



OUT WITH SCIENCE, IN WITH LOBBYISTS:

Gas, Nuclear and the EU Taxonomy

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INTRODUCTION

The initial plan for a EU sustainable taxonomy

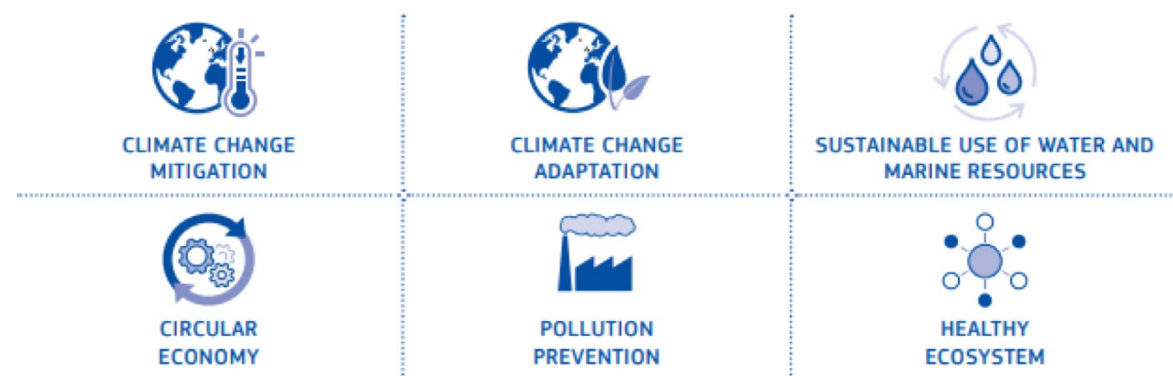
The “[European sustainable taxonomy](#)” aims at identifying activities that contribute to the ecological transition, in accordance with EU climate and environmental objectives. It is one of the key pieces of the EU [sustainable finance strategy](#) adopted in 2018 to help the bloc reach its investment needs for the ecological transition.

To obtain a “science-based” taxonomy, a technical expert group (TEG) was tasked with building its foundations. The TEG submitted its [final report](#) two years later, in March 2020.

The EU Parliament adopted the taxonomy regulation on this basis on June 18th 2020.

To be considered “sustainable” in the taxonomy, an activity should significantly contribute to at least one out of six environmental objectives without significantly harming another objective. This “do no significant harm” (DNSH) principle is supposed to ensure that a solution that helps achieve one of the EU environmental goals will not prevent it from achieving others.

The six objectives of the EU sustainable taxonomy



Source: EU Commission

Though the taxonomy outlined by the TEG was far from perfect — with notable flaws regarding bioenergy — it clearly excluded both gas and nuclear:

- The TEG set a 100g CO₂/kWh threshold for power generation that would only allow for highly efficient gas projects paired with carbon capture (CCS) systems. This threshold makes it exceedingly difficult — and potentially uneconomic due to high CCS costs and uncertainties — to finance the development of fossil gas power generation through the sustainable taxonomy.
- Applying a precautionary principle, the TEG was not able to ensure that nuclear “does not significantly harm” (DNSH) the environment and did not include it in the taxonomy. If the TEG considered nuclear energy as low carbon, it was especially concerned with the challenges of the disposal of nuclear waste.

The initial timetable for the finalization of the EU taxonomy also seemed clear. The first two objectives of the taxonomy¹ — mitigating

and adapting to climate change — would be implemented with delegated acts before the end of 2020, while the four other objectives will be further defined by a new “sustainable finance platform”, replacing the TEG, by the end of 2021.

However, gas and nuclear advocates did not admit defeat. While the TEG’s final report should have been used as a minimum standard, it became the starting point for intense [bargaining behind closed doors](#). **Lobbyists mobilized massive resources and used all their influence to get back into the taxonomy, managing to disrupt the taxonomy process and calendar. They led the Commission to delay the publication of the delegated acts several times and to commission additional work that would provide it with the “scientific” legitimacy to satisfy their pressing demands.** The delegated acts for climate mitigation and adaption were finally published in April 2021, four months after the initial deadline.²

The result: a dangerous text that leaves the door to gas and nuclear wide open.

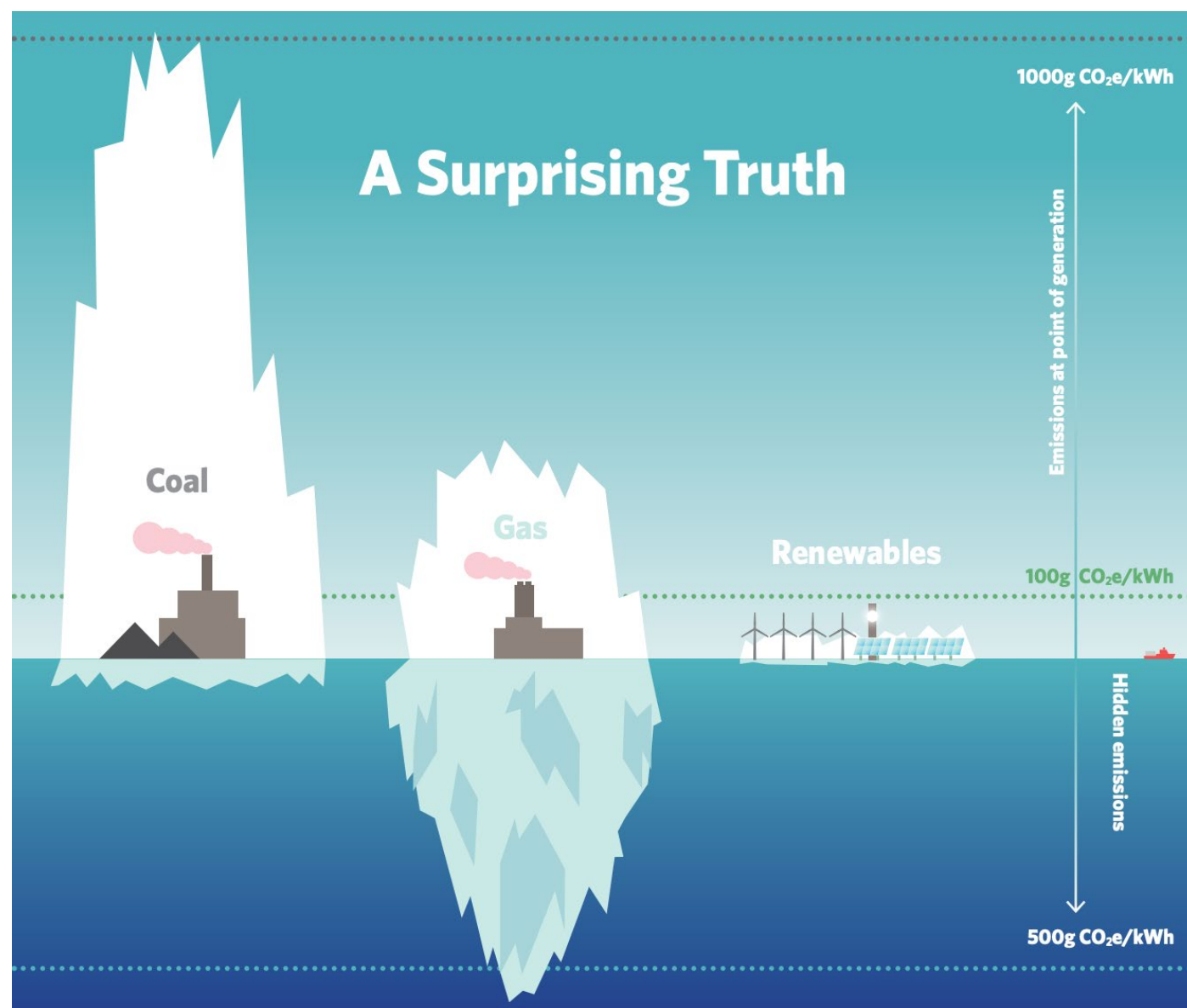
WHY GAS AND NUCLEAR HAVE NO PLACE IN THE EU SUSTAINABLE TAXONOMY

1. There is no such thing as a sustainable fossil fuel

While the industry often paints itself as an easy way for European countries to swiftly reduce GHG emissions and replace coal

power — a “transition fuel” — such claims are based solely on a plant-by-plant comparison between coal and gas-fired power and do not include [the whole gas supply chain](#) (figure1.). Furthermore, limiting global warming to 1.5°C requires a rapid decrease and progressive phase-out of gas use.

