

GASLIGHTING:

Financing fossil gas power is leading Europe's energy transition astray





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Copy editor:

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Jordan Jeandon

Hele Oakley

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Peer reviewers:

Sarah Brown, Ember Sonja Meister, Urgewald

Brigitte Alarcon, Beyond Fossil Fuels

Antonio Tricarico, ReCommon

Anna-Lena Rebaud, Friends of the Earth

Brian Schubiner, WWF European Policy Office

Author:

Claire Maraval

Energy analyst: Henri Her

Financial analyst: Ryan Cooper

Contributors:

Clément Faul Andréa Hernandez Julie Lassus Maude Lentilhac Lucie Pinson Fanny Schoen

Published by:











Endorsed by:







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EXECUTIVE SUMMARY

Decarbonising electricity production by 2035 in Europe is a crucial lever for limiting global warming to 1.5°C. While half of Europe's coal plants have been retired or are scheduled to be dismantled by 2030, there is still a long way to go in terms of fossil fuel phase-out in the power sector. Not counting the projects currently under development, 217 GW of gas plants must be phased out within that time frame. But over the past four years, financial institutions have acted against this transition, pouring hundreds of billions into companies responsible for Europe's operational gas fleet and its expansion.

Since 2019, banks have supported the European gas power industry and its development by over US\$314 billion. Led by La Caixa Group, BNP Paribas, and Mitsubishi UFJ Financial in terms of financial services, these banks overwhelmingly have no policy regarding gas power. Only three of the 25 most involved banks apply some form of restrictions to the sector - and even then these are too weak to stop expansion and support gas phase out.

As of November 2022, investors held US\$200 billion in Europe's main gas power producers and developers through publicly listed debt and equity. Major investors include BlackRock, Government Pension Fund Global and Vanguard. Similar to banks, investors are severely lacking gas power sector policies, with only two of the top 25 investor supports having any type of policy.

Barring swift action by financial institutions to radically restrict their financial services to gas power in Europe, they could contribute to the development of more than 63 GW of additional gas power capacity. Unless these assets are closed before the end of their lifetime - which would dramatically increase the level of stranded assets by 2035 - they will create massive carbon lock-in in Europe, placing a 1.5°C trajectory out of reach.

Financial institutions now face a choice: either go along with this hazardous expansion and pursue a financing strategy that intensifies the climate crisis, or assume a leading role in the European electricity transition by drastically reducing gas power financing and pushing the gas power industry to shut down fossil fuel infrastructure and switch to renewable energy.

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KEY RECOMMENDATIONS

Reclaim Finance calls on financial institutions to:

- End all support to new gas plants of gas power producers and developers that don't have a gas exit plan by 2035 in Europe.
- No new financial services for gas power producers that do not:
 - Plan the end of their investment(s) in new gas projects;
 - Adopt a net zero by 2050 objective in alignment with a 1.5°C scenario;
 - Adhere to a fixed date for phasing out the use of gas.
- Commit to phase out gas exposure and end all financial services to gas power by 2035 in Europe.
- Actively engage gas power producers and developers to push them to:
 - Commit not to develop new gas plants.
 - Commit to a net zero by 2050 objective aligned with a 1.5°C scenario.
 - Commit to bringing fossil gas-related activities close to zero by 2035 at the latest in European countries.
 - Pledge that by 2030, for each dollar of capex investment spent in the fossil fuel-fired power sector, at least four dollars will be invested in sustainable power. This ratio increases to 1:9 if it includes production, storage, transport and energy efficiency measures.
 - Adopt a comprehensive climate transition plan that allows investors to assess their alignment with a 1.5°C scenario.
 - Commit to submit the above-mentioned plan and an assessment of ongoing implementation to an annual vote ("Say on Climate") at AGM, in the case of publicly listed companies.

METHODOLOGY

In this research, data related to energy and finance were collected using a definition of Europe covering the 27 European Union Member States as well as Albania, the Isle of Man, Moldova, Montenegro, North Macedonia, Norway, Serbia, Switzerland, Turkey, Ukraine and the United Kingdom.

Energy analysis

This research covers 51 companies that were selected for their production and development gas power portfolio in Europe. To assess the portfolio capacity of these companies, the Global Energy Monitor database was used. Its Global Gas Plant Tracker⁵ was retrieved in July 2022. The latter version is the working version of this research: it is therefore the reflection of the gas power situation as of July 2022 according to the Global Energy Monitor.⁶ As only gas power plants were considered for this report, the term "capacity" refers only to power generation capacity (and not storage capacity, for example). Only non-captive capacity, which is fully dedicated to

providing electricity for use primarily by the public, was considered from this database. Captive plants, which are used and operated by an industrial or commercial energy user for its own power consumption and may operate off-grid, were not considered.

Based on this dataset, the following have been selected:

- Companies that are referenced as Utilities by the Bloomberg Industry Classification Standard (BICS), and that have more than 750 MW of gas power capacity in operation.
- Companies with more than 300 MW of gas power under development, i.e. that have an aggregated capacity of gas power at the pre-construction and construction stages of more than 300 MW.

The top 10 companies by non-captive gas capacity in operation and the top 5 companies by non-captive gas capacity under construction, headquartered in the EU, were

contacted to verify the energy data for this work.

Financial analysis

Financial research was conducted by the independent research organisation Profundo B.V.⁷ This research used financial databases (Bloomberg, Refinitiv and IJGlobal). Corporate loans, credit and underwriting facilities provided to the selected companies were researched for the period 2019-2022 (November). Investments in bonds and shares of the selected companies were identified through Refinitiv, Thomson EMAXX and Bloomberg at the most recently available filing date in November 2022. Instruments where the entire use of proceeds is dedicated to «green» bonds or loans have been removed. Sustainably linked instruments, however, remain in scope.

For more detailed explanations on the financial research used in this report, please refer to Profundo's methodology document.

The financial institutions explicitly mentioned in the report have been contacted by Reclaim Finance and were given the possibility of accessing and reviewing the financial data that concerned them before publication of

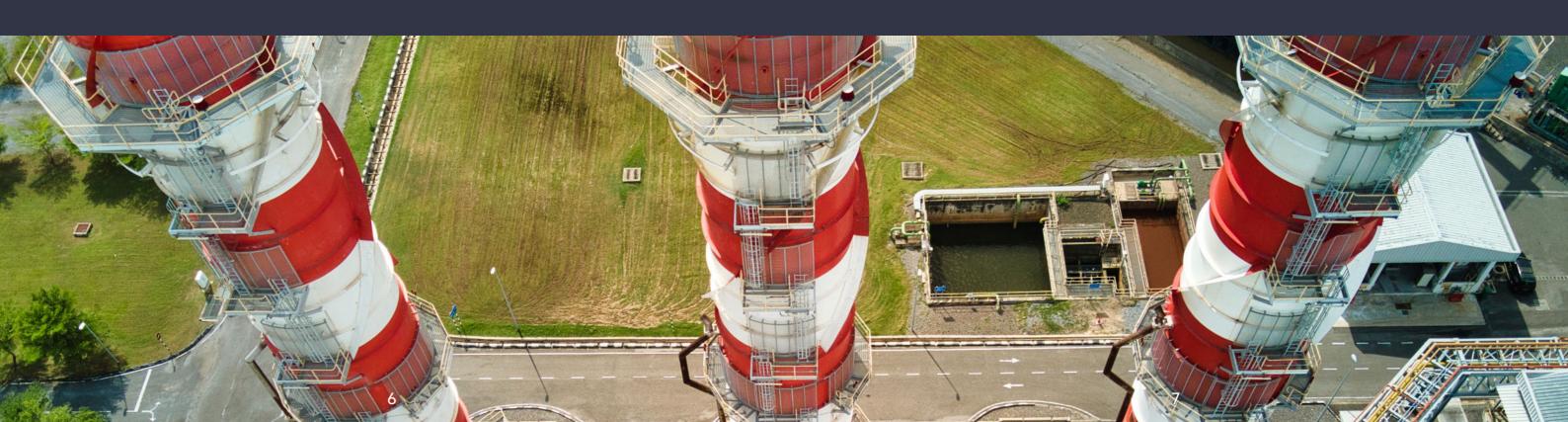
the report. The consultation period was over the month of March 2023.

Policy analysis

The gas power policies of the top 25 banks and top 25 investors most exposed to utilities producing electricity from gas in Europe (capacity > 750 MW) and to gas power developers in Europe (capacity > 300 MW) were evaluated in this report. The focus of this report is gas power expansion, i.e. how these policies consider gas-fired power plants projects and companies involved in gas power expansion. Both engagement strategies and financing restrictions were considered, while enhanced due diligences were not included in this report (due diligence assessment criteria are usually not public or too vague).

For power decarbonization targets, Reclaim Finance relied on <u>Banktrack's NZBA banks</u> compliance tracker data.

Financial institutions explicitly mentioned in the report have been contacted by Reclaim Finance in order to ask questions related to existing policies and to make sure we did not miss any commitment. The consultation period was over the months of February and March 2023.



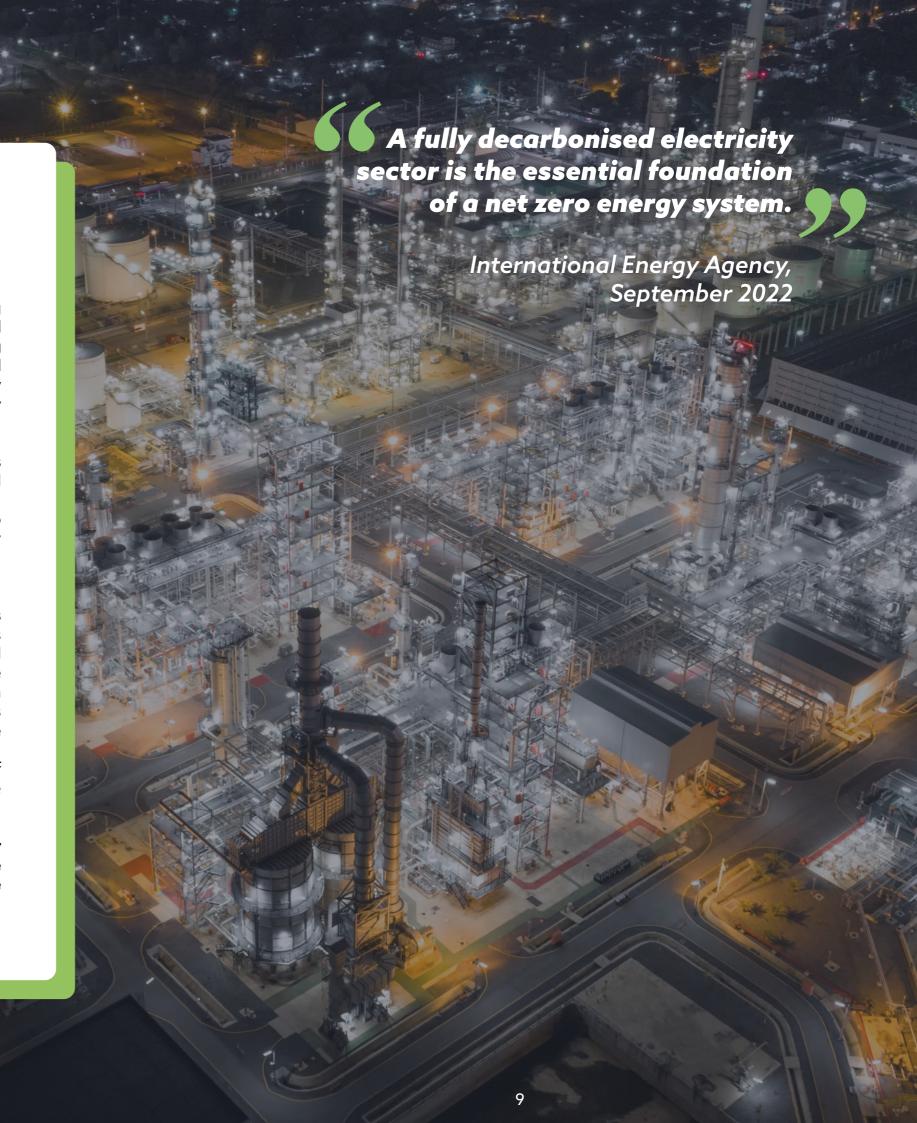
INTRODUCTION

The decarbonization of electricity production is a crucial lever for limiting global warming to 1.5°C. Firstly, because increased electrification will have an impact on other fossil fuel consuming sectors - from heating to transport and industry - and will enable a drastic reduction in fossil fuel demand. Secondly, because the solutions to decarbonize electricity already exist, are based on reliable technologies, and can be rapidly deployed on a massive scale.

Accordingly, in the International Energy Agency's (IEA) Net Zero Emissions by 2050 Scenario (NZE), "electricity becomes the new linchpin of the global energy system", paving the way for the decarbonization of transport, industry and buildings.¹ To achieve this, and in order to limit warming to 1.5°C, global electricity production must be completely decarbonized by 2040. European and OECD countries have a responsibility to lead the way, by building carbon-neutral power systems by 2035.

