Global Oil & Gas Exit List 2024

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Definitions and Methodology

This document accompanies the excel version of Urgewald's Global Oil & Gas Exit List (GOGEL) that can be downloaded at https://gogel.org/. GOGEL is an extensive public database that provides information on companies operating in the oil and gas industry. The database presents different metrics designed to depict the size and composition of a company's oil & gas operations and its expansion activities in the upstream, midstream, and power sector. The database was compiled to assist financial institutions in the development and implementation of meaningful oil & gas divestment criteria.

The companies listed in the upstream part of GOGEL account for over 90% of annual global hydrocarbons production, over 90% of planned short-term upstream expansion, and over 90% of exploration expenditures.

The data in our tables comes from various sources: The information about current hydrocarbons production, production percentages, and upstream expansion, which can be found in the Upstream tab, is based on quantitative data obtained from Rystad Energy (Columns L-AA). Rystad Energy compiles asset-level data on hydrocarbons production, resources, and the associated economics. Its data is based on government and industry documents, as well as Rystad's own modeling.

The Midstream Expansion tab contains information about companies developing new pipelines and LNG terminals. Data provided by Global Energy Monitor (GEM) facilitates our project detection process and serves as a starting point for our midstream research.

The O&G Power Expansion tab contains information about companies developing new oil- and gas-fired power capacity. Data provided by Global Energy Monitor (GEM) facilitates our project detection process and serves as a starting point for our power research.

Our revenue analysis and power portfolio research is based on company sources, like annual reports, financial statements, and investor presentations. For our project research, we also rely on government sources and reliable news outlets.

GOGEL will be updated each fall and amended over time by including further subsectors of the oil & gas industry and by increasing coverage.

We are always happy to receive questions, comments, and suggestions that might lead to the improvement of GOGEL and eventually, a fossil-free future. Please contact Urgewald via gogel@urgewald.org.

Below, we provide a detailed description of the content and the underlying definitions for each column.

[Upstream]

QUICK FILTERS

Column A

Production ≥ 20 mmboe

This column indicates if a company meets our production threshold (≥ 20 mmboe).

Column B

Unconventional Production ≥ 2 mmboe

This column indicates if a company meets our unconventional production threshold (≥ 2 mmboe).

Column C

Short-Term Expansion ≥ 20 mmboe

This column indicates if a company meets our Short-Term Expansion threshold (≥ 20 mmboe).

Column D

Exploration CAPEX ≥ 10 MUSD

This column indicates if a company meets our Exploration CAPEX threshold (≥ 10 MUSD).

Column E

IEA NZE incompatible Upstream Expansion

This column indicates if a company has IEA NZE incompatible expansion plans. A company is marked if it has an IEA NZE Expansion Overshoot (column Y) above 0 and/or Exploration CAPEX (column Z) above 0. The column can be used as an indicator to assess the credibility of oil and gas companies' transition plans.

COMPANY INFORMATION

Column F

Parent Company

The official name of the company.

Column G

Company

This column either provides the legal name of the parent company (blue cells) or a relevant upstream subsidiary (white cells). All further data points in the row refer to the company listed in column G.

Column H

Type of Subsidiary

This column allows users to filter for majority owned upstream subsidiaries.

Column I

Country of Headquarters

Column J

Primary Business Sectors

This column lists the main business sectors relating to all business activities carried out by the company. The entries are sorted by revenue whenever company sources allow for it. The categories used are based on NACE industry codes. Possible entries are: Oil & Gas, Agriculture, Mining, Manufacturing, Power, Water & Waste, Construction, Wholesale & Retail Trade, Transportation, Hospitality, IT & Communication, Finance, Real Estate, Services, Health Care, Recreation, Multi-Sector Holdings (if more than five categories apply).

Column K

Oil & Gas Subsector

This column includes oil and gas subcategories to specify the business activities carried out by a company along the oil and gas value chain. The entries are sorted by revenue whenever company sources allow for it. Possible entries are:

- O&G E&P: All upstream activities (exploration, development and production of oil and gas)
- O&G Equipment & Services: Provision of oil- and gas-related equipment and support activities
- O&G Midstream: Transmission, transportation and storage of oil and gas
- O&G Downstream: Refining and marketing
- O&G Petrochemicals: Manufacturing based on petrochemical feedstock as the main input factor
- Gas Distribution: Transportation, distribution, and supply of gaseous fuels to end customers
- O&G Power: Power generation, transmission, distribution and trading
- O&G Trade: Trading of oil and gas