Figure 1. Hidden emissions from gas



Source: Climate Bond Initiatives (CBI)

a. Gas contributes heavily to global warming

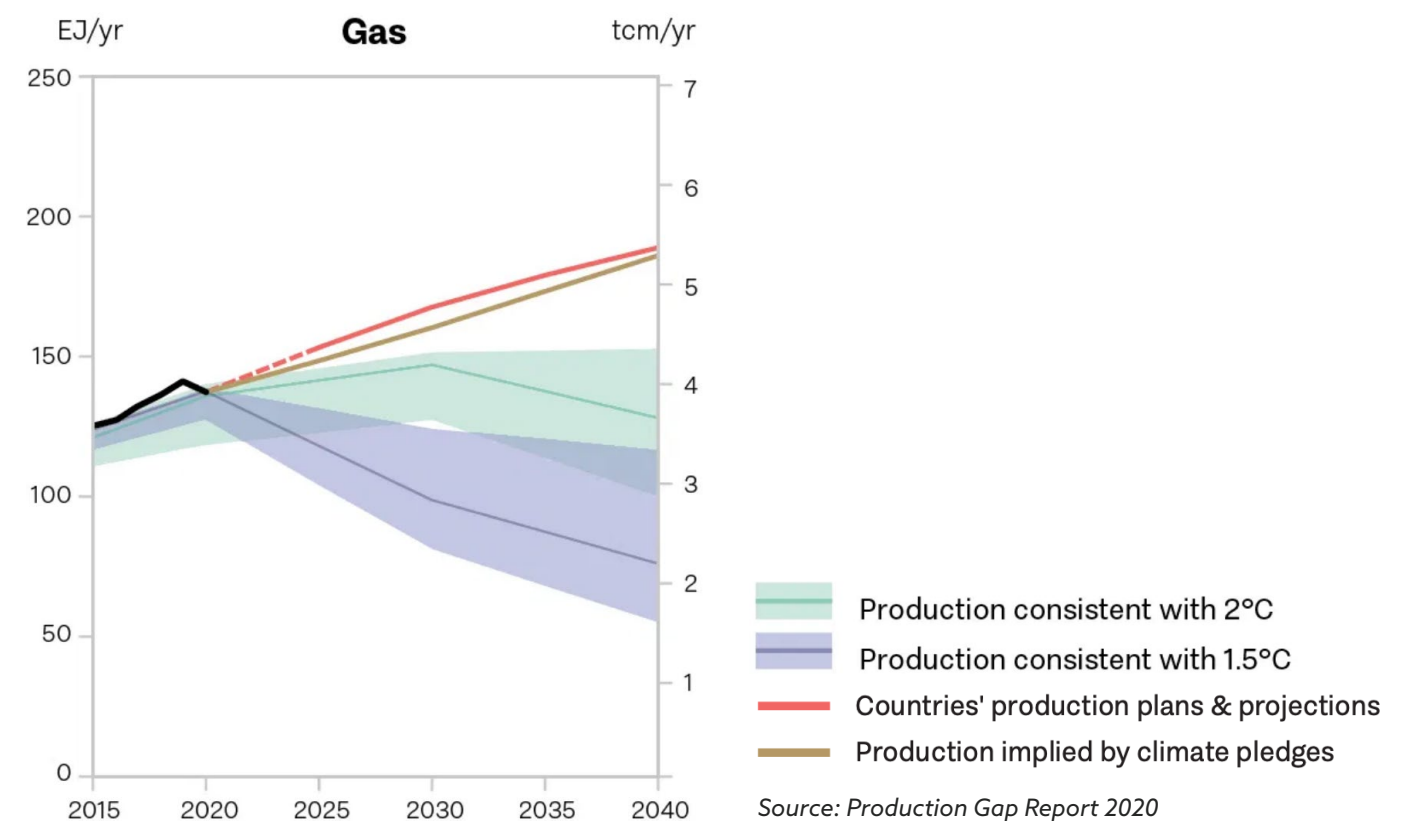
As 226 scientists and civil society organizations stressed in a [letter](#) to the EU Commission, **if gas leaks more than 3% of its methane content it becomes worse for the climate than coal.** Such leaks are not a fantasy scenario: methane leaks from the oil and gas industry have been greatly underestimated and recent studies suggest US shale gas would leak [3.7%](#) of its methane content. [Optical gas imaging research](#) reveal small methane leaks are common in **EU gas infrastructure, while massive leaks have also been recently reported.** Furthermore, **EU gas import often takes the form of highly inefficient “liquefied natural gas” (LNG) that can have a higher carbon footprint than coal when used for power generation and often**

comes from highly polluting [unconventional sources](#) like shale or tar sands gas.

b. Gas production and use must be drastically reduced to limit global warming

All scenarios limiting global warming to 1.5°C require a massive reduction of gas use and an end to new gas projects. [The UN Production Gap Report](#) indicates that **gas production would have to drop by 3% each year from 2020 to 2030 (Figure 2.).** In its recent [“net zero” scenario](#), the historically pro-fossil fuel International Energy Agency (IEA) indicates that new fossil fuel supply projects and “many of the liquefied natural gas (LNG) liquefaction facilities currently under construction or at the planning stage” are not compatible with a 1.5°C pathway. **The IEA also stresses that the power sector should be decarbonized in the**

Figure 2. Global gas production (exajoule - EJ - and trillion cubic meters - tcm - per year) under four pathways from 2015 to 2040



Source: Production Gap Report 2020

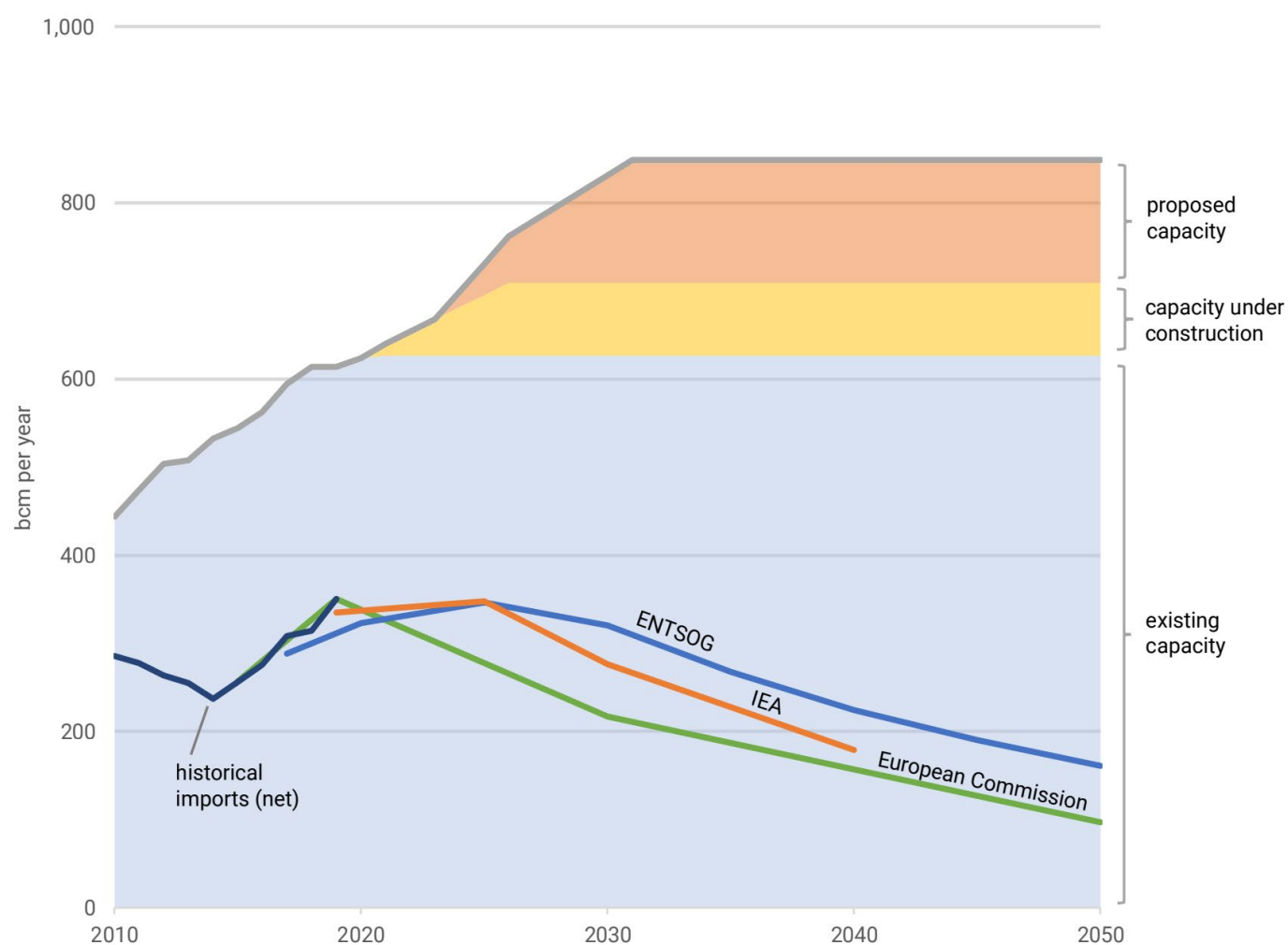
EU as soon as 2035 and by 2040 worldwide, which implies that unabated fossil fuel power plants should be closed by then, thus suggesting a short lifetime expectancy that would render these kind of new gas plants uneconomic and dangerous.

