Council (EC) Decision that only allows state aid for mines for the purposes of supporting their closure, the treatment of health damage to miners, and the remediation of environmental liabilities related to past mining. All of the subsidies identified that are for coal mining (all fiscal support) are therefore supporting the transition away from coal. In line with the EU Council decision, they are to end in 2018.

Czech mining companies have been held responsible for the remediation of damages caused by mining only since 1994. To cover the costs for damages prior to 1994, the government allocated around €1.5 billion (CZK 37 billion) in 2009 to fund environmental clean-up projects on abandoned mines throughout the country. This onetime disbursement mostly accounted for the record gains in coal support observed in 2009, but is not included in the total subsidy calculations for this report, which use data between 2014 and 2016 (OECD, 2016).

In 1992, the state committed to finance the technical work for closing mines, rectifying the consequences of past mining activity, and covering the social costs of phasing out mining activity (e.g. health benefits for miners)

	Production				Consumption					TOTAL
Activity / instrument	Coal mining	Oil and gas	Electricity	Multiple or unclear	Transport	Industry and business	Household	Agriculture	Multiple or unclear	
Fiscal support (Budget expenditure + tax exemptions + price relief)	2,341	2.6	1,045	0	n/a	2,861	300	1,282	0	7,832
Public finance	0	0	4,019	0	0	0	0	0	0	4,019
Domestic and EU	0	0	0	0	0	0	0	0	0	0
International (outside EU)	n/a	0	4,019	0	0	0	0	0	0	4,019
State-owned enterprise investment	0	0	32,158	0	0	0	0	0	0	32,158

Table 1. Subsidies to fossil fuel production and consumption by the Czech Republic, by activity (Czech Koruna millions, average 2014-2016)

Notes: This table is in the local currency, but numbers are compiled in Euros for the overall analysis presented in the summary report. For sources and data, see country data sheet available at: odi.org/Europe-fossil-fuel-subsidies

(OECD, 2016). Two state-owned enterprises, DIAMO and Palivový Kombinát Ústí (Fuel Combine Ústí), carry out the restructuring and clean-up of the coal mining sector (OECD, 2016). The Palivový Kombinát Ústí aims to revistalise former mines and alleviate the impact of mining activities as well as of ecological burdens in previous oil and natural-gas extraction sites in South Moravia. The company was administering 534 mining locations by the end of 2012 (Eurosai, n.d.).

In 2016, the EC approved a proposal from the Czech Republic to provide €22 million in State Aid to OKD (Ostravsko-Karvinské Doly), a private mining company, to cover the costs of the closure of the Paskov mine, which was making a loss on every tonne of coal it produced (EC, 2015). This aid will be provided on the condition that the mine is permanently closed by 31 December 2017, and will be used to cover expenses linked to workers who will lose their jobs as a result of the closure of the mine (EC, 2015).

Aside from financing transition support from the government budget, the government continues to support coal mining activities through the state-owned energy company, České Energetické Závody (ČEZ), owns the lignite mining company Severočeské Doly (SD). SD produces around 50% of the lignite in the Czech Republic and is also the largest consumer of coal, operating the majority of coal-fired power plants in the country (OECD, 2015).

Oil and gas production

We identified very few subsidies towards new oil and gas production, but this may be due to limited transparency in reporting on such support.

The Palivový Kombinát Ústí, which revitalises former mining sites, also settles old ecological burdens in previous oil and natural-gas extraction sites in South Moravia. No data is available on the support provided for oil and gas sites (Eurosai, n.d.).

A relatively small amount of support from the government, CZK2.6 million (€100,000) per year, was provided for research, development and demonstration (RD&D) of oil and gas projects in the Czech Republic between 2014 and 2016. The government also provided around over CZK6.5 million (€240,000) per year for RD&D on carbon capture and storage (CCS) during the same period.

In 2016, the Czech and Polish Prime Ministers agreed to continue a delayed gas interconnection project between their two countries, despite continuing doubts about implementation. Financing of €63 million for the project, named Stork II, is expected to come from the Connecting Europe Facility (Euractiv, 2016). The Connecting Europe Facility is discussed in detail in the European-level subsidies brief.

Electricity production

Domestic, and EU countries

The European Commission has recently ruled that a Czech government support scheme for electricity generation from highly efficient combined heat and power plants (CHPs) is in line with EU state aid rules. Natural gas is the fuel that usually benefits from subsidies paid to CHP developers. In March 2017, the Czech Republic notified Brussels of the CZK11.4 billion (\notin 420 million) support scheme, which will benefit such CHPs commissioned from January 2016 until December 2020 (European Commission, 2017).