Europe has passed a tipping point in its transition. Its electricity system is still heavily dependent on fossil fuels - which generated 44.7% of Europe's electricity in 2022,² but the tide has turned. Europe is on track to exit coal power by 2030, and the next step is to phase out gas by 2035. In order to take this crucial step, support for new gas plants must be radically withdrawn - financially and politically. European gas power capacity already amounts to 217 GW,³ and almost none of the electricity producing companies active in Europe have adopted a gas phase-out plan - whether for 2035 or later. Worse, more than 80 companies - both electric utilities and other types of companies - are planning new gas plant projects, threatening to increase Europe's gas power capacity by 29%.⁴

Just as financial actors play a key role in enabling the coal phase-out, their contribution to the gas exit will be critical. Financial institutions must be committed to accompany Europe in its electricity transition, and enable the world to limit global warming to 1.5°C.



URGENT NEED TO SUPPORT THE TRANSITION OF EUROPEAN POWER

The decarbonization of electricity is a critical step in the energy transition, and will have a ripple effect across multiple sectors such as transport, industry and buildings. Fossil gas has long been touted as a «transitional» fuel towards their climate goals for economies that rely on coal for their electricity needs, as it emits less carbon dioxide than coal, fits in a similar centralised infrastructure, and gas-fired power plants take only a few years to build. This perspective is increasingly challenged by scientific evidence and even by conservative institutions such as the IEA. More and more European governments are making commitments to entirely decarbonize their electricity mix by 2035, but the road ahead remains bumpy. Financial institutions, if they are to meet their climate pledges, must support the transition of the European electricity sector and integrate it into their practices and commitments.

a. Moving beyond coal phase-out

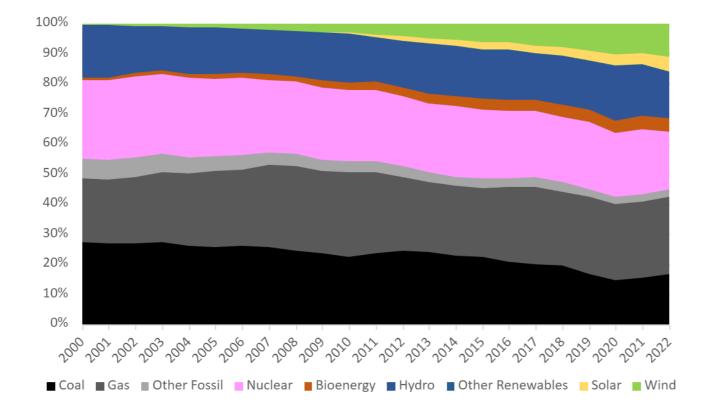
Since the 2016 Paris Agreement, Europe is moving away from coal, with a reduction of more than 20% in coal electricity generation between 2016 and 2022.8 Over the same timeframe, renewable energy generation increased by 118% and more than filled the gap created by coal generation reduction. Although significant regional disparities remain, more than half of the coal plant fleet has been retired since 2016 or is scheduled to retire before 2030.10 Financial actors have played a role in this exit from coal through the adoption of sectoral policies. As of the beginning of 2023, 230 financial institutions had coal policies with various levels of

exclusion - of which only 26 had adopted robust exclusion commitments.¹¹

The adoption of power sector policies by financial actors is almost exclusively confined to coal, failing to address other sources of electricity generation. The gas sector - and more specifically gas power - has remained largely unchallenged by financial institutions' engagement and exclusion policies.

Two-thirds of the 369 institutions screened by the Oil and Gas Policy Tracker do not have oil and gas policies - and existing policies often only address oil or, at best, only the extraction of fossil gas. ¹² To support the decarbonization of European power, financial players' policies must expand to tackle the main source of electricity production in Europe: fossil gas.

Figure 1: Europe's electricity generation by source9



b. The next frontier: beyond gas power

The operational fleet of non-captive gas plants in Europe currently amounts to 217 GW. In addition to this significant existing capacity, more than 63 GW are currently under development, of which 11.4 GW are already under construction. On top of this, there are also pre-construction plans - projects that are actively seeking governmental approvals, land rights or financing - totalling a staggering 52 GW based on the July 2022 Global Energy Monitor inventory.¹³

These developments represent an evident risk of stranded assets, as these plants will have to be retired - or at least put into reserve - by 2035 to align with a 1.5°C trajectory with no or limited overshoot and no significant reliance on offsets.¹⁴ As a case in point, the IEA NZE Scenario requires a 22% decline in gas use in the global power sector from 2021 levels by 2030 and a 93% decline by 2040, making it the fastest declining sector for gas use. 15 Beyond these scenarios, the risk of stranded assets is a reality in Europe, as several countries are making ambitious commitments to move away from gas by 2030 or 2035. Portugal, the Netherlands, Denmark, Estonia and Austria have committed to producing 100% of their electricity from renewable energy by 2030, while Germany, Greece and Ireland are aiming for 80%.16 Taken together, these countries currently have more than 51 GW of

operational gas plants and accumulated an

extra 15 GW of additional developments in

July 2022, according to Global Energy Monitor.

This figure does not include some of the

latest announcements, such as Germany's,

that total 21 GW of new capacity.¹⁷ At the EU

level, the latest policies show that the share

of electricity from renewables is expected to reach 63% in 2030, while the REPowerEU plan aims for a 69% target.¹⁸ This raises the prospect of a serious risk of stranded assets in the medium term, with many power plants yet to be built or commissioned facing a quick retirement to meet national and European electricity decarbonization regulations and targets.

Many utilities and other companies involved in power generation in Europe - such as oil and gas majors and traders - are not aligned with either these national objectives or with the overall necessity of decarbonizing electricity production by 2035. Virtually none have a gas phase-out target, with the exception of Enel (2040) and PGE (2042), and not a single one has set a clear 2035 deadline for gas phase-out.19 German utility Uniper has announced that its electricity production will be decarbonized by 2035 in Europe, 20 by its gas plants to biomethane and green hydrogen - the German utility is for instance aiming to produce 1 GW of green hydrogen by 2030.21 On the contrary, more than 80 companies are engaged in gas development plans in Europe - 28 of which are developing above 300 MW of new capacity.

c. Gas power generates major GHG emissions

The European taxonomy for sustainable activities states that certain types of gas plants can be considered a «transitional» investment until 2030 if they meet certain criteria.²² This is a misleading label however, which must not be used by financial institutions to justify their support for gas power. Concretely, fossil gas power is the only energy allowed to exceed the 100 gCO2e/kWh threshold set



by the taxonomy, meaning that "taxonomy-aligned" gas plants could be 16 to 38 times more greenhouse gas (GHG) intensive than European wind power.²³ Furthermore, as the capital costs of a gas plant take at least 10 years to be amortized, with a plant²⁴ typically running for more than 20 years,²⁵ such new gas plants would be running well after 2035, the date by which the EU should have a carbon neutral power sector, according to the IEA.

The taxonomy has been heavily influenced by the gas industry, including several European power utilities²⁶ and Russian companies, like Gazprom or Lukoil.²⁷ Despite the massive opposition - including from the EU's own sustainable finance expert group - the decision on whether or not to include gas plants was based on industry influenced political considerations strongly, rather than on scientific considerations.

With the inclusion of fossil gas, the taxonomy has lost much credibility and has been condemned as «unacceptable institutional greenwashing» by the European Consumers' Association (BEUC).²⁸ Beyond the NGO community, the inclusion of gas has also been criticised by private finance representatives, such as the Institutional Investors Group on Climate Change (IIGCC).²⁹

Beyond the debate around the taxonomy, fossil gas is a major climate concern, and private finance must address the issue along the entire supply chain - from extraction to end use.

While the gas industry portrays gas plants as a transitional necessity on the road to a decarbonized electricity system and, in particular, as a preferred alternative to coal plants, this favourable comparison is solely based on a plant-by-plant analysis.³⁰ Yet, despite emitting around 50% fewer CO2 emissions than a coal plant,³¹ significant CO2 emissions are still generated by the combustion of fossil gas in thermal power plants. In 2020, gas power stations emitted more than lignite power plants in Europe, becoming the main source of CO2 emissions for the European electricity sector.³² The contribution of gas power to climate change

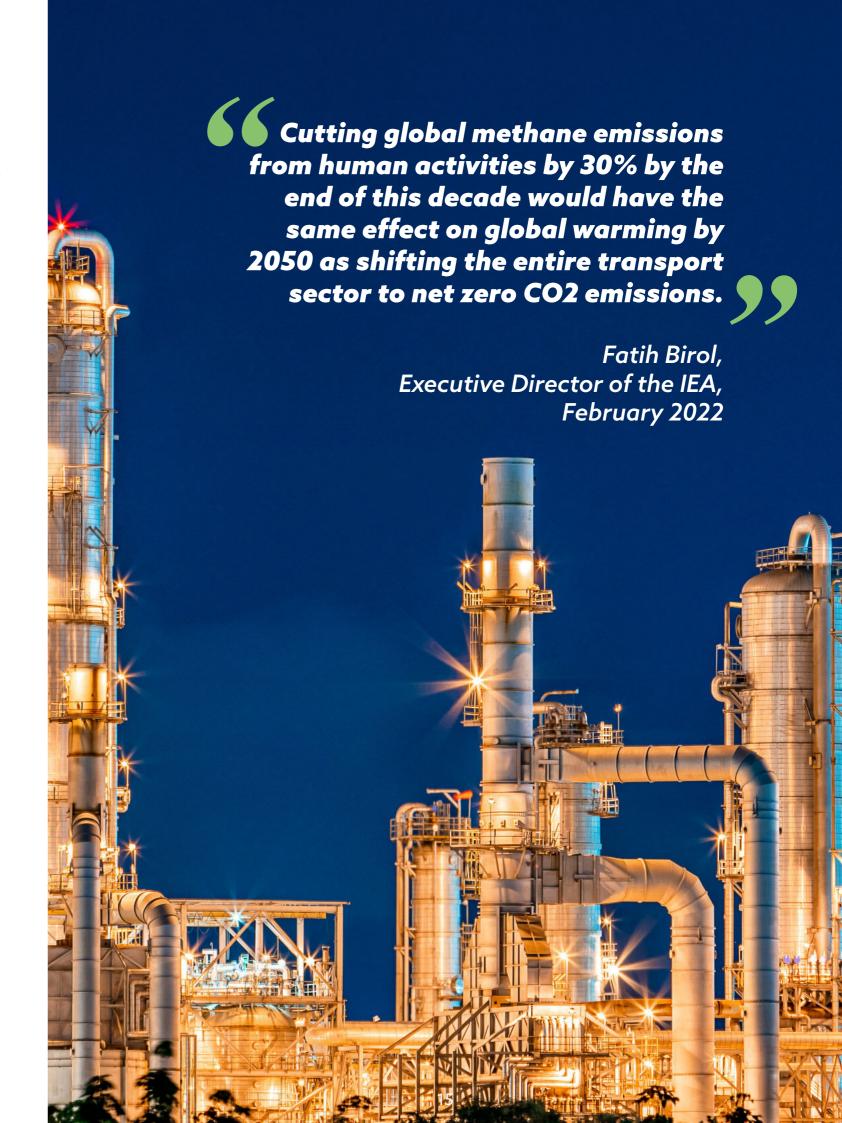
has been underlined by the IPCC, which stated in its latest report that the cancelling of projects and the closure of both unabated coal and gas plants is necessary to limit global warming to 1.5°C, or even 2°C.³³

Moreover, gas-fired power generation is a pivotal issue, as it drives demand for fossil gas, and emits both CO2 and methane throughout its supply chain.

As a greenhouse gas, methane is 86 times more damaging than CO2 over a 20 year period,³⁴ but, unlike CO2 which remains in the atmosphere for centuries, methane decomposes rapidly within a decade.³⁵ Reducing methane emissions is therefore one of the most effective ways to limit global warming: methane emissions could fall quickly, and would no longer be present in the atmosphere in a few decades. Accordingly, the IEA NZE Scenario features a fall of about 75% of methane emissions from fossil fuel operation between 2020 and 2030.³⁶

Although methane is responsible for 30% of the rise in global temperatures since the industrial revolution,³⁷ its contribution to global warming has been less documented than that of CO2, and the leakage of methane from the fossil gas supply chain has been undervalued.³⁸ According to the IEA, the energy sector's methane emissions were 70% greaterthan reported by national governments in 2021.³⁹ This partly explains why fossil gas has enjoyed a long and misleading reputation as a «transition» or "bridge" fuel, which is still widely promoted and conveyed by the gas industry.