A survey of EU gas infrastructure by the [Global Energy Monitor](#) reveals (Figure 3.) that current expansion of EU gas import capacity — a planned increase of 35% — is at odds with the EU's stated goal of net-zero greenhouse gas emissions by 2050 and would create the risk of €87 billion in stranded assets while locking in emissions well beyond 2050. In fact, the existing European gas import capacity already largely exceeds its current needs and would need to be massively scaled down to limit global warming.

In 2020, gas became the biggest GHG emitter in the EU power sector. Providing that gas power plants last for about [30 years](#), shifting from coal to gas would lock in carbon emissions for decades, and even past 2050. It would also be a very bad financial decision: as the IRENA indicates, renewable energy is now [more competitive than fossil fuels](#) and shifting from coal to renewables could generate [huge savings](#). Furthermore, analyses have shown that EU gas power capacity is already [overbuilt](#) (Figure 4.) to satisfy current energy needs and would need to drastically reduce to get in line with EU climate targets.

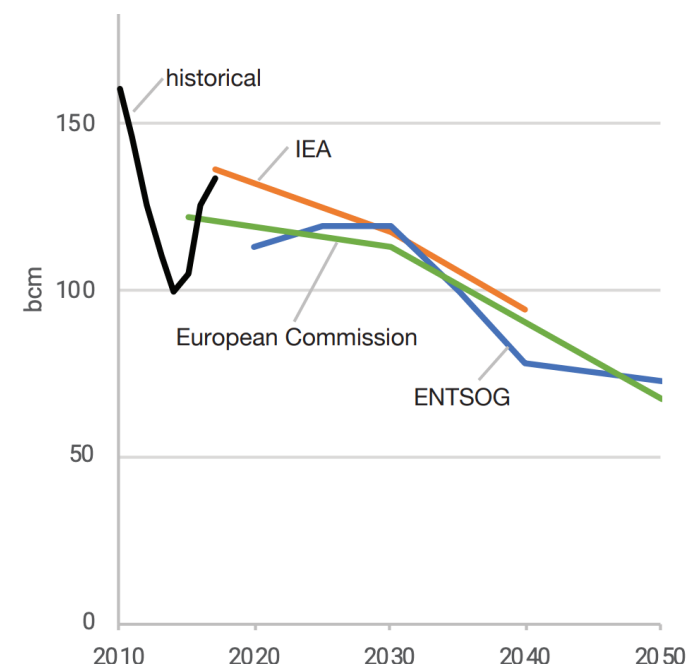
In 2020, gas became the biggest GHG emitter in the EU power sector. Providing that gas power plants last for about 30 years, shifting from coal to gas would lock in carbon

Figure 3. EU fossil gas net import capacity and net import trend until 2050



Source: Global Energy Monitor

Figure 4. Projected gas consumption for electricity generation (fossil gas, biomethane, and synthesized methane)



Note: IEA refers to the International Energy Agency and ENTSOG to the European Network of Transmission System Operators for Gas

Source: Global Energy Monitor

emissions for decades, and even beyond 2050. It would also be a very bad financial decision: as the IRENA indicates, renewable energy is now more competitive than fossil fuels and shifting from coal to renewable could generate huge savings. Furthermore, analyses have shown that EU gas power capacity is already overbuilt to satisfy current energy needs and would need to drastically reduce to get in line with EU climate targets.

2. "Low carbon" does not mean sustainable

a. Nuclear power simply does not meet the DNSH criteria

As mentioned, the main argument for nuclear inclusion is its low carbon character. While this may be sufficient to fulfill the "climate mitigation" objective of the EU taxonomy, nuclear power does not meet the 'do no significant harm' (DNSH) criteria.

In fact, as explained by the [Austrian Ministry for Climate Action](#), nuclear power poses significant threats to several of the taxonomy objectives:

- **There is always a risk of a nuclear accident**, with dramatic consequences for the environment, biodiversity and human life.
- **Nuclear power plants require very large amounts of water**. Reduced water availability led to reductions or even interruptions of electricity generation in recent years and [droughts will multiply](#) in Europe due to global warming.
- Uranium mining generates [pollution](#), including water containing low-level radioactive substances, metals and acids. **The IPCC noted that impacts from upstream uranium mining and milling are comparable to those of coal**. Uranium mine remediation is still an unresolved topic, with thousands of banned uranium mines left in various parts of the globe, and the activity has been struggling with [human rights](#) and safety throughout its history.
- Despite 40-50 years of development of the nuclear sector, **the issue of high-level nuclear waste (HLW) storage, with its very long-term consequences, is still rigged by uncertainties**. The very idea that one can sustainably manage nuclear waste that remain radioactive waste for thousands of years appears highly debatable. High-level radioactive waste is stored temporarily today, and no far-reaching solutions exist. As the TEG stresses, geological storage is under consideration but yet to be implemented. Furthermore, the long-term safety of such storage facilities remains uncertain, notably due to unforeseen geological movements, and could cause radioactive leakage into groundwater.

The IPCC [indicates](#) that "continued use and expansion of nuclear energy worldwide as a response to climate change mitigation require greater efforts to address the safety, economics, uranium utilization, waste management, and proliferation concerns of nuclear energy use".

b. New nuclear is not the solution to fulfill low carbon energy needs

For nuclear power, inclusion in the taxonomy would mean better financing conditions for new projects or the life-time expansion of reactors in operation in exchange for a supposed contribution to the achievement of European and international climate objectives. Therefore, the relevant question here is not “is nuclear power providing low carbon energy” but “is the nuclear an efficient way to provide more low carbon energy to reach our climate goals”.

First and foremost, **building new nuclear reactors takes time (Figure 6.)**, and often more time than initially planned. In recent years, a large majority of nuclear reactors took more than eight years to be connected to the power grid. Many of them took ten years or more. In the 1.5°C special report, [IPCC](#) also points to the fact that “the current time lag between the decision date and the commissioning of plants is observed to be 10-19 years”. **Concretely, a major shift to nuclear power implies that many of the current fossil-fueled power plants stay in operation** (with their lifetime possibly extended) during the reactor development period, making it impossible to achieve climate targets.

Unlike for renewable energy, a [recent study](#) by researchers Sovacool et al. published in Nature did not find a correlation between larger-scale national nuclear and significantly lower carbon emissions. It also suggests that **significant nuclear reliance blocks the large-scale deployment of renewable energy**, thus hampering the transition to a sustainable power system.

