

Methodology of the Global Coal Exit List (GCEL)

Which companies are covered by the Global Coal Exit List?

The aim of Urgewald's database is to capture the entire global coal industry. The GCEL currently provides coal-related data for about 2800 companies, comprised of over 900 parent companies, 1800 subsidiaries, affiliates and joint ventures.

Companies are put on the GCEL if they meet at least one of three clearly defined criteria. These criteria were designed to ensure the inclusion of all companies, for which coal constitutes an essential part of their business model, which are an integral part of the global coal industry or which are expanding coal-related business.

Companies are listed on the 2020 GCEL if they meet at least **one** of the following 3 criteria:

- 1. Relative Criteria:** At least 20% of a company's power production or revenue is coal-related.

- a. Companies from the mining, power and services sector with a **coal share of revenue of 20% or more**.

In contrast to many other data providers, we include all components of the coal value chain in this calculation. This includes: coal power generation, coal production, coal trading, coal logistics, coal processing, coal power transmission, coal chemicals (coal to gas/liquids), coal-related operation & maintenance services, coal mining services, coal-related engineering, procurement and construction services, coal exploration, coal equipment manufacturing, underground coal gasification, coal advisory services and all other activities that are thermal coal-related. If companies provide sufficient information, the GCEL differentiates between business activities related to thermal and metallurgical coal. Wherever possible, we calculate the **thermal** coal share of revenue.

- b. Utilities¹ with a **coal share of power generation of 20% or more**.

If numbers on annual coal power generation were not available, the calculation is based on installed capacity. This criteria also applies to non-utilities with an installed coal-fired power capacity higher than 1 GW.

- 2. Absolute Criteria:** Companies whose annual thermal coal production exceeds or equals **10 million tons**, and companies whose installed coal-fired power capacity generation exceeds or equals **5 GW**. When determining coal-fired generation capacity or annual coal production, the respective generation and production numbers are only ascribed to companies if they are the actual asset owners. A coal mining services company that does not own any coal mines will have an annual coal production of 0 Mt in our database. However, it will of course be included if its coal share of revenue exceeds the 20% threshold.

¹ Based on the "Utilities" classification provided by the Global Industry Classification Standard (GICS), Bloomberg BICS, NACE, TE NAICS, TRBC and, if not available here, own research.

3. Expansion Criteria: Companies with coal power, coal mining or coal infrastructure expansion plans.

- a. Power: companies planning to develop new coal-fired power capacity of at least 300 MW.
- b. Mining: companies engaged in coal exploration activities; planning to develop new coal mines or planning a significant increase of at least 1 Mt annual thermal coal production.
- c. Services: companies involved in the development or expansion of coal transportation assets or infrastructure assets dedicated to support coal mines, coal transportation and coal-to-gas facilities.

Important coal-related and financial subsidiaries/affiliates/joint ventures of these companies are also included in the list.

Tighter thresholds for the 2020 GCEL

The thresholds we used to determine whether a company should be on the GCEL were developed in 2015, when we began building the original database. The intent was to provide the information financial institutions needed to develop and implement first coal restriction policies. In the meantime, however, the climate crisis has deepened in urgency. According to the 2018 IPCC report, coal-fired power generation must be reduced by 78% by 2030 and the IEA below 2°C scenario calls for a complete coal phase-out by 2040. Meeting these deadlines requires tightening the relative and absolute thresholds we use to determine which companies are included in the database.

The following changes in relative and absolute thresholds were therefore used for the 2020 update of the GCEL:

Relative thresholds

| | |
|---------------------------------|---------------------------------|
| Coal share of revenue: | From $\geq 30\%$ to $\geq 20\%$ |
| Coal share of power production: | From $\geq 30\%$ to $\geq 20\%$ |

Absolute thresholds

| | |
|--------------|---|
| Coal mining: | From ≥ 20 Mt p.a. to ≥ 10 Mt p.a. |
| Coal power: | From ≥ 10 GW to ≥ 5 GW installed capacity |

Sources

Relevant coal-related data is mainly extracted from the companies' own reporting. This includes company websites, annual reports, financial reports, credit rating reports and other company documents such as investor presentations and stock exchange filings. In some countries, we also rely on official information provided on government-owned websites. For the coal power expansion data, we use Global Energy Monitor's *Global Coal Plant Tracker* and other sources in cases where original company information is not available. We always use the most recent information we can find during the research period.

Estimations

Sometimes companies do not provide enough information to calculate the exact coal share of revenue or coal share of power production. In these cases, we provide a conservative estimate based on the company's available information. Estimates are indicated in the respective cells by "greater than" (>) and "less than" (<) signs. The calculation, rationality and sources on which the estimates are based are documented and can be provided on request.