Evidence is emerging that when the entire gas supply chain is taken into account, gas-fired and coal-fired electricity have much closer greenhouse gas (GHG) emissions.⁴⁰ This is mainly due to methane leaks, the primary component of gas. If more than 4% of fossil gas - or methane - leaks, using it for electricity generation will prove more harmful to the climate over a 20 year time frame than coal.⁴¹ Depending on the source of the gas burned by the power plants, the comparison can be even more unfavourable to gas. In Europe, gas sources are especially harmful to the climate,



with increasing imports of liquefied natural gas (LNG) - largely US shale gas.⁴²

Methane leaks occur regularly and frequently exceed the 4% threshold. In the United States, the Environmental Protection Agency (EPA) estimates that 1.4% of all natural gas produced in the country escapes into the atmosphere, but a recent study measured a rate closer to 9% in the Permian basin, a hotspot of fracked gas production. Although the authors caution that this study covers a specific period of time - extending over 16 months - it echoes previous satellite-based research with similar results. Europe is no exception, with recurrent methane leaks from its gas infrastructures being reported.

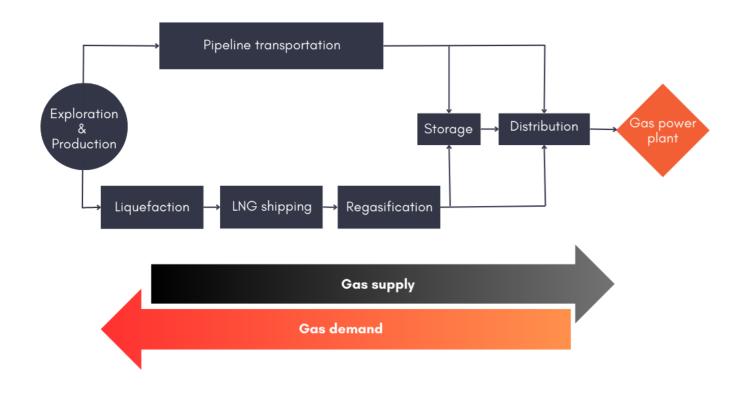
Exiting from gas for electricity production - which, together with heat generation, accounted for over 30% of gas consumption in the EU⁴⁵ - is one of the key levers for reducing fossil gas demand, and thereby minimising the leakage of methane to the atmosphere.

d. A turning point for gas power

During 2022, the European dependence on fossil gas was stressed by Russia's war in Ukraine. The subsequent drop in Russian gas deliveries to Europe - which represented around 45% of the EU total gas imports in 202146 - resulted in a major energy crisis. Electricity - and heating - prices have surged to unprecedented levels since, driven by the high and volatile prices of the fossil gas flows that Europe has sought to secure. In the third quarter of 2022, the European power benchmark averaged EUR€ 339 /MWh, an increase of 222% compared to the same period the previous year.47 This has had a strong impact on inflation and has contributed to a growing cost of living crisis.

Europe's heavy dependence on gas, in part as a source of electricity, has exposed the region to these major risks. Since the beginning of 2022, gas imports have been secured at all costs, which has meant importing increasingly

Figure 2: Gas plant supply chain



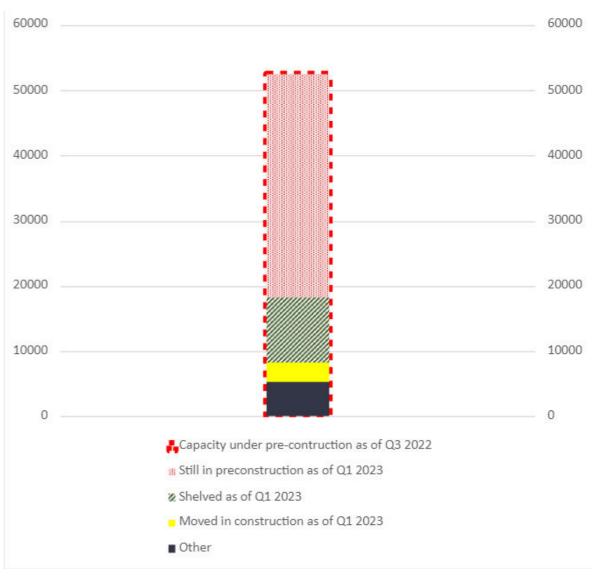
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expensive and dirty gas-mostly US shale gas.⁴⁸ In its latest World Energy Outlook report, the IEA highlighted that "today's energy shock is a reminder of the fragility and unsustainability of our current energy system",⁴⁹ adding that "one of the effects of Russia's actions is that the era of rapid growth in natural gas demand draws to a close."

The analysis of the evolution of Global Energy Monitor's Global Gas Plant Tracker database between its July 2022 version, used for this report, and its most recent February 2023 version, confirms that the economic and geopolitical situation has had an impact on the status of gas plant projects in Europe. While 11% of projects listed as under construction

went into operation by February 2023, 9% were downgraded to pre-construction status. With regard to the projects previously indicated as pre-construction, only 71% remained at this stage or entered construction. Indeed 19% went on to a «shelved» course. This may be due partly to the increasing uncertainty surrounding gas supplies in Europe and its particularly high and volatile prices. While this may suggest a decline in the realisation of new infrastructures, shelved projects cannot be set aside, as they represent projects that can resume their course guickly, depending on the inflections linked to the economic context gas prices or geopolitical situation for example)50 or the strategies of the companies developing them.

Figure 3: Evolution of gas power projects at the preconstruction stage between Q3 2022 and Q1 2023



POWERING UP GAS POWER IN EUROPE

If Europe is to stay on a 1.5°C trajectory, fossil gas must be phased out of its power system by 2035 and new gas plant projects abandoned. Financial institutions must enable this exit from fossil gas, which will require a radical transformation from the financial support provided for the last four years. Indeed, between 2019 and 2022, financial support for gas power in Europe has been massive, going instinctively and unconditionally both for utilities operating power plants and lacking a gas phase-out plan and for companies developing new ones.

a. Fueling the companies responsible for the existing gas power and its expansion

The scope of this research covers 51 companies, of which 41 are utilities under the BICS classification, and 10 are non utilities developing gas plants in Europe. Eighteen utilities are also currently preconstructing or constructing gas plants, bringing the total of gas power developers analysed in this report to 28. Taken together, these companies cover over 78% of current gas power developments in Europe as well as 78% of current operational gas power capacities in the region.

Between 2019 to 2022 banks provided over US\$314 billion to companies in this report.

The five most heavily-backed companies include Enel (US\$61 billion), Vitol SA (US\$42 billion), Mitsubishi Corp (US\$25 billion), RWE AG (US\$25 billion) and Engie (US\$21 billion). Put together, they represent more than 55% of total banking support over the period. The top 3 gas power producers in Europe - Enel, Engie and RWE - harvest over a third (34%) of banking support.

As of November 2022, US\$200 billion were invested in these 51 companies. The most supported companies include some top operators, such as Iberdrola (US\$32 billion), Enel (US\$29 billion) and Naturgy Energy Group SA (US\$20 billion).



Figure 4: Rankings of gas power producers and developers in terms of capacities

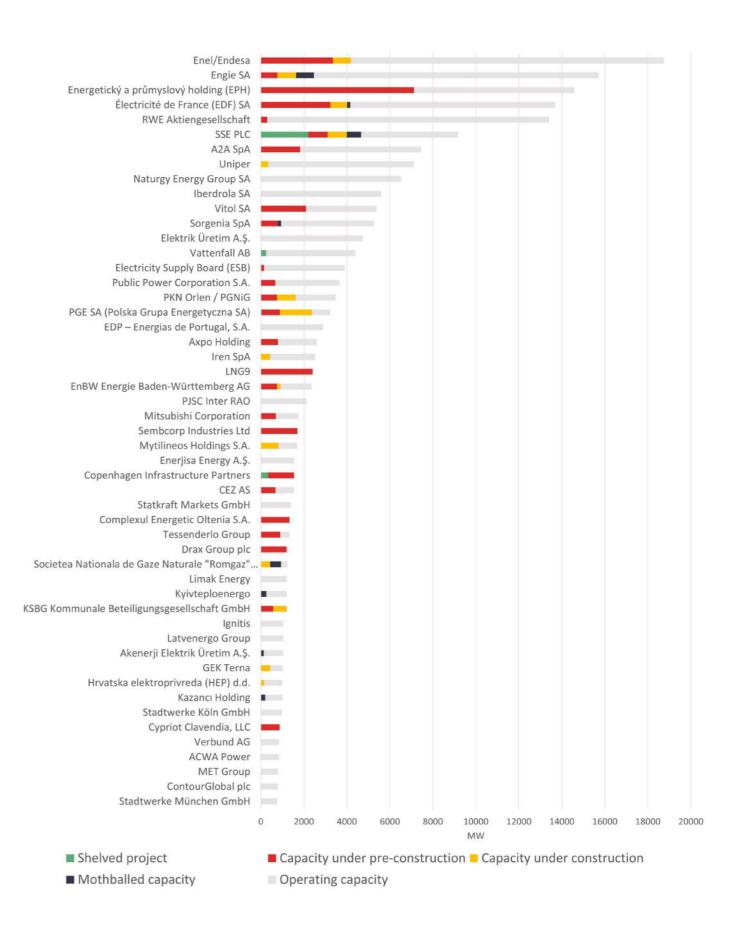


Table 1: Gas power producers and developers matched with financial support

Company	Туре	Operator Ranking	Developer Ranking	Creditor support (US\$ mln)	Investor support (US\$ mln)	Top three Banks	Top three Investors
Energeticky a prumyslovy holding a.s. (EPH)	Dev & Utility	1	5	1,577		UniCredit, Société Générale, ING Group	
Enel SpA	Dev & Utility	2	1	61,46	29,384	BNP Paribas, Banco Bilbao Vizcaya Argentaria (BBVA), Goldman Sachs	BlackRock, Capital Group, Government Pension Fund Global
Electricite de France SA	Dev & Utility	3	4	19,221	11,012	Crédit Agricole, BNP Paribas, Société Générale	BlackRock, Schroders, Abrdn
LNG-9 PTE. LTD.	Dev	4					
PGE Polska Grupa Energetyczna SA	Dev & Utility	5	32	1,224	295	PKO Bank Polski, PZU Group, BNP Paribas	UNIQA, BlackRock, PKO Bank Polski
Vitol SA	Dev	6		41,591		La Caixa Group, SMBC Group, Société Générale	
A2A SpA	Dev & Utility	7	8	5,029	653	Goldman Sachs, BNP Paribas, UniCredit	Algemeen Burgerlijk Pensioenfonds (ABP), Government Pension Fund Global, Dimensional Fund Advisors
SSE PLC	Dev & Utility	8	11	6,841	15,541	NatWest, Barclays, Royal Bank of Canada	BlackRock, Barclays, Capital Group
Sembcorp Industries Ltd	Dev	9		3,159	2,144	DBS, Oversea-Chinese Banking Corporation, United Overseas Bank	Temasek, Vanguard, Lazard
Engie SA	Dev & Utility	10	2	20,801	12,803	Société Générale, Crédit Agricole, BNP Paribas	BlackRock, Capital Group, Caisse des Dépôts et Consignations
Polski Koncern Naftowy ORLEN SA	Dev	11		4,454	2,434	PKO Bank Polski, Bank Gospodarstwa Krajowego, Santander	NN Group, Aviva, UNIQA
Complexul Energetic Oltenia SA	Dev	12					
Copenhagen Infrastructure Partners K/S	Dev	13					
STEAG GmbH	Dev	14		82		HSBC, BayernLB	
Drax Group PLC	Dev	15		851	3,009	Royal Bank of Canada, Deutsche Bank, Bank of America	Invesco, Schroders, BlackRock
EnBW Energie Baden- Wuerttemberg AG	Dev & Utility	16	21	8,295	435	BNP Paribas, UniCredit, Commerzbank	Algemeen Burgerlijk Pensioenfonds (ABP), Vanguard, Bedrijfstakpensioenfonds voor de Bouwnijverheid (BpfBOUW)
Tessenderlo Group Inc	Dev	17		238	167	KBC Group	Dimensional Fund Advisors, Carmignac Gestion, Government Pension Fund Global
Clavenia Limited	Dev	18					
Mytilineos SA	Dev & Utility	19	29	780	374	European Investment Bank, JPMorgan Chase, HSBC	Vanguard, Government Pension Fund Global, Fidelity Investments
Axpo Holding AG	Dev & Utility	20	19	7,514	205	Zürcher Kantonalbank, UBS, UniCredit	Credit Suisse, UBS, Zürcher Kantonalbank
Sorgenia SpA	Dev & Utility	21	12	928		Intesa Sanpaolo, Mediobanca Banca di Credito Finanziario, ING Group	
Mitsubishi Corp	Dev	22		25,296	15,561	Mitsubishi UFJ Financial, Citigroup, Mizuho Financial	Meiji Yasuda Life Insurance, Tokio Marine, Nomura
CEZ AS	Dev & Utility	23	31	1,499	1,055	Citigroup, Barclays, Deutsche Bank	Vanguard, BlackRock, Conseq Investment Management
Public Power Corp SA	Dev & Utility	24	15	2,917	1,252	Goldman Sachs, Citigroup, European Investment Bank	Hellenic Corporation of Assets and Participations, CVC Capital Partners Group, Helikon Investments
	22						22