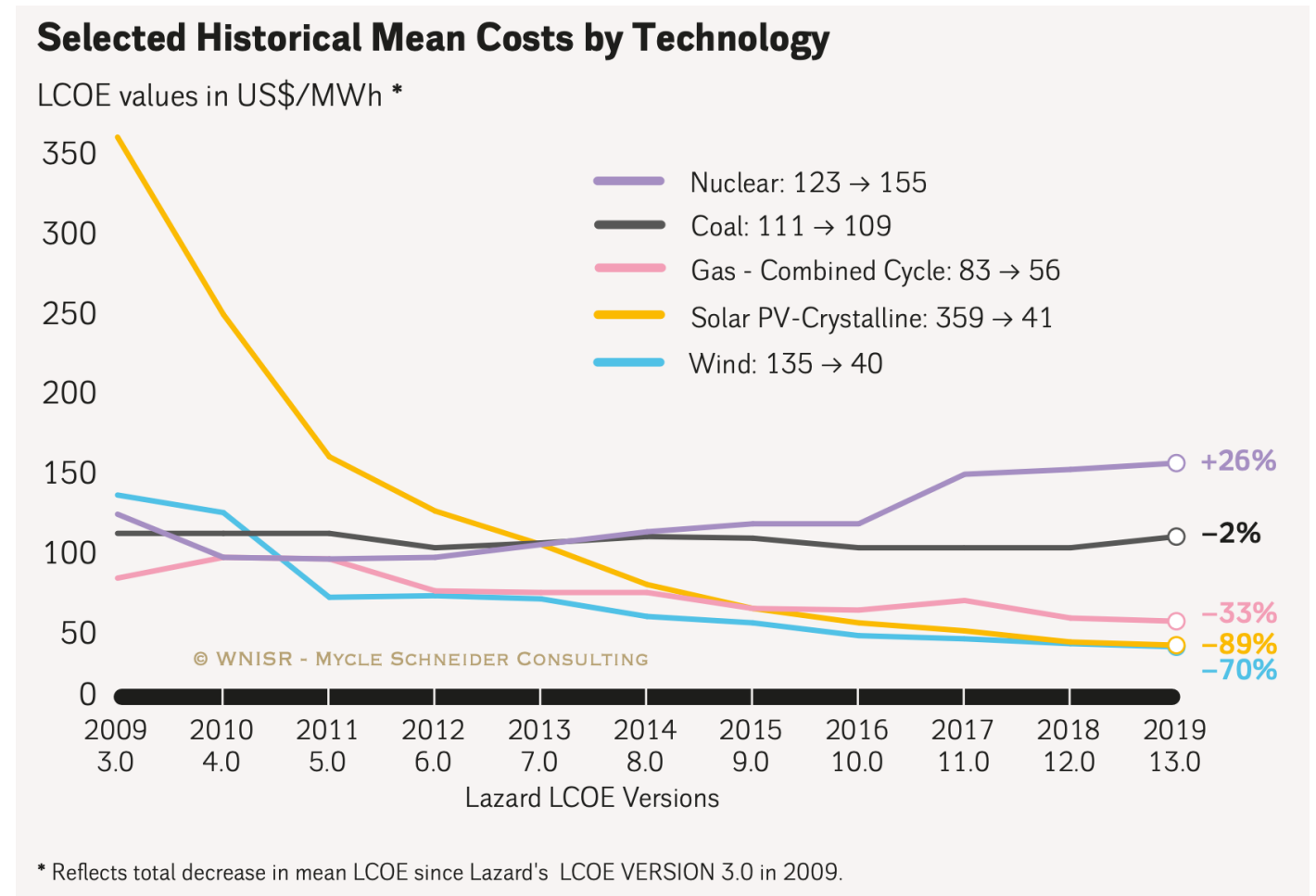
Furthermore, over the years, **nuclear has proven to be an expensive energy source that fails to keep up with cost reductions for renewables (Figure 5.)** and may require massive unexpected public spending in the coming years. According to the [World Nuclear Report 2020](#), over the past decade, levelized cost estimates for nuclear energy in the US

increased by 26 percent, while costs for utility-scale solar and wind dropped by respectively 89 percent and 70 percent. The report also underlines that small modular reactor (SMRs) — often presented as a key area of development by the industry — show “few signs that would hint at a major breakthrough [...] either with regard to the technology or with regard to the commercial side”. In recent years, last generation nuclear reactors — EPR — costs soared. The French Court of Accounts notably slammed the lack of government oversight of the Flamanville-3 EPR construction project, which is at least ten years behind schedule and recalculated the cost at over €19 billion.

According to the [International Renewable Energy Agency](#) (IRENA), the trend in cost declines continued for solar and wind power in 2020, despite the impact of the global pandemic. The global weighted average levelized cost of electricity (LCOE) from new onshore wind declined by 13% compared to 2019. Over the same period, the LCOE fell by 16% for concentrating solar power (CSP), by 9% for offshore wind and by 7% for utility-scale solar photovoltaics (PV).

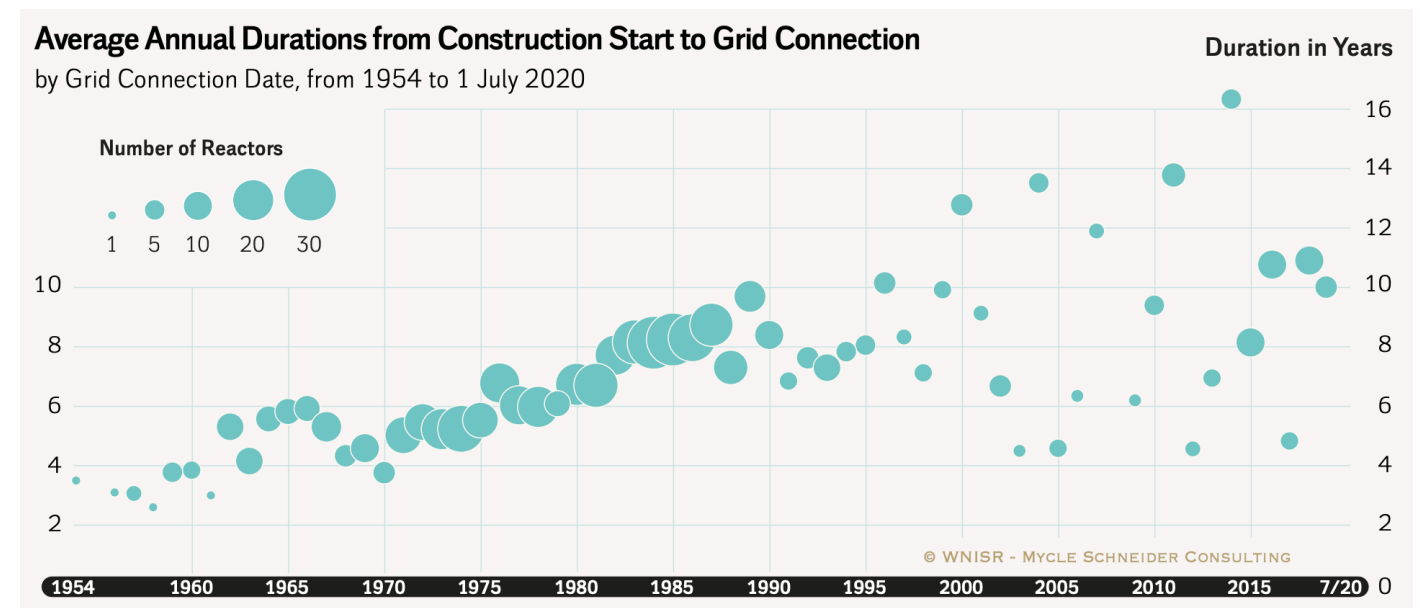
Nuclear cost estimates often fail to consider the growing cost of nuclear waste disposal and decommissioning. The World Nuclear Report 2020 is not the only one warning about the soaring cost of nuclear decommissioning, the [French Court of Accounts](#) also raised the alarm on cost increases and uncertainties for nuclear waste disposal and stockage. Nuclear companies — such as [EDF in France](#) — have often not provisioned enough money to assume the potential costs of decommissioning.

Figure 5. Levelized cost of energy (LCOE) comparison by technology



Source: World Nuclear Report 2020

Figure 6. Average annual durations from construction start to grid connection of nuclear reactors



Source: World Nuclear Report 2020

UNLEASHED LOBBYING PROMOTING “SUSTAINABLE” GAS

1. The gas army and its faithful supporters

Including gas in the EU taxonomy is at odds with EU objectives and the goals of the Paris Agreement, and is a very risky move that would lock in fossil fuel emissions and investments. To overcome the overwhelming evidence, gas companies have no choice but to bet everything on lobbying.