Estimates of the coal share of revenue are calculated based on the following procedure.

- A) Calculation based on financial data of the company
- B) Estimation based on financial data of the company
- C) Estimation based on company description

The sources for A) are

- 1. Annual reports (AR) and financial statements (FS)
- 2. Credit rating reports (CRR)
- 3. Additional stock exchange information (equity, acquisitions/merger)

The sources for B) are

- 1. Annual reports (AR), but without detailed financial sector information
- 2. Credit rating reports (CRR), but without detailed financial sector information
- 3. Additional stock exchange information (equity, acquisitions/merger)
- 4. Governmental websites: company description on regional governmental websites
- 5. For China: Bidding websites with reliable information about companies
- 6. For China: University websites and recruitment website/platform where companies provide information for graduates, especially fresh graduates with very recent company information.
- 7. Company website

Quality of A): The estimates are based on calculations and assumptions and result in a number with a "greater than" sign (10% steps), e.g. >60%. The calculation is documented.

Quality of B): The estimates are based on company descriptions and result in five estimated categories (>20%, >30%, >50%, >70%, >90%), e.g. >50%. The assumptions on which the estimate is based on are documented. The following questions are considered when an estimate is provided:

- Which role does the coal sector plays within a company?
- How many other sectors does the company have?
- What was the sector the company was founded on when established?

Subsidiaries, affiliates and joint ventures

The GCEL contains many subsidiaries, affiliates or joint ventures of the companies that meet one or more of our criteria. Companies are very diverse in how they structure their business across different subsidiaries. Some utilities, for example, sell their coal power generation to their subsidiaries, which then market and distribute the power. Other coal power producers

have special financing subsidiaries, whose task it is to raise new capital for the parent company. As subsidiaries are functionally part of the same company, we believe they should be divested along with the parent. Our position on the parent/subsidiary question is also based on the observation that corporations often shift funds and assets across different divisions and subsidiaries.

As big conglomerates can have hundreds of subsidiaries, the GCEL only lists the subsidiaries/affiliates/joint ventures that have relevant coal activities or are financing subsidiaries. The 2020 update of the GCEL will provide detailed information on important (category 1) subsidiaries, which at least meet one of the following criteria. These subsidiaries:

- issue their own annual reports or credit rating reports,
- are one of the main agents of the company's coal-related activities (power, mining, services),
- are listed or own listed subsidiaries/affiliates/joint ventures,
- have an annual coal production equal to or above 10 Mt,
- have an installed coal-fired power capacity equal to or above 5 GW,
- are the main vehicle of the planned power/mining/infrastructure expansion.

We list and classify all other subsidiaries/affiliates/joint ventures as category 2 and only provide basic information for these companies such as their coal sector activity and the country of headquarters. Other information has occasionally been added.

Identification

For the identification of companies, we provide their legal name, headquarters and website. Additionally, we provide identification codes, including the ISINs for shares, LEIs, Bloomberg name, ID and FIGI on request. There are only a few companies that cannot be identified by one of these systems. We also introduced a consistent GCEL company ID which allows financial institutions to track the companies over the years.

Watch List

We keep track of all companies researched. Even if they do not qualify for the GCEL, they are put on our "watch list". This list also contains companies that are in a restructuring process and for which no reliable data is yet available. If you have any questions on a company not listed in our public database, please contact us via coalexit@urgewald.org.

No Database is Perfect

We do our best to achieve a broad coverage of coal industry companies in all regions of the world and to find and document the relevant information for each of these companies. However, gaps and uncertainties still exist, due to the fact that information is sometimes hard to find or simply not available. We are therefore always happy to receive any additions or corrections to further develop this database!

Explanation of the Columns in the Download Version of the GCEL:

Abbreviations:

| | |
|-------------|---|
| NA: | “not available”: Specific numbers are not available, but from our research we see that the company has coal activities in the respective field (e.g. coal production) |
| /: | “not existent” or “not applicable”: no calculation possible |
| NI: | No information was found or available |
| Empty cell: | The respective information for this cell was not researched |
| Cspp: | Coal share of power production |
| Csr: | Coal share of revenue |
| CtG/CtL: | Coal to Gas / Coal to Liquids |
| HQ: | Headquarters |
| EPC: | Engineering, Procurement and Construction |
| MW: | Megawatt |
| GW: | Gigawatt |
| GWh: | Gigawatt hours |
| Mt: | Million metric tons |
| sub/aff/JV: | Subsidiary/affiliate/joint venture |

Column A to D: Why is this company on the list, i.e. which of the GCEL criteria are met?