GEK Terna Holding Real Estate Construction SA	Dev	25		900	119	Optima Bank, National Bank of Greece, Piraeus Bank	Helikon Investments, Government Pension Fund Global, Alpha Bank
Iren SpA	Dev & Utility	26	18	2,700	1,071	UniCredit, Intesa Sanpaolo, Goldman Sachs	Finanziaria Sviluppo Utilities, Anima, Crédit Agricole
Societatea Nationala de Gaze Naturale ROMGAZ SA	Dev	26			227		Goldman Sachs, Affiliated Managers Group, Conseq Investment Management
Uniper SE	Dev & Utility	28	6	12,029		KfW, Landesbank Baden-Württemberg (LBBW)	
RWE AG	Utility		3	24,785	12,343	Barclays, Bank of America, Goldman Sachs	BlackRock, Crédit Agricole, Pictet
Naturgy Energy Group SA	Utility		7	8,75	19,502	Banco Bilbao Vizcaya Argentaria (BBVA), La Caixa Group, Santander	La Caixa Group, CVC Capital Partners Group, Global Infrastructure Partners
Iberdrola SA	Utility		9	20,416	32,413	Santander, European Investment Bank, Banco Bilbao Vizcaya Argentaria (BBVA)	Qatar Investment Authority, BlackRock, Government Pension Fund Global
Elektrik Uretim AS	Utility		10				
Vattenfall AB	Utility		13	7,708	354	BNP Paribas, Société Générale, ING Group	BlackRock, Pensioenfonds Metaal en Techniek (PMT), Fjärde AP-Fonden (AP-4)
Electricity Supply Board	Utility		14	4,611	51	JPMorgan Chase, Société Générale, Banco Bilbao Vizcaya Argentaria (BBVA)	Algemeen Burgerlijk Pensioenfonds (ABP), Bedrijfstakpensioenfonds voor de Bouwnijverheid (BpfBOUW), Pensioenfonds Detailhandel
EDP - Energias de Portugal SA	Utility		16	5,106	10,352		BlackRock, CPP Investment Board, Crédit Agricole
Inter RAO UES PJSC	Utility		17		288		Government Pension Fund Global, BlackRock, Vanguard
Enerjisa Enerji Uretim AS	Utility		20	2,072	2	Akbank, Banco Bilbao Vizcaya Argentaria (BBVA), Isbank	California State Teachers' Retirement System (CalSTRS), Government Pension Investment Fund (GPIF), Pensioenfonds Zorg en Welzijn (PFZW)
Statkraft Markets GmbH	Utility		22	1,438		SMBC Group, Barclays, Svenska Handelsbanken	
Limak Enerji Ticareti AS	Utility		23	725		Emirates NBD, Turkiye Sinai Kalkinma Bankasi, Turkiye Halk Bankasi	
Ignitis Grupe AB	Utility		24	990	30	JPMorgan Chase, European Investment Bank, Swedbank	Deka Group, MassMutual Holdings, Bank Gutmann
Latvenergo AS	Utility		25	268		Luminor Bank, Swedbank, OP Financial Group	
Stadtwerke Koeln GmbH	Utility		26	829		Norddeutsche Landesbank, ING Group	
KyivTeploEnergo	Utility		27	166		European Bank for Reconstruction and Development	
Akenerji Elektrik Uretim AS	Utility		28				
Hrvatska Elektroprivreda DD	Utility		30		7		Algemeen Burgerlijk Pensioenfonds (ABP), PensionDanmark, PenSam
Verbund AG	Utility		33	1,517	1,956	UniCredit, Raiffeisen Banking Group, Commerzbank	BlackRock, Government Pension Fund Global, Crédit Agricole
ACWA Power Co	Utility		34	1,499	23,122	National Commercial Bank, HSBC, Citigroup	Public Investment Fund, Vision Invest, Vanguard
Kazanci Holding AS	Utility		35				
MET Holding AG	Utility		36	3,314		Nongovernmental Pension Fund GAZFOND, ING Group, OTP Bank Group	
ContourGlobal PLC	Utility		37		1,477		Reservoir Capital, Fidelity International, Vanguard
Stadtwerke Muenchen GmbH	Utility		38	565		UniCredit, Skandinaviska Enskilda Banken, HSBC	



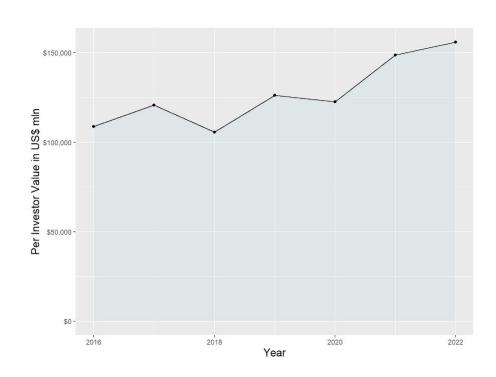
b. Top banks supporting gas power

Since 2016, financing to utilities responsible for the operational fleet of gas power plants in Europe and to gas power developers of all kinds has grown steadily. Over the last four years, 61% of this bank support has been in the form of loans, 39% in the form of underwriting. According to the financial research done for this report, only 1.5% of this

financing is pure and mixed project financing - only 0.4% is pure project financing where 100% of the use of proceeds is earmarked for a specific project. The overwhelming majority of financing is therefore at the corporate level.

The top five private banks supporting the European gas power sector - La Caixa Group, BNP Paribas, Mitsubishi UFJ Financial, Citigroup and BBVA - represent more than 22% of total banking support to the sector from 2019 to 2022.

Figure 5: Evolution of banking support for gas power between 2016 and 2022



26

Figure 6: Total banking services by headquarters country of financial institutions 2019 - nov 2022

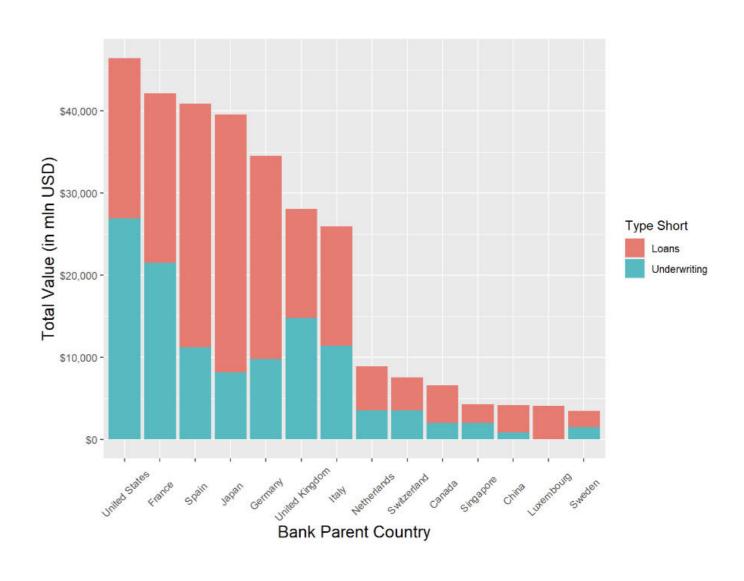


Table 2: Rankings of banking support to gas power producers and developers in Europe from 2019 to 2022

Rank	Bank	Gas power policy?	Total financing provided in (US\$ mn)	Companies Financed	Top 3 companies financed
1	La Caixa Group	Yes	17,467	11	Vitol, Enel SpA, Naturgy Energy Group SA
2	BNP Paribas	No	14,287	20	Enel SpA, Electricite de France SA, Engie SA
3	Mitsubishi UFJ Financial	No	13,106	15	Mitsubishi Corporation, Enel SpA, Vitol
4	Citigroup	No	12,858	21	Mitsubishi Corporation, Enel SpA, Iberdrola SA
5	KfW	No	12,049	3	Uniper SE, Vitol, EnBW Energie Baden Wuerttemberg AG
6	Banco Bilbao Vizcaya Argentaria (BBVA)	No	11,965	16	Enel SpA, Iberdrola SA, Naturgy Energy Group SA
7	UniCredit	No	11,790	17	Enel SpA, Iberdrola SA, Vitol
8	Société Générale	Yes	10,752	17	Enel SpA, Engie SA, Electricite de France SA
9	JPMorgan Chase	No	9,796	17	Enel SpA, Vitol, Rwe Ag
10	Crédit Agricole	No	9,545	12	Enel SpA, Electricite de France SA, Engie SA
11	Santander	No	9,542	13	Enel SpA, Iberdrola SA, Naturgy Energy Group SA
12	Barclays	No	9,249	16	Rwe Ag, Enel SpA, SSE PLC
13	Mizuho Financial	No	9,187	9	Mitsubishi Corporation, Engie SA, Enel SpA
14	Bank of America	No	8,786	12	Enel SpA, Rwe Ag, Iberdrola SA
15	SMBC Group	No	8,618	13	Mitsubishi Corporation, Vitol, Enel SpA
16	Goldman Sachs	No	8,559	10	Enel SpA, Rwe Ag, A2A SpA
17	HSBC	Yes	8,427	21	Enel SpA, Rwe Ag, Vitol
18	Deutsche Bank	No	8,064	15	Enel SpA, Rwe Ag, Vitol
19	Intesa Sanpaolo	No	7,526	14	Enel SpA, Rwe Ag, Iberdrola SA
20	ING Group	No	6,659	16	Enel SpA, Vitol, Vattenfall AB
21	NatWest	No	5,747	13	SSE PLC, Rwe Ag, Vattenfall AB
22	Groupe BPCE	No	5,676	10	Enel SpA, Engie SA, Electricite de France SA
23	Commerzbank	No	5,505	11	Rwe Ag, Enel SpA, Vitol
24	Morgan Stanley	No	5,050	12	Enel SpA, Rwe Ag, Electricite de France SA
25	Royal Bank of Canada	No	4,259	9	Engie SA, SSE PLC, Rwe Ag

c. Top investors supporting gas power

Over the US\$200 billion owned by investors as of November 2022, 86.3% is shareholding, while 13.7% is bondholding.⁵¹

Supporting 29 companies, BlackRock is the overwhelming main investor, with a total of US\$22.1 billion invested in these, representing 11% of total investor support. It is partly because of the predominant position of BlackRock that the US is - by far - the most represented country among the nationalities of investors supporting European gas power.

Figure 7: Total investments by headquarters country of financial institutions

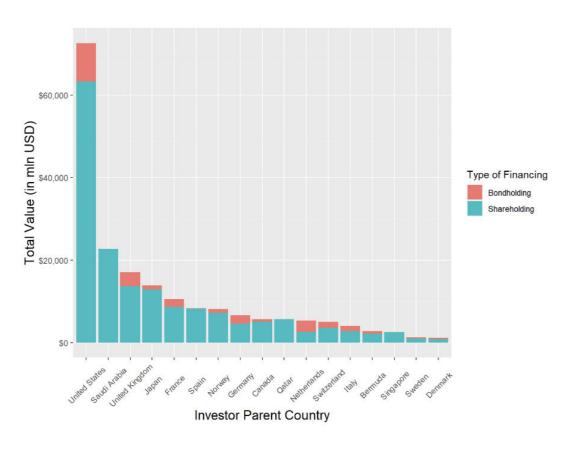




Table 3: Rankings of investor support to gas power producers and developers in Europe as of November 2022

Rank	Investor	Gas power policy?	Total investments (US\$ mn)	Companies exposed to	Top 3 companies exposed to
1	BlackRock	No	22,123	29	Iberdrola SA, Enel SpA, Edp - Energias De Portugal Sa
2	Public Investment Fund	No	14,955	1	ACWA Power
3	Government Pension Fund Global	No	7,856	20	Iberdrola SA, Enel SpA, Engie SA
4	Vision Invest	No	7,703	1	ACWA Power
5	Vanguard	No	7,477	26	Iberdrola SA, Enel SpA, Mitsubishi Corporation
6	La Caixa Group	Yes	7,435	10	Naturgy Energy Group SA, Iberdrola SA, Enel SpA
7	Capital Group	No	7,293	9	Enel SpA, Engie SA, SSE PLC
8	CVC Capital Partners Group	No	5,747	2	Naturgy Energy Group SA, Public Power Corporation SA
9	Qatar Investment Authority	No	5,652	2	Iberdrola SA, Edp - Energias De Portugal Sa
10	Global Infrastructure Partners	No	5,531	1	Naturgy Energy Group SA
11	Crédit Agricole	No	4,442	23	Rwe Ag, Iberdrola SA, Enel SpA
12	JPMorgan Chase	No	2,669	23	Mitsubishi Corporation, Iberdrola SA, Rwe Ag
13	Government Pension Investment Fund (GPIF)	No	2,317	18	Enel SpA, Iberdrola SA, Rwe Ag
14	Meiji Yasuda Life Insurance	No	2,213	2	Mitsubishi Corporation, Rwe Ag
15	Japan Mutual Aid Association of Public School Teachers	No	2,008	9	Enel SpA, Iberdrola SA, Engie SA
16	Allianz	No	1,979	22	Enel SpA, Electricite de France SA, Iberdrola SA
17	Deutsche Bank	No	1,954	25	Enel SpA, Rwe Ag, Iberdrola SA
18	Tokio Marine	No	1,938	1	Mitsubishi Corporation
19	Invesco	No	1,911	22	SSE PLC, Drax Group PLC, Enel SpA
20	Pictet	No	1,897	24	Rwe Ag, Iberdrola SA, SSE PLC
21	Fidelity International	No	1,887	21	Iberdrola SA, Enel SpA, Electricite de France SA
22	Temasek	No	1,738	1	Sembcorp Industries Ltd
23	Schroders	No	1,738	19	Drax Group PLC, Electricite de France SA, Iberdrola SA
24	Sun Life Financial	No	1,549	14	Iberdrola SA, Enel SpA, Engie SA
25	Algemeen Burgerlijk Pensioenfonds (ABP)	No	1,525	16	Enel SpA, Engie SA, Electricite de France SA
	ວາ				22



Of the 217 GW of gas plants to be phased out by 2035 in Europe, 134 GW are owned by just 38 utilities. Unfortunately, none of these are taking the necessary steps to decarbonize their power generation by 2035. Yet, financial institutions overwhelmingly back these utilities and have not shown an interest in pushing them to adopt adequate transition plans, which would require a gas phase-out in Europe by 2035.

a. Hundreds of billions in support of gas-intensive utilities

Well over half of the existing 217 GW of gas power capacity in Europe is owned by just 38 utilities, accounting for 134 GW of capacity in all (see part II, table A). While there has not been a significant increase of gas capacity since 2016, virtually no announcements have been made by these utilities of a gas exit either. On the contrary, the overwhelming majority of European utilities have not yet provided comprehensive transition plans towards a renewable-based electricity sector.