In August 2020, Reclaim Finance’s report [*“Behind closed doors: when the gas and nuclear lobbies reshape the EU taxonomy”*](#) revealed the great strike force of gas lobbyists.³ It identified 167 entities that spend between €68.8 million and €82.9 million each year and devote 759 employees – 419 FTEs – to promote the sector. Gas supporters had 295 meetings with EU official from January 2018 to July 2020, including 49 meetings in the 4 months following the publication of the TEG’s final report.

Table 1. EU Gas lobbying

Number of lobbyists	Number of FTEs used	Annual spending on EU lobbying (in € million)	Meetings from January 2020 to May 2021	Meetings concerning the EU taxonomy or sustainable finance strategy
776	402,60	64.9 - 78.4	323	27

Source: Reclaim Finance based on data from the EU transparency register

Major international oil and gas companies (Shell, BP, ExxonMobil, TotalEnergies SE, Equinor, Chevron and Eni) and their association – the Cefic, the IOGP and FuelsEurope – are heavily involved in gas lobbying and supported by smaller companies with very high stakes in the EU energy market, including BDEW, Engie, Enel, Vattenfall and EnBW.

Fourteen organizations promoting gas report spending more than a million each year on EU lobbying (Table 2.). The European Chemical Industry Council (Cefic) is the one who spends the most: more than 9 million euros a year with more than 40 people working full time on EU legislation.

Table 2. Top gas companies or industry groups by lobbying spending and resources (ranked by spending)

Rank	Organization	Annual spending on EU lobbying (in € million)	Number of lobbyists	Number of corresponding FTEs
1	European Chemical Industry Council (Cefic)	9 - 9.25	83	41.8
2	Shell	4.25 - 4.5	16	10.2
3	BP	3.5 - 3.75	9	6
4	FuelsEurope	3.25 - 3.5	15	10.5
4	Exxon Mobill	3.25 - 3.5	12	5
6	BDEW Bundesverband der Energie- und Wasserwirtschaft e. V.	2.75 - 3	24	13.8
7	Enel	2 - 2.25	18	6
7	Engie	2 - 2.25	12	11.8
7	EDF	2 - 2.25	14	9
7	TotalEnergies SE	2 - 2.25	6	3.5
7	Equinor	2 - 2.25	11	6.5
12	Chevron	1.5 - 1.75	3	2.5
13	Eni	1.25 - 1.5	9	4.5
13	General Electric	1.25 - 1.5	8	3.5
15	Linde Plc	0.9 - 1	12	5.2
15	Vattenfall	0.9 - 1	7	4.2
15	International Association of Oil & Gas Producers (IOGP)	0.9 - 1	9	7.2
18	EnBW Energie Baden-Württemberg AG	0.8 - 0.9	6	3.2

Source: Reclaim Finance based on data from the EU transparency register

Companies often externalize lobbying, hiring specialized consultancies to do their bidding. While such practices are very difficult to follow, the data from the transparency register allows us to identify a few consultancies that significantly work⁴ for the gas industry and

participated in gas related EU work (Table 3.). The consultancies Nove and Weber Shandwick notably report many gas companies and industry groups as clients, including oil and gas majors like Eni, Exxon and Shell.

Table 3. Consultancies with gas companies or industry groups as clients and reporting gas-related work

Organization	Annual spending on EU lobbying for gas-related clients (in €)	Clients
Nove	200 000	Gas Infrastructure Europe / A2A / Snam / Eni / Equinor / Exxon Mobill / IOGP
Aula Europe	200 000	Neste Oil / Wärtsilä Corporation
Weber Shandwick, Current Global, Golin brand names of CMGRP Belgium SCRL	115 000	Total / Swedish Petroleum and Biofuel Institute / ENI / Gas Natural Fenosa / Snam / Statoil / Neste Oil / Oil Companies International Marine Forum / Royal Dutch Shell / Repsol S.A.
Miltton Europe	115 000	Gasum Oyj / Fortum
Choose Total Communication	100 000	Public Gas Corporation (DEPA)
Rud Pedersen Public Affairs	50 000	IOGP / Fortum
Athenor consulting	50 000	GD4S (Gas distributors for sustainability)
Brucovie consult	25 000	Österreichische Vereinigung für das Gas und Wasserfach
Kellen	10 000	European Association for the Streamlining of Energy Exchange - gas (EASEE-gas)

Source: Reclaim Finance based on data from the EU transparency register

Apart from these consultancies, additional research reveals several other consultancies have taken on gas industry clients, though they do not directly declare gas-related work

in the EU transparency register and therefore do not appear in our initial research. A few examples are summarized below (Table 4.).

Table 4. Examples of other consultancies with gas companies as clients

Organization	Annual spending on EU lobbying for gas-related clients (in €)	Clients
FTI Consulting Belgium	190 000	Exxon Mobill / Trans Adriatic Pipeline / GRT Gas / Eurogas / Hydrogen Council / Air Liquide
Finsbury Glover Hering Europe GmbH	100 000	RWE
Edelman Public Relations Worldwide	100 000	Chevron / General Electric
Utopia Lab	50 000	Enel

Source: Reclaim Finance based on data from the EU transparency register

“
Without an end to the use of unabated fossil fuels, we will not be able to reach the climate targets. To put it mildly, gas is over.
”
Werner Hoyer,
President of the European Investment Bank (EIB)

Gas-related organizations often managed to secure very high numbers of meeting with EU Commissioners and their teams (Table 5.). **Ten organizations had more than ten meetings from January 2020 to May 2021. For the European Chemical Council (Cefic),**

this number reaches an astonishing 45 meetings. Major lobby groups — such as IOGP and Eurogas — also had several meetings specifically linked to the EU taxonomy and sustainable finance (Table 6.).

Table 5. Top gas companies and industry groups by number of meetings with EU commissioners and their teams — From January 2020 to May 2021

Rank	Organization	Number of meetings
1	European Chemical Industry Council (Cefic)	45
2	Enel	29
3	Shell	18
3	Neste Oyj	18
5	Eurogas	17
6	International Association of Oil & Gas Producers (IOGP)	16
7	General Electric Company	13
8	EDF	12
9	FuelsEurope	11
10	Fortum Oyjxé	10
11	Exxon Mobil	9
11	TotalEnergies SE	9
11	Vattenfall	9

Source: Reclaim Finance based on data from the EU transparency register

Table 6. Gas companies and industry groups’ meetings specific to the EU taxonomy or sustainable finance strategy — From January 2020 to May 2021

Organization	Number of meetings
Enel	5
Wärtsilä Corporation	3
International Association of Oil & Gas Producers (IOGP)	3
Neste Oyj	3
Eurogas	2
Engie	2
EnBW Energie Baden-Württemberg AG	2
Siemens	2
EDF	2
European Chemical Industry Council (Cefic)	1
EUTurbines	1
NGVA Europe	1
Gas Distributors for Sustainability	1
EVN AG	1
OMV Aktiengesellschaft	1

Source: Reclaim Finance based on data from the EU transparency register

Companies and industry organizations lobbying for gas often directly benefit from their lobbying through EU funds and funding:

- The trans-European energy infrastructure (TEN-E) regulation subsidized members of the European Network of Transmission System Operators for Gas (ENTSO-G) which is still actively promoting gas industry interests by as much as [€1.1 billion](#).
- Several companies lobbying actively for gas are reporting direct funding from EU institutions. For example, EDF reports

receiving €9 million and Shell €4,9 million (i.e. more than their EU lobbying expenses).

Fossil gas lobbying efforts also largely benefited from the support of [several EU member states](#) that bet on gas to replace their current coal power fleets — notably [Slovakia](#), [Czechia](#), Bulgaria, Romania, Poland, Malta, Greece, Cyprus and [Hungary](#). [Opponents](#) to the inclusion of gas — Austria, Denmark, Ireland, Luxembourg and Spain — struggled to push back given that **Eastern member states could have traded their support for nuclear energy in exchange for support on**

gas inclusion. This could especially be true for France: while the French government seemed at first to oppose gas inclusion, it became more and more silent on the issue. [Questioned](#) by a French representative, the French government was finally forced to state its support for a “science-based” inclusion of gas in May 2021.