| Entry | Explanation |
|--------------|--|
| >10Mt: | The company produces 10 million tons or more of (thermal) coal annually. |
| >5GW: | The company operates 5 GW or more of installed coal-fired capacity. |
| Cspp: | The coal share of power production equals 20% or more. |
| Csr: | The coal share of revenue equals 20% or more. |
| Expansion: | The company meets the GCEL expansion criterion for either power, mining and/or infrastructure. |

Column E: Subsidiary/Affiliate/Joint Venture

| Entry | Explanation |
|--------------|---|
| 1: | The Subsidiary, Affiliate or Joint Venture is a category 1 company as explained above. For these companies a comprehensive research has been done. |
| 2: | The Subsidiary, Affiliate or Joint Venture is a category 2 company as explained above. For these companies' basic information such as their coal sector activity and the country of headquarters has been included. Other information has occasionally been added when found. |

Column F: Parent Company

The term “Parent Company” is used to describe the highest level within the corporate structure of a company that fulfills one or more of the GCEL criteria.

Column G: Company

Both parent Companies **and** subsidiaries/affiliates/joint ventures appear in this column.
Parent Companies are marked in blue and subsidiaries/affiliates/joint Ventures in white.
Subsidiaries/affiliates/joint ventures either fulfill one or more of the criteria themselves or
are on the list, because their parent company fulfills one or more of the criteria.

Column H: Coal Industry Sector

The coal-related activities are summarized into three sectors: Power, mining and services.

| Entry | Explanation |
|--------------------|---|
| Mining | Companies with a number or NA in the column coal production and companies that meet the mining expansion criterion. |
| Power | Companies with a number or NA in the column installed capacity and companies that meet the coal power expansion criterion. |
| Services | Companies with coal-related business other than coal mining and coal power. This includes: coal trading, coal logistics, coal processing, coal power transmission, coal chemicals (coal to gas/liquids), coal-related operation & maintenance services, coal mining services, coal-related engineering, procurement and construction services, coal exploration, coal equipment manufacturing, underground coal gasification, coal advisory services and all other activities that are thermal coal-related. |
| Services (finance) | Companies that are mainly operating in finance-related activities |

Column I: Country of Headquarters

Country where the company is headquartered.

Column J: Region

Geographical region² where the company is headquartered.

Column K: Expansion Plans Coal Power (Prorated) in MW

As coal plants can have more than one owner, we calculate the “prorated” new coal-fired power capacity planned by each company. Depending on information availability, the prorated MW numbers were calculated according to the company’s ownership of the project or the number of companies involved. The term “planned” includes projects that are announced, pre-permitted, permitted or under construction. The project-based data was extracted from the Global Energy Monitor’s *Global Coal Plant Tracker* and then confirmed, changed or supplemented through research on company-based sources.

Column L: Expansion Plans Coal Power (Total) in MW

² defined by the United Nations geoscheme

Total planned coal-fired power capacity of projects the company is involved in. The term “planned” includes projects that are announced, pre-permitted, permitted and under construction. The project-based data was extracted from the Global Energy Monitor Database and then confirmed, changed or added through research on company-based sources.

Column M: Countries of Coal Power Expansion

Lists the countries where the company is planning new coal-fired power plants.

Column N: Installed Coal Capacity

If this column shows a number or NA, the company has coal-fired power capacity.

Entry Explanation

| | |
|--------|--|
| Number | XY MW installed coal-fired capacity. |
| 0 | 0 MW installed coal capacity, but the company has power capacity using other types of fuels. |
| NA | The company has coal-fired power capacity, but exact data is not available. |
| NI | There is no information showing whether the company owns coal-fired capacity. |
| / | The company has no installed power capacity. |
| Empty | Not researched. |

Column O: Coal Share of Power Production

The coal share of power production is calculated based on the company’s annual power generation. If there were no generation (GWh) numbers available, we looked for capacity-based numbers (MW). In some cases, we provide an estimate based on the information in the annual report or on the company’s website.

Entry Explanation

| | |
|--------|--|
| Number | XY% of the power generation or of the installed capacity is coal-fired. |
| 0% | 0% of the power production is coal-fired, but it has other power generation. |
| NA | The company has coal-fired power generation, but no exact numbers are available. |
| NI | There is no information whether the company has coal-fired power generation. |
| / | The company has no power generation. |
| Empty | Not researched. |

Column P: Coal Share of Power Production based on generation/capacity

Entry Explanation

| | |
|------------|--|
| generation | The number shown in column O is based on power generation numbers. |
|------------|--|

capacity The number shown in column O is based on capacity numbers.