Column L

Rystad Upstream Industry Segment

This column classifies companies according to one of the following 11 categories:

- Major: The six publicly listed oil and gas companies commonly referred to as majors (ExxonMobil, BP, Shell, Chevron, TotalEnergies and Eni)
- NOC: National oil companies
- INOC: National oil companies with substantial international activities
- Integrated: Companies operating in upstream, midstream, and downstream sectors
- Independent: Upstream-oriented companies with production exceeding 50 kboe/day
- E&P company: Upstream-oriented companies with production below 50 kboe/day
- Exploration company: Companies with exploration licenses only
- Industrial: Companies operating across various industry branches
- Investor: Companies investing directly into oil and gas fields
- Operating Company: Companies operating oil and gas assets for third parties
- Supplier: Companies that provide oil field services

PRODUCTION

Column M

Hydrocarbons Production in 2023 (Oil, Gas, Condensate, NGL)

This column contains information on the total amount of fossil hydrocarbons a company produced in 2023. This number is expressed in million barrels of oil equivalent (mmboe) and includes the

production of oil, natural gas, condensate, and natural gas liquids (NGL). GOGEL includes all companies that produced ≥ 20 mmboe in 2023.

Column N

Production Countries

This column allows users to filter companies by countries of production.

UNCONVENTIONALS

Column O

Fracking

This column represents the proportion of a company's hydrocarbons production which stems from resources that can only be extracted through hydraulic fracturing (fracking). Fracking is used to access gas and oil trapped in deep rock formations. Our assessment is based on the following Rystad categories: shale oil, shale gas, tight liquids, and tight gas. Fracking poses severe social and environmental risks as it results in high methane emissions, increases the risk of earthquakes, requires extensive use of water, and requires chemicals which can contaminate groundwater and negatively affect the health of local residents and ecosystems. GOGEL covers all companies that produced ≥ 2 mmboe through hydraulic fracturing in 2023.

Column P

Tar Sands

This column depicts which percentage of a company's hydrocarbons production stems from tar sands. Tar sands contain bitumen – a very dense and viscous form of petroleum – that cannot be pumped like conventional oil. Tar sands are either strip-mined or bitumen is extracted in-situ by means of various different extraction methods. Oil production from tar sands degrades large areas of land, requires excessive amounts of water and energy, and produces enormous amounts of toxic waste. On a lifecycle basis, fuel derived from tar sands generates up to 37% more greenhouse gas emissions than fuel from conventional oil. And spills of tar sands oil cannot be cleaned up with conventional technology. GOGEL covers all companies that produced ≥ 2 mmboe from tar sands in 2023.

Column Q

Coalbed Methane

This column portrays the percentage of coalbed methane (CBM) extraction with regard to the overall hydrocarbons production of a company. CBM is natural gas extracted from underground coal formations, often through fracking. Its production results in methane leaks, lowers groundwater levels, and can lead to contamination of surface water, destruction of ecosystems, and health risks for local populations. GOGEL covers all companies that produced ≥ 2 mmboe of CBM in 2023.

Column R

Extra Heavy Oil

This column depicts which percentage of a company's hydrocarbons production stems from extra heavy oil not derived from tar sands assets (oil with API gravity < 15°). Due to its composition, extraction and upgrading process, extra heavy oil production is very energy-intensive and associated with high levels of emissions. Furthermore, it generates substantial amounts of toxic waste that

burden the environment and pose grave risks to human health. GOGEL covers all companies that produced ≥ 2 mmboe of extra heavy oil in 2023.

Column S

Ultra Deepwater

This column indicates the percentage of hydrocarbons a company produced from offshore wells below 1500 meters. Operating wells in ultra deepwater is extremely hazardous as potential leaks are impossible to contain at such depths and result in disastrous environmental consequences. GOGEL covers all companies that produced ≥ 2 mmboe from ultra deep offshore wells in 2023.