Furthermore, **the intense lobbying deployed by fossil fuel companies and their interest groups to push for hydrogen development – notably so-called “blue hydrogen” relying on fossil fuels with carbon capture and storage (CCS) – in European recovery plans directly or indirectly support gas inclusion in the taxonomy.** [Massive hydrogen lobbying in France](#) could notably have played a role in the government’s increasing support for gas.

2. Following the trail of inconsistent gas proposals

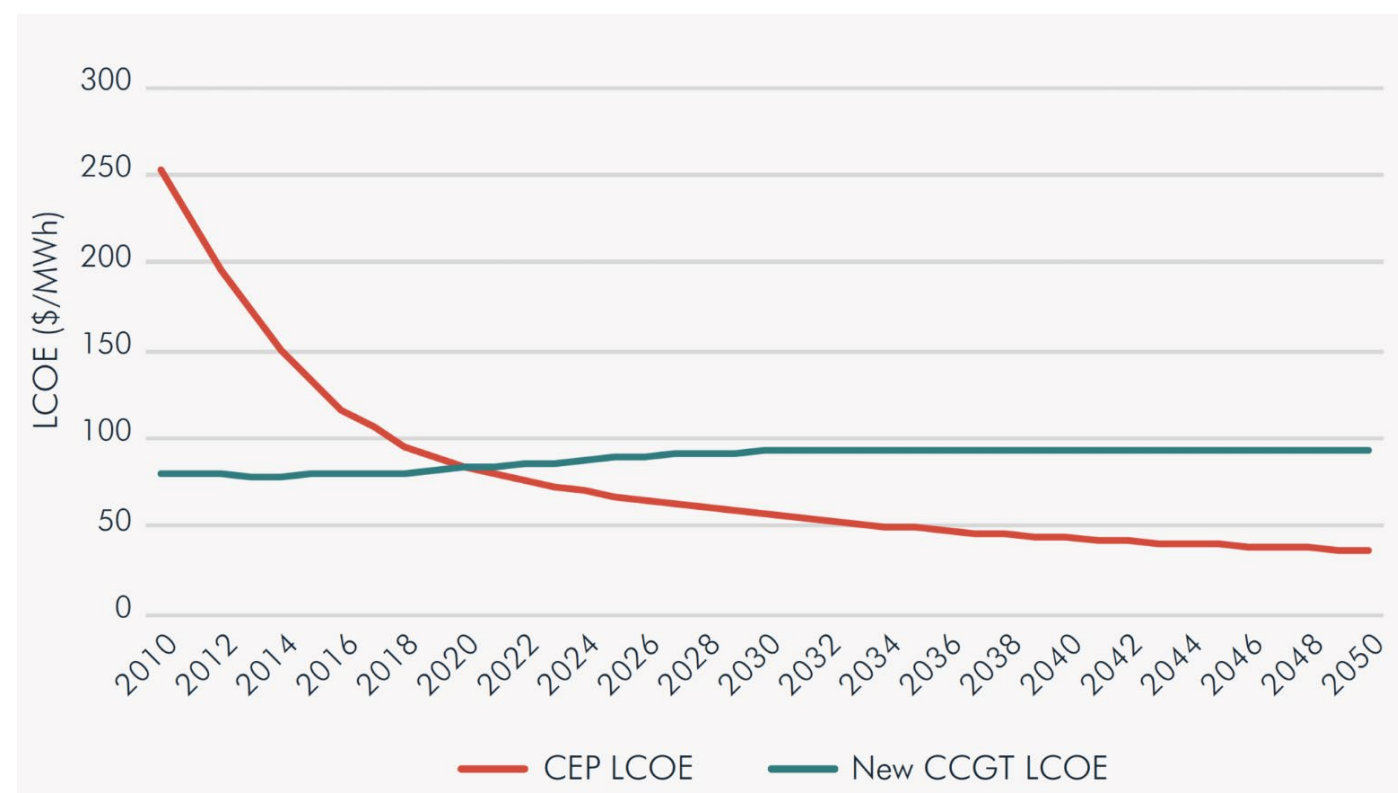
Despite an ample body of evidence showing that fossil gas has no home in the transition,

a fact recognized by the [European Investment Bank president](#) himself, gas lobbying was largely successful. Companies managed to pass it off as a “transition fuel” in the eyes of [major EU politicians](#), like the President of the EU Parliament Environment Commission [Pascal Canfin](#) and [many MEPs](#) that [wrote to the EU Commission](#).

The strength of the gas lobby drove the EU Commission to successively consider several proposals to include it to the taxonomy. These proposals were not openly discussed; civil society organizations and EU citizens only became aware of them through leaks.

[A first proposal](#) would have allowed gas-fired power plants operating less than 2,000 hours per year to be considered ‘sustainable’ because they supposedly ‘ensure the reliability of electricity supply’. Initial analyses show that half of the EU’s gas-fired power plants could be considered sustainable based on this proposal.

Figure 7. Levelized cost of energy for gas power plants (CCGT) versus clean energy alternatives (CEP) for the UK power system



Source: Carbon Tracker

Yet, the “grid stability” argument used is misleading at best:

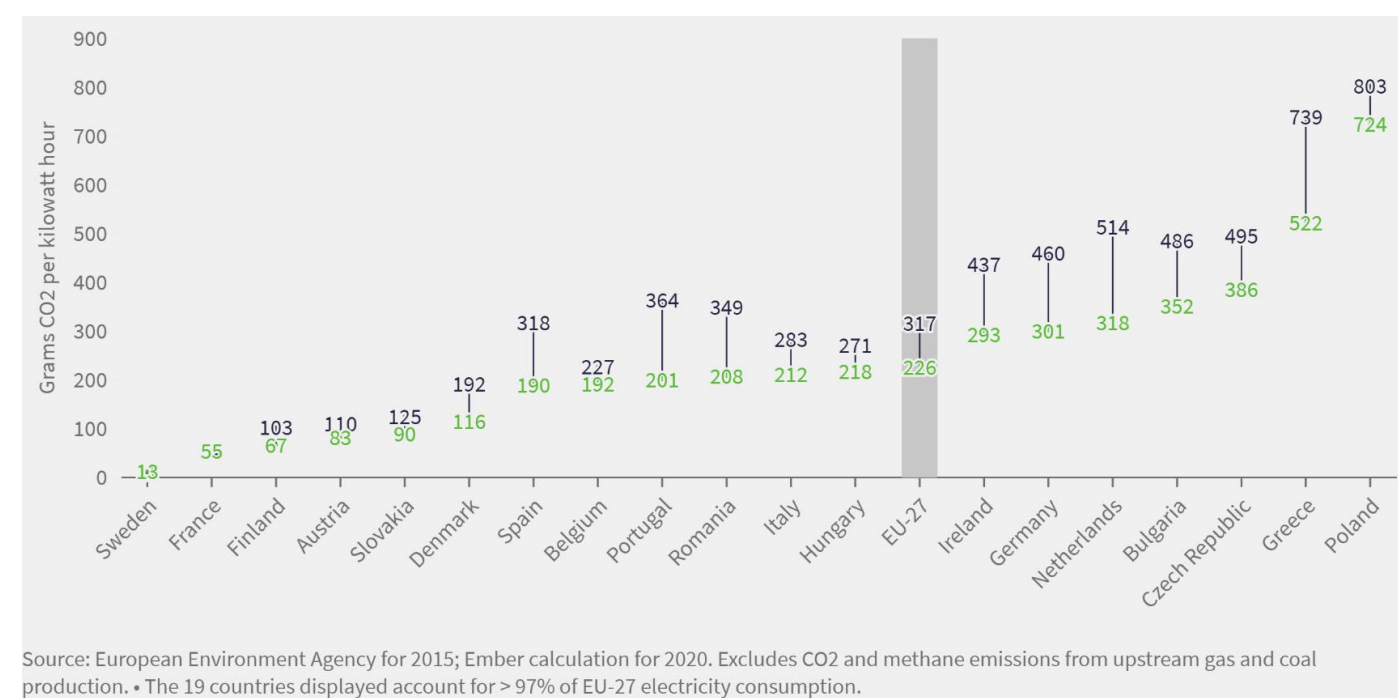
- Grid reliability is not a sustainability issue and is already fully taken into account in other EU policies (e.g. EU capacity mechanisms).
- Sustainable solutions exist to ensure grid stability, and they are even economically competitive as shown in a recent Carbon Tracker [report](#) on the UK electricity system (Figure 7.). European renewable energy potential is estimated at [537 times](#) its current electricity demand; renewable energy alone could therefore also be “over-built” to satisfy demand no matter the weather conditions.
- Energy ‘reserve’ facilities, which are intended to cover a drop in production or an unexpected increase in demand, are only active for very short periods of time each year, well under 2000 hours. Moreover, the provision would also apply to new installations, which contradicts the claim that it is only intended to guarantee system stability.