Since 2019, banks have provided US\$237.6 billion of finance to these utilities. Private banks providing the most support to the European operational gas fleet include BNP Paribas (US\$13.6 billion), BBVA (US\$11.9 billion), UniCredit (US\$10.9 billion) and Société Générale (US\$9.2 billion).

As for investors, these hold over US\$175.9 billion of bonds and shares from these utilities as of November 2022. The top 15 investors account for over 55% of the investments, led by BlackRock, the Public Investment Fund (the sovereign wealth fund of Saudi Arabia), Vision Invest and La Caixa Group.

b. Support validating unambitious transition plans

This extensive support is done despite the lack of an adequate transition plan for utilities.

Some utilities have ambitious development plans for real solutions for electricity, namely renewable energies. Enel, for example, has a development target of 130 GW of renewable capacity by 2030 (almost 80 GW more than in 2021), Iberdrola of more than 90 GW (more than 50 GW more) and ENGIE of 80 GW (more than 45 GW more). These solutions must come on top of the phase-out of fossil gas assets to really support a 1.5°C target. But there are still too many utilities that do not have a strong renewable energy target - or none at all, for example Drax and CE Oltenia.

Worse, most of the transition plans of European utilities do not address the issue of fossil gas. In its latest Net Zero Company Benchmark, Climate Action 100+ found that among the 14 European electric utilities it assessed - 11 of which are included in the scope of utilities in this report - an average of only 43% of operational and planned gas capacity was compatible with the IEA's Beyond 2°C Scenario (B2DS).52 Based on this benchmark of these 14 utilities, none had announced a full gas phase-out aligned with the same scenario.

Even when the issue of fossil gas and its climate impact is considered, the gas industry⁵³ tends to approach it with an unreasonable reliance on unproven and highly expensive solutions, such as the installation of carbon capture and storage (CCS) equipment on gas plants, or the switch to "renewable gas" like green hydrogen and biogas. The potential development of CCS technology is used to justify the power industry's lack of commitment to dismantle or put into reserve unabated fossil gas plants, for instance by ENGIE,54 RWE,55 SSE56 and Uniper.57

The energy industry has struggled in recent carefully managed to avoid the destruction decades to develop CCS, with prominent business leaders such as ENEL's CEO pointing out that "it doesn't work".58 Indeed, CCS agricultural land. devices have not yet reached a sufficient stage of development for reliance and are struggling to reach their promised capture rates. Only one CCS project is operational to date, the Boundary Dam coal plant in Canada,59 which seriously fails to achieve its targets. 60 Betting on speculative CCS is a distraction from already proven and rapidly scalable renewable energy, energy efficiency and other solutions.

Similarly, there is a growing trend around "green gas". Many utilities intend to maintain their operational fleet of gas plants, arguing that in the long run these will be burning "green gas" and not fossil gas - ENGIE, Naturgy, SSE and Vattenfall, for example.⁶¹ A recent study by Urgewald and Deutsche Umwelthilfe shows that out of 12 energy companies in Europe, only two state explicitly that they plan to phase out gas. On the contrary, other companies are embarking on unclear transitions towards "low carbon" and "climate neutral" gases. As a result, the majority of companies foresee a future energy mix still anchored in gas. Only two companies mention electrification as an alternative to gas combustion.62

However, the prospects for the development of these types of "green gas" are limited. Biogas and biomethane account for only 1% of current gas production, and green hydrogen represents only 0.5% of current global hydrogen production, which itself is about 0.03% of global gas production63 and accounts for less than 0.2% of global electricity production.64 Not only is biogas production currently low, but its development must be

of biodiversity-rich ecosystems or increased competition with food and feed crops on

"Green hydrogen" uses renewable electricity to split water molecules and produce hydrogen molecules. There is growing hype surrounding green hydrogen, despite the fact that:

- Current development targets unrealistic.65
- The production of electricity from hydrogen is inefficient: in a best-case scenario, producing 1 unit of electricity from green hydrogen initially takes 6 units of renewable electricity. 66,67
- Green hydrogen should not be used for electricity production due to these input necessities, but rather be reserved for hard-to-abate sectors such as the cement or steel industry.
- The potential for conversion of fossil gas infrastructure to green hydrogen is uncertain and costly.68
- Hydrogen is itself a significant GHG, although its combustion does not emit greenhouse gases: while being a relatively new subject, experts estimate its global warming potential to be in the range of 12 to 33 times that of CO2.69

While green hydrogen could play a role in electricity storage in the short term and until renewable battery further develops,70 the power industry's expectations of its potential role are entirely unrealistic.



ENGIE's inconsistent transition plan: a textbook case of bad faith

ENGIE has the second-largest gas power generation capacity in Europe, with 50% of its total power generation capacity coming from fossil gas. The French utility intends to further develop its global gas fleet with over 3.7 GW of planned additional capacity, making ENGIE one of the top developers of gas plants in the world among European utilities. Of this, 1.6 GW is being developed in Europe. Because of its significant gas plant fleet, ENGIE ranks amongst the highest emitting utilities in Europe.⁷¹

ENGIE's transition strategy does not include a gas phase-out, instead it has an unclear plan to convert gas assets from fossil gas to renewable gas by 2045. ENGIE committed to decarbonize its gas usage by 2040-2045, but this seems highly uncertain and is based on solutions that remain hypothetical. The utility projects that its gas plants could be totally climate neutral by 2045 via conversion to green hydrogen, biomethane and the installation of CCS devices. ENGIE's strategy aligns perfectly with the International Gas Union narrative promoting the continued use of gas in Europe, 72 an association of which ENGIE is Premium Associate Member.

ENGIE has published objectives for 2030, which includes the production

of 10 TWh of biomethane in Europe, 5 of which in France, and 4 GW of green hydrogen production capacity, as well as the development of 700 km of dedicated hydrogen networks and 1 TWh of dedicated underground storage.⁷³ However, targets for development in 2045 remain very unclear, and the group does not communicate on the share of existing and developing fossil gas capacities concerned in the conversion to renewable gas. The company also indicates that CCS plays a central role in achieving its objective of 100% decarbonized gas by 2045, but gives no indication of a CCS contribution to its 2025 and 2030 targets, or of R&D and greenfield investments planned to match its objectives.

With US\$21 billion in bank support since 2019, ENGIE is one of the utilities that has received the most financial services, including from Société Générale, Crédit Agricole and BNP Paribas. The French utility is also one of the most backed by investors, with more than US\$13 billion in support, including from BlackRock, Capital Group and the Caisse des Dépôts et Consignations.

Beyond utilities, other types of companies are operating gas plants

• Oil & Gas (O&G) majors and traders

Some new players are entering the electricity generation market, either by buying existing power plants or building new ones. This is particularly the case for integrated oil and gas companies, such as TotalEnergies, which owns more than 3.6 GW of operational gas plants in Europe equating to the sixteenth-largest operational fleet in the region. Other integrated oil and gas companies, such as Eni and Repsol, are also present in the market, with 2.5 GW and 1.6 GW of operational capacity respectively. The trading company Vitol has also diversified into the sector, by buying over 3.3 GW of operational capacity.

As with the utilities, the production of electricity from fossil gas is often presented as a transition activity and is even categorised in the same business unit as renewable energies for TotalEnergies.74 These integrated companies have specific interests even more so than power utilities - in promoting gas as a transition fuel, since part of their business is based on exploration, production and trade of the hydrocarbon. This is illustrated by the lobby carried by industry associations, such as the International Gas Union, which gathers oil and gas companies like TotalEnergies, ENI and Repsol,75 and which has successfully influenced EU policy bodies in the past.76

Private equity firms

Of the fossil gas plants researched, nine can be traced to the private equity industry. These plants represent a

total capacity of 5.8 GW, and the private equity firms linked to them are Blackstone, EIG, Copenhagen Infrastructure Partners and Fondi Italiani per le Infrastrutture SGR (see Annex 2 for details).⁷⁷

There are concerns about the involvement of private equity firms in the fossil fuel sector, as the private equity industry is characterised by the following:

- Due to the nature of their business as investors operating in private markets, private equity firms are notoriously opaque and provide the public with limited information about their investments and activities.⁷⁸
- In terms of climate commitments, private equity firms lag behind traditional financial institutions.⁷⁹
- Private equity firms are part of a trend of transferring fossil fuel assets from public to private markets through acquisition transactions.⁸⁰ As a result, emissions are only transferred, which does not contribute to the goal of decarbonizing the real economy.

Financial institutions must adopt sectoral policies covering all types of companies owning, building or planning new gas plants. These policies should also ensure that no gas plant is sold without a commitment from the buyer to close or mothball it within a time frame aligned with a 1.5°C trajectory.

FIRING UP DOZENS OF GIGAWATTS OF NEW PROJECTS

Operational gas plants in Europe are only the tip of the iceberg. A major threat is looming, with over 63 GW of new gas plants being developed. Utilities are not the only stakeholders in this alarming expansion, which threatens to sharply increase stranded assets in Europe and locked-in emissions over the coming decades. Stopping financial support for these new projects is a matter of urgency, but financial institutions have yet to respond to the pressing need for action.

a. Over 60 GW of soon-tobe stranded assets

Not only do utilities active in Europe operate a substantial fleet of operational gas plants, but even worse, a flood of new projects is being planned. Multiple stakeholders are projecting a total of more than 63 GW of future gas plants, of which 11.4 GW are already in construction and 52.4 GW in preconstruction.⁸¹

This represents a serious risk of either carbon lock-in or stranded assets. The investment required to build a gas plant is generally amortised in more than 10 years82 and the plants easily operate for an average of 30 years,83 and up to 40-50 years.84 Thus, gas plants that are commissioned from now on could continue to emit greenhouse gases until after 2050. In the absence of specific political or strategic decisions - such as national decisions to phase out fossil gas or company decisions to close early - these plants would emit quantities of GHGs that are incompatible either with European climate objectives or with limiting global warming to 1.5°C. Alternatively, such political or strategic decisions would lead to the depreciation of these infrastructures, even when they have not yet been depreciated. As such, the risk of stranded assets is major.85

A recent study by Ember exploring the leastcost pathways to a clean power system in Europe modelled several scenarios for the future of European power.86 The Stated Policy scenario, which is the least ambitious, is aligned with stated national policies until 2035: it has the highest emissions and is the only scenario not to decrease its gas fleet beyond 2025. The System Change scenario is the most ambitious pathway, which remains in a 1.5°C compatible trajectory and results in European electricity being almost entirely based on renewable energies by 2035. The Limited New Gas scenario, an alternate scenario thought to respond to the recent gas crisis, explores a way that does not involve building any new unabated base load or peaking gas plants beyond 2025, and that achieves absolute zero emissions ten years

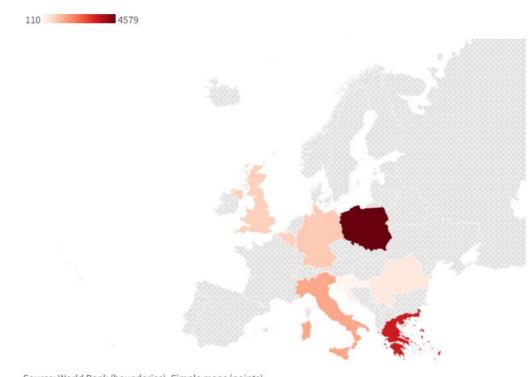
later than the most ambitious System Change scenario.