Column T

Arctic

This column provides information on companies producing hydrocarbons from assets in the Arctic. For its assessment, GOGEL uses the geographic definition provided by the Arctic Monitoring & Assessment Programme (AMAP) of the Arctic Council (https://www.amap.no/about/geographical-coverage). Offshore hydrocarbons production in the Arctic is particularly problematic because potential spills cannot be mitigated in cold waters and would have disastrous consequences for fragile Arctic marine and coastal ecosystems. Onshore production has different, but similarly severe consequences for the region, since the ongoing industrialization through new oil and gas developments leads to the fragmentation and degradation of natural habitats. In addition, the exploitation of Arctic fossil fuel resources and the associated black carbon emissions through fossil fuel combustion endanger the region's immense capacity to reflect solar irradiance, which helps to limit climate change (https://www.osti.gov/etdeweb/biblio/1036786). In Arctic Russia, an increasing amount of gas that is extracted onshore will be transported along LNG shipping routes, which have to be kept ice-free by nuclear-powered icebreakers. This leads to more shipping traffic in a region with very sensitive marine ecosystems and thus to an increasing risk of accidents, which are always more devastating in Arctic waters. Furthermore, there are known maintenance issues, especially with regard to Russian pipeline systems. Operating pipeline infrastructure in areas with thawing permafrost poses additional risks. GOGEL covers all companies that produced ≥ 2 mmboe in the Arctic in 2023.

Column U

Unconventional Production

This column depicts the share of a company's unconventional fossil hydrocarbons production in 2023. The provided figure is based on the unconventional categories defined above and presented without overlaps. It, however, also includes Oil Shale (Kerogen). Oil Shale is an extremely emission-intensive hydrocarbon that is currently only produced in Estonia, China, Brazil, Russia and Jordan. Oil Shale production is not presented in a dedicated column because it contributes less than 0.1% to global oil and gas production.

SHORT-TERM EXPANSION

Column V

Resources under Development and Field Evaluation as of September 2024

This metric displays Estimated Ultimate Recovery (EUR) figures associated with assets that were in the two asset life cycle stages that precede production as of September 2024. Assets under field evaluation are assets in which a company has already made considerable investments: A Plan for

Development and Operation (PDO) has been finalized and Front-End Engineering and Design (FEED) has been confirmed. Assets under development are oil & gas assets which will soon enter production, since all necessary permits have been granted and a Final Investment Decision (FID) has been made. This is the most expensive phase during the life cycle of an oil/gas project as it includes the construction of wells and related infrastructure. GOGEL covers all companies that intend to add ≥ 20 mmboe of resources to their production portfolio in the near future. The figures in this column depict economically recoverable hydrocarbons, which a company is extremely likely to add to its production portfolio in the "short term" (approx. 1-7 years depending on the type of asset).

Column W

Expansion Countries

This column allows users to filter companies by the countries in which they have short-term expansion plans.

Column X

Unconventional Expansion

This column indicates the total percentage of unconventional resources in companies' short-term expansion plans. The provided figure is based on the unconventional categories defined above and presented without overlaps. It, however, also includes Oil Shale (Kerogen). Oil Shale is an extremely emission-intensive hydrocarbon that is currently only produced in Estonia, China, Brazil, Russia and Jordan.

Column Y

1,5°C Expansion Overshoot based on IEA NZE (2021/2022)

This column depicts the share of a company's Short-Term Expansion (Column V) which is not aligned with the IEA's original Net Zero by 2050 scenario (NZE), published in 2021 and updated in 2022. For non-shale assets, this Overshoot includes all non-producing assets which were approved for development after December 31, 2021 or are currently in the process of being approved (field evaluation). For shale assets, this Overshoot includes all expansion beyond Drilled but Uncompleted Wells (DUCs).

According to the model assumptions of the NZE scenario (2021/2022), the resources depicted in this column exceed the IEA-modeled oil & gas demand in a 1.5°C world. Therefore, the underlying assets are at risk of becoming stranded and represent severe transition risks.

The IEA's NZE pathway targets a 50% chance to limit the global average surface temperature to 1.5°C. However, the scenario is partially based on very optimistic assumptions. This includes a rapid growth in the utilization of carbon capture and storage solutions and a drastic decrease of the GHG intensity of natural gas production. The IEA's NZE requirements should therefore be considered a minimum standard. For a detailed discussion of the NZE scenario and its implications for the finance sector, please see: "Zeroing In: A guide for the finance sector on the IEA's Net Zero Emissions scenario and its implications for oil and gas finance" Briefing by Oil Change International, the International Institute for Sustainable Development (IISD) and Greenpeace: https://priceofoil.org/2022/02/09/zeroing-in-a-guide-for-the-finance-sector-on-the-ieas-net-zero-emissions-scenario-and-its-implications-for-oil-and-gas-finance/

Please note: The IEA updated its NZE fossil fuel supply pathway in September/October 2023. More information on the 2023 NZE update is available on request.