A [second proposal](#) would have labeled new gas cogeneration plants (CHP) as sustainable

until the end of 2025 if they replace coal plants. However, [early analysis](#) finds that there are many more coal plants scheduled to close in the EU than gas cogeneration plants scheduled to open,⁵ leaving room for more gas CHP plants to be built with a sustainable label. Therefore, with this criterion up to 100% of new cogeneration gas plants constructed until the end of 2025 could be eligible. This proposal would create a fossil fuel lock-in for so-called “Just Transition” regions and undermine the decarbonization of EU electricity, (Figure 8.) by allowing major new infrastructure that produce electricity well-above the taxonomy climate mitigation threshold (up to 270 g CO₂/kWh for CHP plants against 100gCO₂/kWh for the mitigation threshold) and even current [EU electricity carbon intensity](#) (226 g CO₂/kWh according to Ember in 2020).

These two proposals do not rely on the same justifications, thus revealing that their final objective is to create some room for gas in the EU taxonomy and not to address legitimate concerns over the EU transition. Although in the end, none of these proposals were adopted in the April 2021 delegated acts, the European Commission managed to open yet another door to gas.

Figure 8. EU power carbon intensity in 2015 and 2020



Source: European Environment Agency for 2015; Ember calculation for 2020. Excludes CO₂ and methane emissions from upstream gas and coal production. • The 19 countries displayed account for > 97% of EU-27 electricity consumption.

Source: Ember

3. Brace for fossil gas in the taxonomy

The final version of the delegated acts on climate mitigation and adaption do not close the debate on whether to include fossil gas. In fact, and the same goes for nuclear energy, the Commission simply deferred its decision to complementary legislation.

In a Q&A published with the April 2021 delegated acts, **the EU Commission explains that its future delegated act “will cover natural gas and related technologies as transitional activity in as far as they fall within the limits**

of the EU Taxonomy Regulation” and that it will also “consider specific legislation covering the gas activities that contribute to reduce greenhouse gas emissions but cannot be covered within the EU Taxonomy as they do not meet the screening criteria”. This move is confirmed in the Commission’s [communication](#) on the [renewed sustainable finance strategy](#).

If this paves the way to including gas in the EU taxonomy, one could say this is already the case in the April 2021 version, given the insufficiently strict criteria on hydrogen manufacture and on the blending of “low carbon gases”. The thresholds for hydrogen

manufacture accommodates energy companies’ demands and [massive hydrogen-focused lobbying](#), making it easier for hydrogen to be manufactured using natural gas or [grid energy coming from non-renewable sources](#). Similarly, the criteria adopted for transmission and distribution networks allow for the inclusion of any infrastructure that “enables the increase of the blend of hydrogen or other low carbon gasses in the gas system” without establishing any threshold for this blending, therefore facilitating the financing of infrastructures that will predominantly transport fossil gas.

It is worth noting that **gas power plants could also benefit from support through the [climate adaptation](#) part of the EU taxonomy**. To be eligible under this criterion, an investment must address a physical climate risk, for example new turbines for a gas power plant facing water stress because of climate change. If such investment would in theory be blocked by the DNSH threshold for climate adaptation, this threshold is set at 270g CO₂e/kWh and could be reached by gas power plants thanks to the use of low carbon fuels or carbon capture and storage.



SACRIFICING THE DNSH AT THE ALTAR OF NUCLEAR

1. The complex web of nuclear influence

The nuclear lobby is well established in Brussels. In a [study](#) published in August 2020, Reclaim Finance found that 25 organizations were conducting pro-nuclear lobbying, relying on 85 lobbyists and spending between 7 and 8.9 million euros per year. Nuclear supporters had 36 meetings with EU officials from January 2018 to July 2020, including ten meetings in the four months following the publication of the TEG’s final report.

An update suggests that **there are now 27 organizations spending between 6.3 and 7.9**

million euros per year and mobilizing 119 people – 60.1 FTEs – to further the nuclear agenda (Table 7.). From January 2020 to May 2021, they obtained 44 meetings with the Commission. That’s one meeting every eleven days. Nine of these meetings were devoted to the EU taxonomy or sustainable finance strategy.

The frequency of meetings between EU Commissioners and nuclear lobbyists significantly increased compared to our previous study, jumping from 1.2 to 2.59 meetings per month. These findings notably confirm an increase in the number of meetings between lobbyists and the EU Commissioner after the publication of the

Table 7. Overview of EU Nuclear Lobbying

Number of lobbyists	Number of related FTEs	Annual spending on lobbying (in € million)	Meetings from January 2020 to May 2021	Meetings concerning the EU taxonomy or sustainable finance strategy
120	60.3	6.3 - 7.9	44	9

Source: Reclaim Finance based on data from the EU transparency register

TEG report that excluded nuclear.

While, as reported in Reclaim Finance’s [previous study](#), mobilization by nuclear advocates seems small compared to the gas lobbying army, this should not come as a surprise: the nuclear sector is highly specialized and made up of far fewer companies than the gas sector. Many companies in the nuclear industry also have deep ties with Member states.

Furthermore, **taxonomy and finance-related meetings between nuclear lobbyists and**

EU officials account for a very significant share of total meetings (more than 20%). In fact, three nuclear advocates seem to have especially weighted in these debates: Foratom, EDF and Teollisuuden Voima Oyj (Table 8.).

EDF is – by far – the organization spending the most on lobbying (between 2 and 2.25 million euros a year) and dedicating a significant number of employees (14 persons / 9 FTEs) (Table 9.).

Table 8. Top nuclear companies by number of meetings concerning the EU taxonomy or sustainable finance – From January 2020 to May 2021

Organization	Number of meetings	Number of meetings concerning the EU taxonomy or sustainable finance strategy
Foratom (European Atomic Forum)	7	3
Teollisuuden Voima Oyj	4	3
EDF	12	2

Source: Reclaim Finance based on data from the EU transparency register

Table 9. Top nuclear companies and industry groups by spending and resources (ranked by spending)

Rank	Organization	Annual spending on EU lobbying (in € million)	Number of person involved	Number of FTEs
1	EDF	2 - 2.25	14	9
2	Vattenfall	0.9 - 1	5	3.5
3	Orano	0.6 - 0.7	8	4.2
4	Commissariat à l’énergie atomique et aux énergies alternatives (CEA)	0.5 - 0.6	10	2.5
4	Uniper	0.5 - 0.6	7	4
6	Foratom (European Atomic Forum)	0.3 - 0.4	8	4
6	Groupeement des Industriels français du nucléaire (Gifen)	0.3 - 0.4	6	1.5
6	Foro de la Industria Nuclear Española	0.3 - 0.4	3	2.2
6	ČEZ	0.2 - 0.3	10	6
10	Sustainable Nuclear Energy Technology Platform (SNETP)	0.13	2	2
11	Teollisuuden Voima Oyj	0.1 - 0.2	3	0.8

Source: Reclaim Finance based on data from the EU transparency register

As previously stressed for gas lobbying, the EU transparency register does not allow for a precise accounting of lobbying through consultants. For nuclear power, our methodology only allowed us to identify one consultancy directly involved: Aula Europe, with Teollisuuden Voima oyj and Horizon Nuclear as clients. Additional research revealed that several other consultancies – such as Blic Oy or Séance Publique – have nuclear industry clients, though they do not specifically declare nuclear-related activities in the EU transparency register.