The government supports also support coal and coal-fired power through tax exemptions that lower the cost of coal consumption. Moreover, its support for the modernisation of coal mines under the EU Emissions Trading Scheme (ETS) serves to extend the lifetime of coal assets in the Czech Republic (Patel, et al., 2017). Article 10c of this scheme (EU ETS) gives '[low-income member states] allowances for free to electricity installations under the condition that they invest at least the equivalent monetary value in the modernisation and diversification of their energy systems' (Carbon Market Watch, 2016). However, instead of diversifying its energy sources, the Czech Republic is using these investments to modernise its fossil fuel capacity, invest in new fossil fuel energy production, and increase future coal consumption (Carbon Market Watch, 2016). About half (46%) the investments listed in the Czech Republic's Article 10c national plan support coal-fired installations (Carbon Market Watch, 2016).

State-owned České Energetické Závody (ČEZ) owns the largest Czech mining company (Severočeské doly a.s.), which meets 68% of ČEZ's lignite needs. Fossil fuels (Combined cycle gas turbines, black coal, and brown coal/ lignite) account for 55% of its total energy generation (ČEZ, 2017). Since 2010, ČEZ has continued to invest in coal-fired power production; investments in the Tušimice II and Prunéřov II power plants have been made to extend their operation for the next 20-25 years, while a new 600MW lignite plant at Ledvice is planned to operate for the next 40 (IEA, 2016).

The Czech transmission grid is owned and operated by CEPS, which is 100% owned by the Czech state, and has an annual turnover of over CZK98 million (\in 3.6 million) in 2015/16 (CEPS, n.d.).

International (outside the EU)

The Czech state-owned export credit agency provides support towards fossil fuel-fired power projects outside of the EU. The agency is made up of two arms: Česká exportní banka, a.s. (Czech Export Bank, ČEB) and Exportní garanční a pojišťovací společnost (Export Guarantee and Insurance Corporation, EGAP). There is a lack of transparency on reporting on ČEB's activities (Bankwatch, 2017), but the agency's latest annual report (ČEB, 2016) states that it aims to build on its work in three sectors in the upcoming period: the arms industry, aviation and the power industry.

EGAP finances a number of fossil fuel projects. These include insuring supplies for the renovation of the stateowned Naftan Oao oil refinery in Belarus. They also included the supply of a power plant for the Indonesian state-owned company Perusahaan Listrik Negara (PLN), carried out in cooperation with Korean KEXIM and Italian SACE, which was their most significant contract in non-European countries) (EGAP, 2016). Other significant insurance benefits were paid out in relation to the construction of two combined steam-gas power plants in Russia in 2016, worth CZK475 million (or \in 18 million) (EGAP, 2016). There are similar transparency issues here and a full list of EGAP's projects is not available.

Recently, ČEB and EGAP together provided around €444 million (CZK 12 billion), one of the largest sums they have ever provided, for the construction of the Yunus Emre thermal power plant in north-west Turkey. The plant's future is now uncertain due to technical as well as political challenges (ČEB, 2016; Bankwatch, 2017). This is one of number of projects to which the Czech export credit agency has provided lending, and which have since failed (Bankwatch, 2017), such as the already approved insurance and financing of the steam-gas cycle of the nowdiscontinued power plant in Erbil in Iraq (EGAP, 2014). However, EGAP states that is has been involved in working group discussions of export credit agencies on 'sustainable lending', including on the continuation of official support in exports of projects of power plants burning fossil fuels, in particular coal (EGAP, 2014).

Given the transparency issues regarding the projects financed by ČEB and EGAP, the findings in this report are likely to be an underestimate of the full amount of financing they provide.

State-owned ČEZ's activities abroad focus on a number of Central and South-eastern European countries and on Turkey, where its activities include electricity distribution, generation, trading and sales (ČEZ, 2017). No data or information on these projects or levels of financing are provided.

Transport

In the transport sector, diesel is taxed at a lower rate than gasoline (European Environment Agency (EEA), 2016). As of July 2016, the rate applied for gasoline was \in 383.63/1,000 litres, whereas the rate for diesel was \in 352.78/1,000 litres. Additionally, a tax exemption for passenger transport applies. International passenger transport services by any mode of transport are exempt with credit, whereas public transport and passenger transport by funiculars, teleferics and ski lifts are taxed at a reduced rate of 15% (European Commission, 2014). The subsidies were not quantified yet however.