EXPLORATION

Column Z

Exploration CAPEX 3-year average (2022-2024)

This column provides information on a company's capital expenditure (CAPEX) on exploration activities in USD million. In order to even out significant annual variations, the figure represents the 3-year average (2022-2024) of a company's exploration CAPEX. GOGEL covers all companies with an average exploration CAPEX ≥ USD 10 million. The IEA's NZE scenario does not require any new exploration to cover oil & gas demand in a 1.5°C world. Thus, all expenditure displayed in this column constitutes an overshoot of the NZE scenario, which means underlying assets are at very high risk of becoming stranded and represent severe transition and litigation risks.

Column AA

Exploration Countries

This column allows users to filter companies by country of exploration.

REVENUE ANALYSIS

Column AB

Fossil Fuel Share of Revenue

This column indicates which percentage of a company's total operational revenue is generated from fossil fuel related business activities. All business activities related to the fossil fuel value chain are included in this assessment (upstream, midstream, downstream, power). The figures also include coal-related revenues of oil and gas companies.

Column AC

Data Description

- data unavailable: The company does not have an accessible website and/or does not provide public annual financial reporting documents.
- insufficient reporting: The company does not adequately differentiate between fossil fuel related and fossil fuel unrelated business activities when reporting segment and/or product revenues.
- estimated lower bound interval: The available information allows us to provide an estimated interval. We always take a conservative approach when providing such estimates. The following intervals are used: 0% = 0-10%; 10% = 10-20%; 20% = 20-30%; 30% = 30-50%; 50% = 50-70%; 70% = 70-90%; 90% = 90-100%.
- estimated lower bound: The company's reporting allows us to provide a lower bound fossil fuel share of revenue estimate. Usually, estimated lower bound entries rely on certain conservative assumptions e.g. about a company's segment composition. The company's actual fossil fuel share of revenue is extremely likely to exceed this value.
- exact lower bound: The company's reporting allows us to calculate an exact lower bound fossil fuel share of revenue. The company's actual fossil fuel share of revenue is extremely likely to exceed this value.
- exact number: The company's reporting allows us to calculate an exact fossil fuel share of revenue.

Column AD

Reporting Year

Provides information on the fiscal year to which the fossil fuel share of revenue refers.

REPUTATIONAL RISK PROJECTS

Column AE

Project Names

Oil and gas projects have many adverse effects beyond greenhouse gas emissions. GOGEL provides information on companies' involvement in projects that are so harmful that they pose a reputational risk to their financial backers. This column lists the reputational risk projects a company is involved in.

Column AF

Project Risks

This column lists the reputational risks associated with projects a company is involved in. The reputational risk projects included on GOGEL are assigned to one or more of four predefined reputational risk categories:

- Conflict/Violence: physical violence triggered or exacerbated by oil and gas projects
- Environmental Destruction: environmental impacts beyond greenhouse gas emissions
- Litigation: legal action delays or stops oil and gas projects
- Social Harm: negative social effects on local communities

Column AG

Project Descriptions

Detailed reputational risk project descriptions are available on gogel.org via the links in this column.

FURTHER INFORMATION

Column AH

Remarks

Column AI

GOGEL ID

Column AJ

Upstream Row ID

[Midstream Expansion]

QUICK FILTERS

Column A

Pipeline Expansion (≥ 100 km)

This column indicates if a company meets our Pipeline Expansion threshold (≥ 100 km).

Column B

LNG Expansion (≥ 1 Mtpa)

This column indicates if a company meets our LNG Capacity Expansion threshold (≥ 1 Mtpa).

COMPANY INFORMATION

Column C

Parent Company

The official name of the company. This column includes parent companies and companies without a majority owner.

Column D

Company

This column either provides the name of the company listed in column C (blue cells) or a majority owned subsidiary. All further data points in the row refer to the company listed in column D. GOGEL aims to continuously improve coverage of relevant subsidiaries and special purpose vehicles (SPVs) if they are directly involved in Pipeline or LNG expansion projects and above GOGEL thresholds.

Column E

Type of Subsidiary

This column allows users to filter for majority owned subsidiaries.

Column F

Country of Headquarters

Column G

Primary Business Sectors

Column G corresponds to column J in the [Upstream tab].

Column H

Oil & gas Subsectors

Column H corresponds to column K in the [Upstream tab].