Both scenarios project a strong increase in utility-scale batteries to meet power peaking capacity requirements and to accommodate growing renewable energy. Base load gas capacity peaks in 2025 at 211 GW,⁸⁷ before falling to less than 165 GW in 2030. With a current 190 GW of gas power assets in operation, mothballed or under construction, more than half of the projects at the preconstruction stage now would have no use in 2025. By 2030, not only would they all be purposeless, but 14% of the currently operating and mothballed fleet would need to retire (see Figure 10, page 44).

Pre-construction projects are particularly concerning as they predominantly consist of combined cycle gas turbines (CCGT), which are unsuitable for the role that thermal power plants will play in Europe. The power system must integrate more and more renewable energy rather than increase fossil fuel generation in order to lower carbon emissions. High penetration of variable renewable energy sources requires enhanced system flexibility through a varied portfolio of technologies and fast-reaction mechanisms to ensure the continuous supply of electricity, and this will not require increased CCGT capacity which is suitable for baseload power.

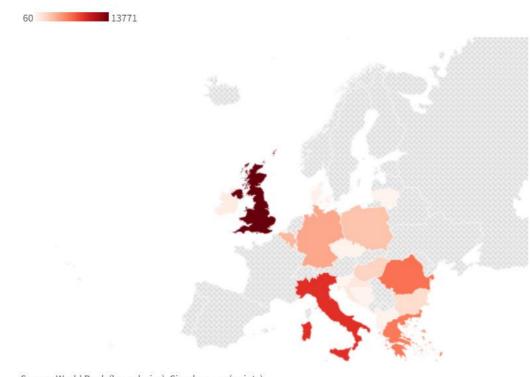
Instead, the solutions lie in clean dispatchable technologies - such as battery storage, enhanced system interconnectivity and demand-side management. As this new decarbonized system develops, with wind and solar at its core, gas will rapidly be relegated to a back-up role in the form of open cycle gas turbine (OCGT) peaking plants, rather than traditional base load CCGT plants. However, at European level the overwhelming majority of new projects (up to 53 GW)⁸⁸ are CCGT plants, the unsuitability of which makes them all the more likely to rapidly become stranded assets.

Figure 8: Gas Baseload Capacity (MW) at the construction stage in Europe, Q3 202289



Source: World Bank (boundaries), Simple maps (points)

Figure 9: Gas Baseload Capacity (MW) at the pre-construction stage in Europe, Q3 202290



Source: World Bank (boundaries), Simple maps (points)

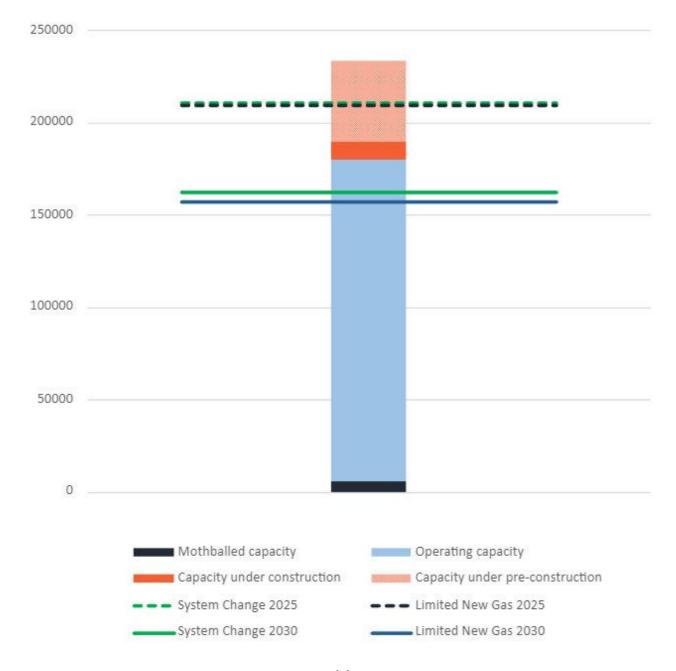
b. Massive support for the top gas power developers

The first step to address gas-fired electricity generation should be to stop granting new financial services to gas power developers, or to make it conditional upon specific and detailed requirements regarding the type of power plants being developed and the extent to which they are aligned with a credible clean transition strategy.

Yet, financial flows to the largest developers in Europe are pouring in. Out of the projects currently in pre-construction or construction in Europe, some 70% (44 GW) are being developed by only 28 companies (see part II, table A). These companies have gathered bank financing of more than US\$230 billion, and investor backing of US\$98 billion.⁹¹

The top private banking support for these companies are La Caixa Group (US\$15.1 billion), Mitsubishi UFJ Financial (US\$11.2

Figure 10: Operational and in development base load capacity, versus what is needed, in Ember's New Generation scenarios





billion), BNP Paribas (US\$10.6 billion) and Citigroup (US\$9.2 billion).

On the investor side, top financial support include BlackRock (US\$11.5 billion), Capital Group (US\$6.3 billion), Government Pension Fund Global (US\$4.5 billion), Vanguard (US\$4.2 billion) and Meiji Yasuda Life Insurance (US\$2.2 billion).

However, these companies account for some of the most harmful projects to the environment. While the share of baseload plants is already predominant in their operational plants, the projects that they are developing are overwhelmingly composed (over 82.5%) of base load plants (see Figure 11 and 12, page 46), with some developing an especially concerning amount of base load plants, such as EPH (5.1 GW), EDF (3.1 GW), LNG9 (2.4 GW) and PGE (2.3 GW).

If the future plans of these major gas power developers - i.e. projects that have not yet entered construction - remain supported enough to proceed, more than 28.6 GW of new base load capacity could be developed by 2030, and would result in emissions of more than 52.3 MtCO2e per year (see Figure 13, page 47).

Overall, over 18 GW of new gas plant projects in Europe correspond to the replacement of former coal plants (see Figure 14, page 47). Many companies are developing replacement plants for their old coal plants, including EPH (2.8 GW), PGE (2.3 GW), CE Oltenia (1.3 GW), etc. But converting a coal power plant to gas is not climate-aligned, as any new gas plant is likely to run for several decades, creating significant GHG emissions lock-in. In effect, replacing coal with gas only risks turning one type of stranded fossil fuel asset into another. Stranded

While projects under construction can no longer be influenced by financial institutions, at least 52.4 GW of pre-construction projects could be affected by the withdrawal of financial support. In order to prevent the expansion of fossil fuelfired electricity in Europe, it is imperative that private finance has a sectoral policy on gas power. Without this, gigawatts of new projects could be commissioned in the coming years, threatening to generate a dramatic carbon lockin in Europe, or a massive wave of stranded assets.

Figure 11: Peakers' share among existing and new gas plants - within scope of 28 gas power developers with over 300 MW of projects

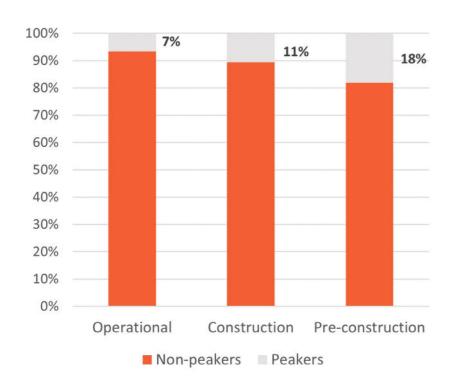
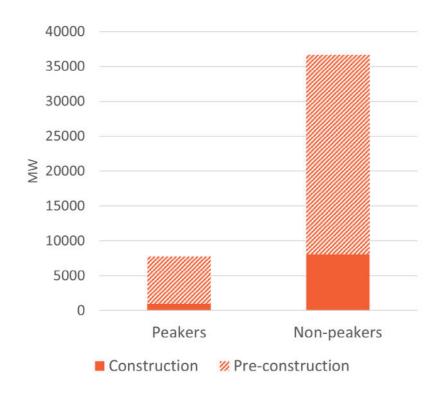


Figure 12: Operating capacity addition (GW) by 2030, distributed as peakers or non-peakers - within the scope of 28 gas power developers with over 300 MW of projects



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Figure 13: Short-term CCGT growth and resulting emissions by 2025

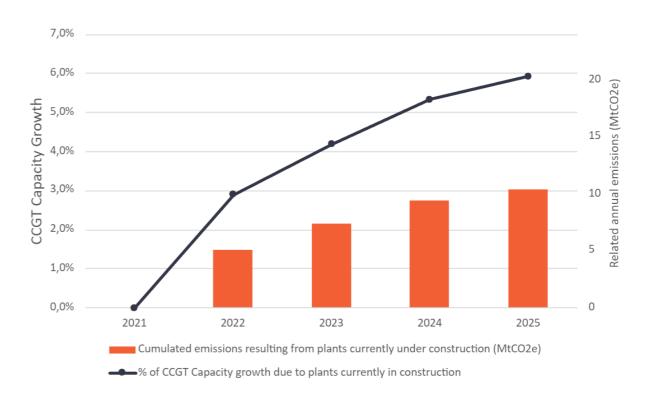
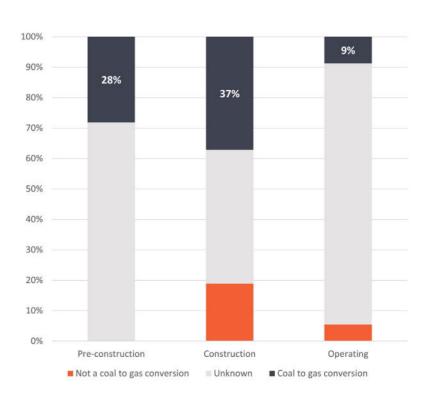


Figure 14: Share of capacity under development corresponding to coal power plant replacements - within scope of 28 gas power developers with over 300 MW of projects



EPH: a climate villain powered by Société Générale

The energy and industry group Energeticky a Prumyslovy Holding (EPH) is a major threat to the decarbonization of Europe's power sector. The group currently has more than 7.1 GW of projects in pre-construction, which corresponds to more than 10% of the total number of projects being developed in Europe and represents the largest number of gas power projects by a single company in the region. The group already operates one of the largest fleets of gas plants (almost 7 GW) and intends to more than double this with its new projects.

Before becoming a gas villain, EPH has been and continues to be a major obstacle to the exit from coal in Europe. EPH specialises in buying up coal mines and coal plants at the end of their lives. Until now, its strategy has been to operate them for as long as possible in order to make maximum profit, or to claim compensation from EU Member States in the event of a coal phase-out timeline in disagreement with EPH's plans.⁹⁴

Since it is not publicly listed, EPH escapes the pressure of shareholders, but several banks continue to provide crucial support for its activities, including the Société Générale group. Société Générale's Czech subsidiary, Komercni Banka, is a long-term and consistent collaborator with EPH.⁹⁵ It participated in a package of three loans totaling EUR€ 1 billion on 17th March 2021, which has been channelled into the group's coal activities.⁹⁶ It also participated in the underwriting of bonds for EPH in 2018, 2020 and 2022 for a total of over US\$540 million.

VIRTUALLY NON-EXISTENT GAS POWER SECTORAL POLICIES

The lack of policies of financial institutions regarding downstream gas, and especially power generation, is glaring. In order to stem the tide of new projects threatening Europe's electricity transition, it is imperative that financial institutions put in place stringent engagement and exclusion practices.

A pivotal sector neglected by financial institution's policies

While oil and gas policies are spreading - albeit too slowly - they are frequently restricted to upstream gas or entirely limited to oil. Reducing the demand for gas and adopting stringent energy saving and efficiency measures are essential to ensure a smooth and ordered decrease of overall fossil gas use - financial institutions can contribute to this by limiting and conditioning their support for downstream gas projects, starting with gas power.

A sound policy must prevent funding for new gas plant projects, whether they are coal replacements or stand-alone construction. In particular, new base load projects should be banned immediately. This means that direct funding and insurance coverage to these individual projects must cease, but also that corporate-level financial support must be drastically restricted and conditioned.

In terms of this corporate-level financing, it is essential that policies be in place to frame the financial services to gas power producers and developers. Banks, investors and insurers should actively engage their clients to push them to fast-track their transition and commit not to develop new gas plants, adopt a net zero 2050 objective aligned with a 1.5°C scenario and a gas phase out date.

Unfortunately, the very few policies that exist today are predominantly vague and weak. Over the 25 banking policies reviewed, only three include at least one criteria to exclude gas power projects: La Caixa Group, Société Générale and HSBC. These exclusions are not strong, and are limited for La Caixa Group to long-term transactions, while Société Générale has implemented a maximum emission intensity threshold above which a CCGT project cannot be funded - but with no restrictions funding for OCGT plants of any sort. HSBC's policy states that the bank will not provide new financing to unabated gas projects, but that exclusion comes with vaguely defined exceptions. None of the 25 banks reviewed exclude financing to gas power developers.