Industry and business

The electricity price for industrial users is 0.0934/kWh including taxes and levies, less than the average for the 28 EU countries of 0.1496/kWh (IEA, 2016; Eurostat, 2016).

Fiscal support is provided through energy tax exemptions for certain use of natural gas and of solid fuels, including in industrial processes, which were worth CZK1.4 billion (\in 54 million) and CZK878 million (\in 32 million) in 2014, respectively (OECD, 2015). Energy tax refunds are also available for oil used in heating, whereby more than 90% of the excise duty is refunded (ECOFYS et al., 2016). The financial volume of the subsidy was CZK53 million (\in 20 million) in 2014 (OECD, 2015). Even though both these subsidies may also affect household, they were classified as industry and business given they are mostly expected to benefit these sectors.

Under the EU Emissions Trading Scheme (ETS), economic operators (utilities and industry) are required to obtain emission permits or allowances for each tonne of CO2 they emit. Although auctioning is supposed to be the default mode for acquiring emission allowances, close to half the total allowances are still handed out to polluters for free. As a result, in its current design the EU ETS provides a considerable amount of subsidies to carbonintensive operators in the form of free allowances.

Industries across the EU also profit from the ETS because of the overallocation of ETS permits, which they are able to sell off. This generated subsidies for the energy intensive industries of over \in 183 million between 2008 and 2015, or \in 23 million per year (Bruyn et al., 2016). However, this value was not included in the total amount of support identified in the country sheet, as it is not a direct subsidy.

In addition, Article 10c of the EU Emission Trading Scheme (ETS) Directive allows lower-income EU Member States to give free allowances to electricity installations on the condition that they invest the equivalent monetary value in the modernisation and diversification of their energy systems (Bankwatch, 2016). In the Czech Republic, almost half (about 46%) of investments listed in its Article 10c national plan support coal-fired installations. The total amount of support was estimated at CZK1 billion (€38 million) per year (between 2013 and 2019).

ČEZ Group stated in its 2016 annual report that it can get up to CZK1.8 billion (€69.6 million) emission allowances for electricity production in the country between 2013 and 2019 in exchange for investments reducing greenhouse gas emissions. However, this data was not included in the country data sheet, as it was not confirmed whether it was allocated. The report also says that the European Commission has proposed free allocation of up to 40% of emission allowances should continue post 2020 (ČEZ, 2017).

Households

Electricity prices for households are kept below the EU average, at $\notin 0.1273$ per Kilowatt-hour (kWh) including taxes and levies, compared to the EU average of $\notin 0.2078$ / kWh.

The Czech Government supports the replacement of old coal boilers with more efficient ones as part of its energy efficiency improvement efforts (Bankwatch, 2016). As a result households often stick to coal, since technologies using renewable sources like biomass or heat pumps are more expensive (Overseas Development Institute (ODI), 2017). The budget allocated to the programme is CZK 300 billion (\notin 11 million) per year, with the aim of replacing 7,500 boilers (IEA, 2016).

Agriculture

Diesel fuel used in agriculture attracts a partial refund of the country's excise tax, in accordance with EU Directive 2003/96/EC. In the past, 60% of the excise tax was refunded in most years. In early 2014, the Czech government phased out the subsidy, only to rescind the decision a few months later (OECD, 2016). This subsidy was worth CZK1.3 billion (\in 48 million) per year in 2014.

Other subsidies not described here are summarised in the country data sheet.

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This country brief is part of a series of 11 country briefs and an EU-level brief, the findings of which are collated in the summary report *Phase-out 2020: Monitoring Europe's fossil fuel subsidies*, available at **odi.org/Europe-fossil-fuel-subsidies**

For the purposes of this country study and accompanying country data sheet, fossil fuel subsidies include: fiscal support from governments (budgetary support, tax breaks, and price and income support), public finance, and investment by state-owned enterprises (SOEs). The years for which data was collected and analysed is 2014, 2015 and 2016, and findings are expressed in annual averages across this period.

The summary report *Phase-out 2020: Monitoring Europe's fossil fuel subsidies* provides a more detailed discussion of the methodology used for this country study. The authors welcome feedback on both this country study and the accompanying country data sheet to improve the accuracy and transparency of information on fossil fuel subsidies.



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