MIDSTREAM INFRASTRUCTURE EXPANSION

Column I

Length of Pipelines under Development

This column provides information on the aggregated prorated length (in km) of all oil, gas, and NGL pipeline projects – proposed and under construction – which a company is involved in. Investments in new pipeline infrastructure increase fossil fuel dependency and often incentivize new hydrocarbon extraction in pipeline proximity. GOGEL covers all companies responsible for ≥ 100 km of pipelines under development.

Column J

Liquefaction Capacity (Export)

This column presents the aggregated prorated annual capacity (in Mt) of liquefaction terminals – proposed and under construction – which a company is involved in.

Column K

Regasification Capacity (Import)

This column presents the aggregated prorated annual capacity (in Mt) of regasification terminals – proposed and under construction – which a company is involved in.

Column L

Total Capacity under Development

This column presents the aggregated prorated annual capacity (in Mt) of LNG terminals – proposed and under construction – which a company is involved in. Investments in new LNG terminals increase dependency on fossil fuels and create incentives to develop new gas extraction. GOGEL covers all companies responsible for ≥ 1 Mt of annual LNG terminal capacity under development.

Column M

LNG Expansion Countries

This column allows users to filter companies by country of LNG expansion.

REVENUE ANALYSIS

Columns N-P correspond to the columns AB-AD in the [Upstream tab].

REPUTATIONAL RISK

Columns Q-S correspond to the columns AE-AG in the [Upstream tab].

FURTHER INFORMATION

Columns T-V correspond to the columns AH-AJ in the [Upstream tab].

[Oil and Gas-Fired Power Expansion]

QUICK FILTERS

Column A

Gas-Fired Power Expansion (≥ 100 MW)

This column indicates if a company meets our gas-fired power expansion threshold (≥ 100 MW).

Column B

Oil-Fired Power Expansion (≥ 100 MW)

This column indicates if a company meets our oil-fired power expansion threshold (≥ 100 MW).

COMPANY INFORMATION

Column C

Parent Company

The official name of the company. This column includes parent companies and companies without a majority owner.

Column D

Company

This column either provides the name of the company listed in column C (blue cells) or a majority owned subsidiary (white cells). All further data points in the row refer to the company listed in column D. GOGEL aims to continuously improve coverage of relevant subsidiaries and special purpose vehicles (SPVs) if they are directly involved in gas-fired power expansion projects and above GOGEL thresholds.

Column E

Type of Subsidiary

This column allows users to filter for majority owned subsidiaries.

Column F

Country of Headquarters

Column G

Primary Business Sectors

Column G corresponds to column J in the [Upstream tab].

Column H

Oil & gas Subsectors

Column H corresponds to the columns K in the [Upstream tab].

POWER CAPACITY EXPANSION

Column I

Gas-Fired Power Capacity Expansion

This column presents the aggregated prorated capacity (in MW) of gas-fired power (GFP) projects – proposed and under construction – which a company is involved in. Similar to new midstream projects, investments in new gas-fired power plants increase dependency on fossil fuels and create incentives to develop new gas extraction. GOGEL covers all companies responsible for ≥ 100 MW of GFP capacity under development.

Column J

Oil-Fired Power Capacity Expansion

This column presents the aggregated prorated capacity (in MW) of oil-fired power (OFP) projects – proposed and under construction – which a company is involved in. Similar to new midstream projects, investments in new oil-fired power plants increase dependency on fossil fuels and create incentives to develop new oil extraction. GOGEL covers all companies responsible for ≥ 100 MW of OFP capacity under development.

Column K

Expansion Countries

This column allows users to filter companies by country of power expansion.

POWER PORTFOLIO ANALYSIS

Column L

Total Installed Fossil Fuel Power Capacity

This column depicts the total installed fossil fuel power capacity a company owns (in MW).

Column M

Countries of Installed Fossil Fuel Capacity

This column allows users to filter companies by country of installed fossil fuel-fired power generation capacity.

Column N

Fossil Fuel Share of Power Production

This column presents a company's fossil fuel-fired share of power production.

Column O

Share of Power Production based on generation/capacity

This column identifies whether the share of fossil fuel-fired power production was calculated based on generation or capacity figures.

REVENUE ANALYSIS

Columns P-R correspond to the columns AB-AD in the [Upstream tab].

REPUTATIONAL RISK

Columns S-U correspond to the columns AE-AG in the [Upstream tab].

FURTHER INFORMATION

Column V

Remarks

Column W

GOGEL ID

Column X

Power Row ID