Most of these 25 banks have adopted decarbonization targets for the power sector. While this represents a first step in addressing the power generation sector as a whole, none of the methodologies for these targets addresses expansion, which is essential if they are to guarantee a rapid end to all financial services to gas power expansion. Moreover, these targets have major loopholes:

- They do not account for the lifetime emissions of projects. Existing methodologies are mostly based on "financed emissions" as defined by the Partnership on Carbon Accounting Financials (PCAF). Using PCAF's methodology, emissions from new gas plants will only show up on bank's financed emissions disclosures for the few years it will take for loans to be paid off, while the emissions from the projects may continue for decades.
- They often only address lending, thus failing to include underwriting, which is a substantial source of financing for companies. Between January 2019 and November 2022, commercial banks provided over US\$89.2 billion to gas power developers in underwriting.
- Most targets are formulated using emissions intensity rather than absolute emissions to the atmosphere. Absolute targets are the best way to mitigate emissions, as intensity targets can be met if banks' absolute financed emissions plateau, or even increase.

As far as investors are concerned, only one out of the 25 reviewed have a (slight) gas power policy: La Caixa Group. None of these investors exclude financing to gas power developers. As the vast majority of investors do not have sector-specific decarbonization targets, including for the power sector, this criterion has not been examined in the following tables.



• Gas power restriction policies by bankers and investors listed in this report

Banks listed in the top 25 supporter of gas power in Europe	Does the bank have a gas power policy? Yes - exclusion Yes - due diligence Yes - engagement No	Does the company exclude new gas plant projects?	Does the company exclude financing to developers?	Support from 2019 to 2022 to gas power in Europe(in US\$ mln)	Does the bank have a power decarbonization target? (intensity target in scope 1 by 2030 and reduction target since baseline year, if available)
La Caixa Group	Yes - exclusion ⁹⁷	Yes - partially	No	17,467	95 kgCO2e/MWh (-30% from baseline 2020)
BNP Paribas	No	No	No	14,287	<146 kgCO2/MWh (>-30% by 2025 from baseline 2020)
Mitsubishi UFJ Financial	No	No	No	13,106	156-192 kgCO2e/MWh (between -45% and -55% from baseline 2019)
Citigroup	No	No	No	12,858	115 kgCO2e/MWh (-63% from 2020)
KfW	No	No	No	12,049	
Banco Bilbao Vizcaya Argentaria (BBVA)	No	No	No	11,965	119.5 kgCO2e/MWh (-52% from baseline 2020) *scope 1 and 2
UniCredit	No	No	No	11,790	111 kgCO2e/MWh (-47% from baseline 2021)
Société Générale	Yes - exclusion ⁹⁸	Yes - partially	No	10,752	125 kgCO2/MWh
JPMorgan Chase	No	No	No	9,796	115.4 kgCO2/MWh (-69% from baseline 2019) ⁹⁹
Crédit Agricole	No	No	No	9,545	-95 kgCO2e/MWh (-58% from baseline 2020)
Santander	No	No	No	9,542	110 kgCO2e/MWh (-46% from baseline 2019)
Barclays	No	No	No	9,249	Between -50% to -69% from baseline 2020 ¹⁰⁰
Mizuho Financial	No	No	No	9,187	138-232 kgCO2/MWh (between -40% to -64% from baseline 2020)
Bank of America	No	No	No	8,786	-70% from baseline 2019
SMBC Group	No	No	No	8,618	138-195 kgCO2e/MWh (between -41% to -58% from baseline 2020)
Goldman Sachs	No	No	No	8,559	147-219 kgCO2e/MWh (between -48% and -65% from baseline 2019) ¹⁰¹
HSBC	Yes - exclusion 102	Yes - partially	No	8,427	138 kgCO2/MWh (-77% from baseline 2019) *scope 1 and 2
Deutsche Bank	No	No	No	8,064	-69% from baseline 2021
Intesa Sanpaolo	No	No	No	7,526	110 kgCO2e/MWh (-48% from baseline 2021) *scope 1 and 2
ING Group	No	No	No	6,659	-53% from baseline 2018 *scope 1 and 2 ¹⁰³
NatWest	No	No	No	5,747	53 kgCO2e/MWh (-76% from baseline 2019) *scope 1 and 2
Groupe BPCE	No	No	No	5,676	<138 kgCO2e/MWh *scope 1 and 2
Commerzbank	No	No	No	5,505	24 kgCO2/MWh -73% from baseline 2021
Morgan Stanley	No	No	No	5,050	-58% from baseline 2019 *scope 1, 2 and 3
Royal Bank of Canada	No	No	No	4,259	156 kgCO2e/MWh (-54% from baseline 2019)

Investors listed in the top 25 supporters of gas power in Europe	Does the investor have a gas power policy?	Does the company exclude financing to gas power in Europe?	Support from 2019 to 2022 to gas power in Europe (in US\$ mln)
BlackRock	No	No	22,123
Public Investment Fund	No	No	14,955
Government Pension Fund Global	No	No	7,856
Vision Invest	No	No	7,703
Vanguard	No	No	7,477
La Caixa Group	Yes - exclusion	no	7,435
Capital Group	No	No	7,293
CVC Capital Partners Group	No	No	5,747
Qatar Investment Authority	No	No	5,652
Global Infrastructure Partners	No	No	5,531
Crédit Agricole	No	No	4,442
JPMorgan Chase	No	No	2,669
Government Pension Investment Fund (GPIF)	No	No	2,317
Meiji Yasuda Life Insurance	No	No	2,213
Japan Mutual Aid Association of Public School Teachers	No	No	2,008
Allianz	No	No	1,979
Deutsche Bank	No	No	1,954
Tokio Marine	No	No	1,938
Invesco	No	No	1,911
Pictet	No	No	1,897
Fidelity International	No	No	1,887
Temasek	No	No	1,738
Schroders	No	No	1,738
Sun Life Financial	No	No	1,549
Algemeen Burgerlijk Pensioenfonds (ABP)	No	No	1,525

*CaixaBank Asset Management states in its Sustainability Risks Integration Policy, July 2022, p28: "CaixaBank AM will restrict investment in companies when: [...] *Companies with Group revenues greater than 50% from exploration, extraction/production, liquefaction, transportation, regasification, storage and electricity generation with natural gas, provided that they do not promote the energy transition and one of the following circumstances does not apply: They have an adequate diversification or decarbonisation strategy; or the purpose of the operation is renewable energy."

CONCLUSION

The expansion of gas power in Europe must be stopped. Experts' recommendations indicate that European electricity must be completely decarbonized by 2035 - i.e. in twelve years, which leaves no room for new gas power projects. Financial institutions have a responsibility to support the transition of the European electricity sector and to enable the region to turn its back on expensive, volatile and harmful fossil fuels.

Over the last four years, the support of financial institutions for the European gas power sector and its development has been massive. If robust engagement and exclusion policies - which are currently non-existent - are not put in place, there is every reason to believe that tens of additional gigawatts of gas power will be built in Europe in the coming years. This would categorically derail the transition of the European power sector, which is a crucial component of the global effort to limit global warming.

Today, the imperative is to drastically restrict financial support for the development of new projects in order to limit the construction of new gas capacity in Europe and secure commitment by gas power companies not to develop new gas plants. Additionally, the region's gas phase-out must be carefully and urgently considered and implemented in order to radically cut gas-fired power generation by 2035.

The business models of power utilities, which primarily focus on electricity production, allow for a clear line of demands that are consistent with the science-based recommendations for the power sector. Indeed, as their activities are centred on electricity production, it is possible for utilities to follow the recommended coal exit by 2030, as well as the recommended gas exit by 2035 in EU/OECD countries and by 2040 in the rest of the world.

Furthermore, utilities should not only phase out gas, but complement this exit with the large-scale development of renewable energy - primarily wind and solar energy - to meet the growing need for electricity production. More broadly, any company with activities including electricity production should see its financial support conditional on a commitment not to develop new gas-fired power plants, to adopt a net zero by 2050 objective aligned with a 1.5°C scenario, and a fixed gas phase-out date.

KEY RECOMMENDATIONS

Reclaim Finance calls on financial institutions to:

- End all support to new gas plants of gas power producers and developers that don't have a gas exit plan by 2035 in Europe.
- No new financial services for gas power producers that do not:
 - Plan the end of their investment(s) in new gas projects;
 - Adopt a net zero by 2050 objective in alignment with a 1.5°C scenario;
 - Adhere to a fixed date for phasing out the use of gas.
- Commit to phase out gas exposure and end all financial services to gas power by 2035 in Europe.
- Actively engage gas power producers and developers to push them to:
 - Commit not to develop new gas plants.
 - Commit to a net zero by 2050 objective aligned with a 1.5°C scenario.
 - Commit to bringing fossil gas-related activities close to zero by 2035 at the latest in European countries.
 - Pledge that by 2030, for each dollar of capex investment spent in the fossil fuel-fired power sector, at least four dollars will be invested in sustainable power. This ratio increases to 1:9 if it includes production, storage, transport and energy efficiency measures.
 - Adopt a comprehensive climate transition plan that allows investors to assess their alignment with a 1.5°C scenario.
 - Commit to submit the above-mentioned plan and an assessment of ongoing implementation to an annual vote ("Say on Climate") at AGM, in the case of publicly listed companies.

APPENDICES

Annex 1 - European gas plants backed by private equity firms as of September 2022

Gas plant	Plant country	Owner	Owner country	Total capacity (MW)	Status
Rijnmond power station	Netherlands	Blackstone	USA	810	Operating
West Burton power station	United Kingdom	EIG	USA	1 360	Operating
Griesheim Reserve power station	Germany	Copenhagen Infrastructure Partners	Denmark	335	Shelved
Gundelfingen Reserve power station	Germany	Copenhagen Infrastructure Partners	Denmark	1 200	Pre- construction
Aprilia power station	Italy	Fondi Italiani per le Infrastrutture SGR*	Italy	787	Operating
Bertonico - Turano Lodigiano power station	Italy	Fondi Italiani per le Infrastrutture SGR*	Italy	800	Operating
Modugno power station	Italy	Fondi Italiani per le Infrastrutture SGR*	Italy	800	Operating
Termoli power station	Italy	Fondi Italiani per le Infrastrutture SGR*	Italy	769	Operating
Bertonico Peaker power station	Italy	Fondi Italiani per le Infrastrutture SGR*	Italy	330	Pre- construction

Source: Reclaim Finance analysis based on data from Global Energy Monitor's Global Gas Plant Tracker as of September 2022. Some plants have changed ownership or status since September 2022: the Rijnmond power station is now owned by EPH, ¹⁰⁵ the Gundelfingen Reserve power station has been shelved, and the Bertonico Peaker power station status is now cancelled.

^{*}Fondi Italiani per le Infrastrutture is the majority owner of Sorgenia, the operator of the plants. Sorgenia's ownership is divided as follows: 72.4% Fondi Italiani per le Infrastrutture; 27.6% Zaffiro.



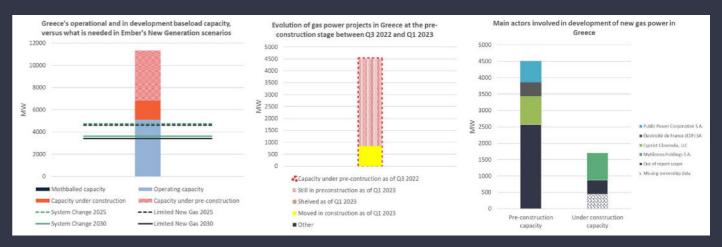
Annex 2 - Country-wise key statistics on gas fleet development plan

This appendix presents the results of this study aggregated by country and summarised in three charts. It is provided for the top three countries ranked by capacity under development, i.e., under construction or in the pre-construction stage. Together, these three countries account for over 50% of the expansion of gas-fired power generation in Europe. If you need information about another country, please contact us.

Graphics are explained below:

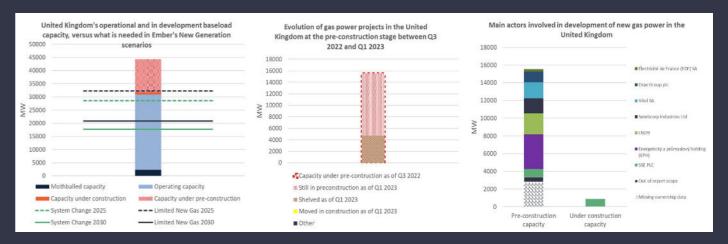
- First figure: The first graph compares the nation's capacity for mothballed CCGTs - which are shut down but could restart - in operation and under construction to the levels needed by 2025 (dotted lines) and by 2030 (solid lines) in Ember's «System Change» (green) and «New Gas Limited» (blue) scenarios. We also overlaid the capacity of projects currently in the preconstruction phase to determine where the total fleet would be in relation to the need if all projects were implemented.
- Second figure: This report used the Global Energy Monitor July 2023 version of its Global Gas Plant Tracker. If information related to existing projects doesn't change much, projects before the construction stage details can change pretty quickly. To account for this, we partially updated our working dataset to reflect the evolution of status of the assets to enable the visualisation of the share of pre-construction projects having paused, still going on, or having proceeded. The Other category regroups projects that have been cancelled, as well as marginal capacity corrections due to information update.
- Third figure: This graphic shows, for all the capacity under construction or at the pre-construction stage, the ownership behind it within the limits of this report's scope.