Column Q: Coal Share of Revenue

The coal share of revenue was calculated on the basis of data provided in the company's financial reporting. Business activities relevant for the calculation of the coal share of revenue include: coal mining, coal transport, coal marketing & trading, coal power & distribution, coal processing, coal equipment, coal exploration and all other activities, which are coal-related. If the company discloses financial data related to its thermal coal-related business activities, we calculate the thermal coal share of revenue, which is specified in column R.

Revenue from coke, coalbed methane, steel and cement production are not included in our coal share of revenue calculation.

Detailed financial information regarding a company's coal-related business activities is not always available. Where possible, we then provide an estimate (>30%, >50%, >90%) based on the information in the annual report or on the company's website.

Entry Explanation

| | |
|--------|--|
| Number | XY% of the revenue is coal. |
| 0% | 0% of the company's revenue is coal-related. |
| NA | The company has coal-related revenue, but no exact data is available. |
| NI | There is no information as to whether the company engages in any revenue-generating coal business. |
| / | The company has no operating revenue as of yet. |
| Empty | Not researched |

Column R: Coal Share of Revenue thermal/total

| | |
|---------|--|
| thermal | The coal share of revenue shown in column Q is calculated based on thermal coal-related business activities |
| total | The coal share of revenue shown in column Q is calculated based on total coal-related business activities. The total coal share of revenue is only applied if not enough information about thermal coal-related business activities is reported and thus a calculation or estimation of the thermal coal share of revenue is not possible. |

Column S: Annual Coal Production (in million metric tons)

If this column shows a number or NA, the respective company is involved in coal mining. If a company discloses its thermal coal production, this number comprehends thermal coal production. If the company does not differentiate between thermal and coking coal, its total coal production is recorded. This difference is specified in column T.

Entry Explanation

| | |
|--------|--|
| Number | XY million tons coal production. If thermal coal production numbers are available, they show up here. If the company does not provide distinct numbers for thermal coal, total coal production figures are listed. |
| 0 | No thermal coal production, but the company produces coking coal. |
| NA | The company produces coal, but no exact data is available. |
| NI | There is no information as to whether the company produces coal. |
| / | The company has no coal production. |
| Empty | Not researched. |

Column T: Annual Coal Production thermal/total

thermal The number in column S shows the annual thermal coal production.

total The number in column S shows the annual total coal production.

Column U: Countries of Coal Mining Expansion

If a company has coal mining or coal infrastructure expansion plans, this column provides the name of the country where the expansion is planned.

This information is provided for companies, which are planning to develop new coal mines, planning a significant expansion of annual thermal coal production (> 1 Mt) or that are involved in coal exploration activities. It also covers companies involved in the development or expansion of infrastructure assets dedicated to support coal mines and coal transportation, such as coal terminals or coal railways.

Column V: Company Website

The link to the website of the company is included here.

Column W: Company Reports

If the company has an Annual Report, the link to the report is provided here. If the company has no Annual Report, a link to other reports, such as the Financial Report (FR), Social Responsibility Report (SR), Sustainability Report (SR), Financial Statement (FS), Credit Rating Report (CRR), Environmental and Social Assessment (ESIA) is included here. Sometimes the information in the respective row has been obtained from the parent company's or subsidiary's report. In this case, the annual report of the parent company or subsidiary is provided here.

Column X: Ranking Coal Plant Developers

Ranking of Coal Plant Developers (only parent companies) by planned expansion. The company with the largest coal power expansion plans is ranked "1", the second-largest is ranked "2" and so on. Important subsidiaries are also ranked by adding 0,5 to the parent's respective ranking. The complete Coal Plant Developers List (CPDL) also includes the subsidiaries/affiliates/joint ventures of these ranked parent companies.

Column Y: Ranking Mining companies (by coal production)

Ranking of the companies with coal mining activities (only parent companies) by annual coal production. The largest coal producer is ranked “1”. Major coal mining subsidiaries/affiliates/joint ventures are also ranked by adding 0,5 to the parent’s respective ranking.

Column Z: Ranking Power Companies (by installed capacity)

Ranking of the largest coal plant operators (only parent companies) by installed coal-fired power capacity. The largest coal plant operator is ranked “1”. Major coal power subsidiaries/affiliates/joint ventures are also ranked by adding 0,5 to the parent’s respective ranking.

Columns AA to AC: Old GCEL thresholds used in the GCEL 2017 and 2019

These columns show which of the old thresholds the company fulfils.

Entry Explanation

>20Mt: The company produces 20 million tons or more of (thermal) coal annually.

>10GW: The company operates 10 GW or more of installed coal-fired capacity.

Cspp: The coal share of power production equals 30% or more.

Csr: The coal share of revenue equals 30% or more.