Greece



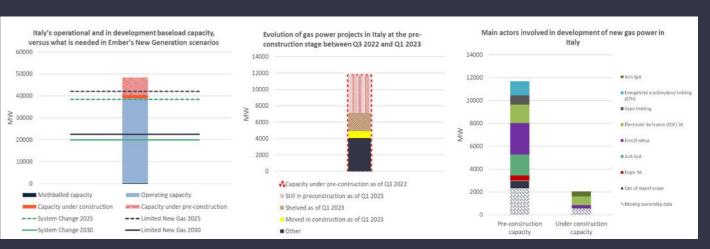
Source: Global Energy Monitor's "Global Gas Plant Tracker" database, Ember's "New generation" report and modeling data.

United Kingdom



Source: Global Energy Monitor's "Global Gas Plant Tracker" database, Ember's "New generation" report and modeling data.

Italy



Source: Global Energy Monitor's "Global Gas Plant Tracker" database, Ember's "New generation" report and modeling data.

Annex 3 - Banking data with loans and underwriting split

Rank	Bank	Gas power policy?	Loans (US\$ mln)	Underwriting (US\$ mln)	Total financing provided in (US\$ mn)	Companies Financed	Top 3 companies
1	La Caixa Group	Yes	16,224	1,243	17,467	11	Vitol, Enel SpA, Naturgy Energy Group SA
2	BNP Paribas	No	6,424	7,863	14,287	20	Enel SpA, Electricite de France SA, Engie SA
3	Mitsubishi UFJ Financial	No	9,915	3,191	13,106	15	Mitsubishi Corporation, Enel SpA, Vitol
4	Citigroup	No	6,474	6,384	12,858	21	Mitsubishi Corporation, Enel SpA, Iberdrola SA
5	KfW	No	12,049		12,049	3	Uniper SE, Vitol, EnBW Energie Baden Wuerttemberg AG
6	Banco Bilbao Vizcaya Argentaria (BBVA)	No	6,814	5,151	11,965	16	Enel SpA, Iberdrola SA, Naturgy Energy Group SA
7	UniCredit	No	6,237	5,553	11,79	17	Enel SpA, Iberdrola SA, Vitol
8	Société Générale	Yes	5,580	5,172	10,752	17	Enel SpA, Engie SA, Electricite de France SA
9	JPMorgan Chase	No	3,888	5,908	9,796	17	Enel SpA, Vitol, Rwe Ag
10	Crédit Agricole	No	4,994	4,551	9,545	12	Enel SpA, Electricite de France SA, Engie SA
11	Santander	No	5,904	3,638	9,542	13	Enel SpA, Iberdrola SA, Naturgy Energy Group SA
12	Barclays	No	3,544	5,705	9,249	16	Rwe Ag, Enel SpA, SSE PLC
13	Mizuho Financial	No	7,07	2,117	9,187	9	Mitsubishi Corporation, Engie SA, Enel SpA
14	Bank of America	No	3,191	5,595	8,786	12	Enel SpA, Rwe Ag, Iberdrola SA
15	SMBC Group	No	6,383	2,235	8,618	13	Mitsubishi Corporation, Vitol, Enel SpA
16	Goldman Sachs	No	3,010	5,549	8,559	10	Enel SpA, Rwe Ag, A2A SpA
17	HSBC	Yes	3,69	4,737	8,427	21	Enel SpA, Rwe Ag, Vitol
18	Deutsche Bank	No	3,978	4,086	8,064	15	Enel SpA, Rwe Ag, Vitol
19	Intesa Sanpaolo	No	4,199	3,327	7,526	14	Enel SpA, Rwe Ag, Iberdrola SA
20	ING Group	No	3,512	3,147	6,659	16	Enel SpA, Vitol, Vattenfall AB
21	NatWest	No	2,569	3,178	5,747	13	SSE PLC, Rwe Ag, Vattenfall AB
22	Groupe BPCE	No	3,134	2,541	5,676	10	Enel SpA, Engie SA, Electricite de France SA
23	Commerzbank	No	3,142	2,363	5,505	11	Rwe Ag, Enel SpA, Vitol
24	Morgan Stanley	No	1,951	3,099	5,050	12	Enel SpA, Rwe Ag, Electricite de France SA
25	Royal Bank of Canada	No	2,484	1,775	4,259	9	Engie SA, SSE PLC, Rwe Ag

Annex 4 - Investor data with bonds and equity split

Rank	Investor	Gas power policy?	Bondholding (US\$ mln)	Shareholding (US\$ mln)	Total investments in (US\$ mn)	Companies exposed to	Top 3 companies
1	BlackRock	No	2,141	19,982	22,123	29	Iberdrola SA, Enel SpA, Edp - Energias De Portugal Sa
2	Public Investment Fund	No		14,955	14,955	1	ACWA Power
3	Government Pension Fund Global	No	945	6,911	7,856	20	Iberdrola SA, Enel SpA, Engie SA
4	Vision Invest	No		7,703	7,703	1	ACWA Power
5	Vanguard	No	790	6,688	7,477	26	Iberdrola SA, Enel SpA, Mitsubishi Corporation
6	La Caixa Group	Yes	15	7,420	7,435	10	Naturgy Energy Group SA, Iberdrola SA, Enel SpA
7	Capital Group	No	129	7,165	7,293	9	Enel SpA, Engie SA, SSE PLC
8	CVC Capital Partners Group	No		5,747	5,747	2	Naturgy Energy Group SA, Public Power Corporation SA
9	Qatar Investment Authority	No		5,652	5,652	2	Iberdrola SA, Edp - Energias De Portugal Sa
10	Global Infrastructure Partners	No		5,531	5,531	1	Naturgy Energy Group SA
11	Crédit Agricole	No	607	3,836	4,442	23	Rwe Ag, Iberdrola SA, Enel SpA
12	JPMorgan Chase	No	332	2,336	2,669	23	Mitsubishi Corporation, Iberdrola SA, Rwe Ag
13	Government Pension Investment Fund (GPIF)	No	504	1,813	2,317	18	Enel SpA, Iberdrola SA, Rwe Ag
14	Meiji Yasuda Life Insurance	No		2,213	2,213	2	Mitsubishi Corporation, Rwe Ag
15	Japan Mutual Aid Association of Public School Teachers	No	17	1,991	2,008	9	Enel SpA, Iberdrola SA, Engie SA
16	Allianz	No	1,157	822	1,979	22	Enel SpA, Electricite de France SA, Iberdrola SA
17	Deutsche Bank	No	325	1,629	1,954	25	Enel SpA, Rwe Ag, Iberdrola SA
18	Tokio Marine	No	11	1,928	1,938	1	Mitsubishi Corporation
19	Invesco	No	141	1,770	1,911	22	SSE PLC, Drax Group PLC, Enel SpA
20	Pictet	No	60	1,837	1,897	24	Rwe Ag, Iberdrola SA, SSE PLC
21	Fidelity International	No	491	1,396	1,887	21	Iberdrola SA, Enel SpA, Electricite de France SA
22	Temasek	No	1	1,737	1,738	1	Sembcorp Industries Ltd
23	Schroders	No	799	939	1,738	19	Drax Group PLC, Electricite de France SA, Iberdrola SA
24	Sun Life Financial	No	123	1,426	1,549	14	Iberdrola SA, Enel SpA, Engie SA
25	Algemeen Burgerlijk Pensioenfonds (ABP)	No	965	560	1,525	16	Enel SpA, Engie SA, Electricite de France SA

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- 81. Represent all (pre)construction plans covered in this report, except those taking place in Cyprus: 160 MW of pre-construction and 260 MW of under construction capacity.
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- 87. 210 GW for the Limited New Gas scenario.
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- 89. These numbers are taken from the July 2022 version of Global Energy Monitor's Global Gas Plant Tracker database. The latest version of this database, released in February 2023, shows that of these 52.4 GW in preconstruction stage, over 34 GW have remained at this stage, and around 2.9 GW went on to construction, while over 10 GW have moved to a «shelved» stage. This status means that two years have passed with no action on a project after the project proposal. While this may suggest a decline in the realisation of new infrastructures, shelved projects cannot be set aside, as they represent projects that can resume their course quickly, depending on the inflections linked to the economic context (gas prices or geopolitical situation for example) or the strategies of the companies developing them.
- 90. Represent all (pre)construction plans covered in this report, except those taking place in Cyprus: 160 MW of pre-construction and 260 MW of under construction capacity.

- 91. Financial data was not available for LNG9 (2.4 GW in development), CE Oltenia (1.3 GW), Copenhagen Infrastructure Partners (1.2 GW) and Clavenia Limited (0.9 GW).
- 92. With 3.3 GW of gas development plans based on coal power replacement, Enel was listed as the leader of coal to gas replacement in Global Energy Monitor's July 2022 Global Gas Plant Tracker database. The latest version of this database shows that 2.5 GW have been cancelled since, while the 800 MW remaining have been shelved.
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- 94. Re-set: Platform for Socio-Ecological Transformation, <u>Betting Against our Future: How Czech coal companies derail decarbonization and insurers are helping them stay afloat</u>, April 2021.
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- 96. Anthropocene Fixed Income Institute, <u>A lignite revolver? New EPH loan deal comment</u>, 5 April 2021.
- 97. CaixaBank states in its Operating principles of the Corporate Policy for managing sustainability/ESG risks, March 2022, p15: "The Group will not assume any credit risk involving new projects that exhibit any of the following characteristics: [...]Long-term transactions requested by new or existing customers whose aim is the exploration, extraction, liquefaction, transportation, regasification, storage or electricity generation based on natural gas. [...] In addition to these exclusions, the CaixaBank Group may finance, subject to the restrictions described below, the following activities: [...]New companies/customers in Groups whose revenue from the exploration, extraction, transport, refinement, coke processing and electricity generation from oil accounts for over 50% of their turnover, as long as they promote the energy transition and one of the following circumstances exists: They have a suitable diversification or decarbonisation strategy; or the purpose of the operation is renewable energies."
- 98. Société Générale states in its <u>Thermal Power sector policy</u>, November 2021, p8: "When conducting an E&S assessment of a dedicated transaction, product or service in this sector, the Group considers the following criteria: [...]For new Combined Cycle Gas Turbines (CCGT) above 300 MW, whether it is compliant with a maximum emission intensity of 420 kg CO2 eg/MWh."
- 99. Covers both lending and underwriting.
- 100. Covers both lending and underwriting.
- 101. Covers both lending and underwriting.
- 102.HSBC states in its Energy Policy, December 2022, p7: "HSBC will not provide new finance, or new advisory services, to any client for the specific purposes of a new unabated gas-fired power plant unless the client demonstrates to HSBC that the new power plant is part of the client's overall transition plan to achieve abated power generation, consistent with HSBC's targets and commitments; or conversion of existing coal-to-gas-fired power plants, unless the client demonstrates to HSBC its intention to transition to abated power generation, consistent with HSBC's targets and commitments. HSBC will not provide new finance, or new advisory services, to any client for the specific purposes of a new unabated gas-fired power plant or conversion of existing coal-to-gas fired power plants that operate in environmentally and socially critical areas. EDD and pre-approval by a relevant governance committee will be required for new finance or new advisory services to any client for: a new unabated gas-fired power plant; or conversion of existing coal-to-gas-fired power plants."
- 103. Covers both lending and underwriting.
- 104.CaixaBank Asset Management states in its <u>Sustainability Risks Integration Policy</u>, July 2022, p28: "CaixaBank AM will restrict investment in companies when: [...] *Companies with Group revenues greater than 50% from exploration, extraction/production, liquefaction, transportation, regasification, storage and electricity generation with natural gas, provided that they do not promote the energy transition and one of the following circumstances does not apply: They have an adequate diversification or decarbonisation strategy; or the purpose of the operation is renewable energy."
- 105.EPH, EPH enters the Dutch market by acquiring two gas fired power plants, 25th January 2023.

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Reclaim Finance is an NGO affiliated with Friends of the Earth France. It was founded in 2020 and is 100% dedicated to issues linking finance with social and climate justice. In the context of the climate emergency and biodiversity losses, one of Reclaim Finance's priorities is to accelerate the decarbonization of financial flows. Reclaim Finance exposes the climate impacts of financial players, denounces the most harmful practices and puts its expertise at the service of public authorities and financial stakeholders who desire to bend existing practices to ecological imperatives.

contact@reclaimfinance.org