Of course, nuclear lobbying largely relies on industry experts that benefit from the very sensitive and technical characteristics of this energy. **The EU Commission’s very own Joint Research Committee (JRC) has [ties with the nuclear industry](#):**

- It was initially created by article 8 of the Euratom treaty and still devotes about a quarter of its work to nuclear thanks to funding from the Euratom program;
- It has strong ties with Foratom and the Sustainable Nuclear Energy Technology Platform (SNETP), and partners with the industry for some of its research;
- Several of its members publicly support nuclear energy development.

Moreover, **several well-established bodies wield great influence and scientific credibility, using their publications and work to position nuclear as a source of energy for the sustainable transition.** A few key examples can be found in the chart below (Table 10.).

Table 10. Examples of publications related to “sustainable nuclear” claims

Organiza- tion	Publications	Key excerpts
Foratom	Investment Framework Task Force Report – May 2021	It is widely recognised that nuclear will play an important role in achieving the decarbonisation & sustainable energy targets. For example, international organizations such as the International Governmental Panel on Climate Change and the International Energy Agency clearly reference nuclear in all their decarbonisation scenarios. Furthermore, the EU’s Joint Research Centre recent report: “Technical assessment of nuclear energy with respect to the ‘do no significant harm’ criteria of Regulation (EU) 2020/852 (‘Taxonomy Regulation’)” makes it clear that nuclear is as sustainable as any other power producing technology recognised as complying with the EU’s Sustainable Finance Taxonomy. ⁶
	Nuclear Low Carbon Technology – A key low carbon technology for a decarbonized Europe – May 2021	
	Sustainable Finance: FORATOM calls for equal treatment of all low-carbon technologies – September 2019	
	Nuclear Europe Leaders Manifesto – June 2019	
Gifem	Position paper on the EU Taxonomy – April 2021	For GIFEM, a 100% or majority renewable scenario is therefore not realistic. ⁷
	GIFEM warns against the unrealism of a 100% renewable scenario – January 2021	
	The nuclear industry calls for the development of a French nuclear hydrogen industry – November 2020	

Nuclear Energy Agency (NEA)	Management and disposal of high-level nuclear radioactive waste – September 2020	There is a science-based confidence today that removing SNF/HLW from the human environment through disposal in deep geological repositories is both safe and environmentally sound, and that the science and technology is well developed. But given that decisions concerning a deep geological repository are made today while engaging society for centuries, extensive dialogue with all stakeholders are indispensable. ⁹
Atomic Energy Agency (IAEA)	An exchange of views with the European Parliament: The IAEA and the EU: Tapping Nuclear to Advance Development, Health and Environmental Sustainability – March 2021 Expanding the scope: nuclear in a sustainable development perspective – July 2020	The European Green Deal is rightly ambitious, seeking to cut at least 55% of greenhouse gas emissions by 2030. The European Parliament’s resolution ahead of COP25 could not have been clearer about the EU’s resolve to play a leading role in meeting that global challenge already affecting us. The resolution states that the European Parliament believes nuclear energy “can play a role in meeting climate objectives because it does not emit greenhouse gases, and can also ensure a significant share of electricity production in Europe”. The EU’s Delegated Acts under the Taxonomy for Sustainable Financing are an important part of that plan. For it to achieve its full potential and fulfil the vision of the European Parliament, I hope you will agree it needs to consider the merits of all decarbonizing energy sources, especially the ones with significant scale, like nuclear. Not doing so would be limiting options at a time when no one can afford to do so. ¹⁰

Finally, **the nuclear industry has one last ace up its sleeve: France and Finland, the two EU Member states that have been championing nuclear development for themselves and abroad for decades.** While nuclear power accounts for approximately 10% of the world electricity production, it supplies [70%](#) of French electricity and [35%](#) of Finnish electricity. The French state is the main shareholder of Orano and EDF, which means it has direct stakes in the export of nuclear technology. Historically, nuclear has been one of France’s major industry exports. [Finland](#) also hold shares in companies active in the nuclear sector – like Fortum – and has positioned itself as a [leader in nuclear waste management](#) and is increasing its nuclear power capacity.

France especially managed to build a strong coalition of pro-nuclear Member states betting on nuclear to achieve their own transition. All [seven states](#) – [Czech Republic](#), [Poland](#), [Hungary](#), [Slovakia](#), [Slovenia](#), [Romania](#) and France – that publicly called on the EU Commission to include nuclear power, are already considering building new nuclear reactors. In France, EDF is heavily investing in its current nuclear fleet and preparing for a final decision on new nuclear plants. decision on new nuclear plants.

Using the “low carbon” argument, nuclear advocates also built “civil society” coalitions to support nuclear development. Mimicking “green” organizations, new structures presenting themselves as environmental

NGOs started using mobilization tools — such as pushing private individuals to write letters to the Commission or to communicate online — and staging protests to contribute to the nuclear agenda. Several examples of such organizations tied to major nuclear industry organizations can be identified, including:

- [Nuclear for climate](#): presenting itself as “a grassroots initiative gathering over 150 associations with the goal of educating policymakers and the public about the necessity of including nuclear energy among the carbon-free solutions to climate change”, Nuclear for climate was founded by major nuclear organizations with deep ties with the industry — the European Nuclear Society, the French Nuclear Society (SFEN) and the American Nuclear Society (ANS) — ahead of the COP21 conference in Paris. The organization lays claim to “a global presence on social media and in person”. It organized events with nuclear advocates and political leaders and recently published a [declaration](#) linking carbon neutrality to nuclear use.
- [Voices of nuclear](#): while Voices of nuclear defines itself as “a citizen association of volunteers, independent of any economic, institutional, union or political attachment” its [board](#) includes the CEO of Framatome and the general director of the World Nuclear Association. The association was founded by former Areva (now rebranded Orano) employees and a consultant working for the nuclear industry (including the IAEA). It is also managed with the help of several nuclear engineers and [identifies](#) major nuclear industry organizations like Foratom, Framatome, Orano and SFEN as “friends”.

These organizations were very active in the taxonomy debate, notably [writing](#) to the EU Commission, [encouraging](#) others to write or launching dedicated [petitions](#).

2. Nuclear lobby beating the DNSH principle

For nuclear to be included in the taxonomy, nuclear advocates needed its harmful

characteristics to be overlooked and EU authorities to focus on its low carbon character instead.

A first step in that direction was **the adoption of the “technology neutrality” principle by the EU Parliament**. This principle was strongly supported by [nuclear companies](#) and [sectoral unions](#). The principle of ‘technological neutrality’ implies the use of common criteria to assess the contribution of several competing technologies to a single taxonomy objective. For example, for electricity production, the EU taxonomy will decide between technologies using CO2 emissions and the emission of atmospheric pollutants. While this principle could contribute to a “science-based” taxonomy, its application to nuclear power minimizes its specificities — notably regarding radiation. For example, comparing solar power and nuclear on the sole basis of GHG emissions draws a rather incomplete picture that closely aligns with the narrative of nuclear advocates.

However, the use of the “technological neutrality” argument did not suffice. **Following the TEG’s decision to leave out nuclear, the lobby started strongly pushing back, calling for “independent” expertise. It won a major victory when the Commission decided to task the Joint Research Committee (JRC) with drafting a specific report that could lead to the final inclusion of nuclear by the end of 2021.** The JRC’s structural links with the Euratom Treaty, its relations with the nuclear industry and the views expressed publicly by JRC members on nuclear energy [call into question the JRC’s ability to conduct an objective assessment](#) of the sustainability of nuclear energy.

In this report, the JRC concluded that there is no reason to exclude nuclear. When it comes to nuclear waste, the JRC presented the problem as solved. No need to wonder why [nuclear advocates](#) took the publication of the report as an early win. However, **the review of the JRC report by the Okology Institut reveals that it failed to evaluate several aspects of the DNSH principle**. Most notably, the JRC did not evaluate the DNSH for:

- The probability of severe accidents and

increased accident risk in old nuclear power plants with lifetime extension;

- The long-term consequences of nuclear waste repositories;
- The potential impact of radioactive contamination of water and marine resources;
- The potential impact regarding water conflicts;
- The effect of decreased cooling water availability due to climate change.

In fact, **the JRC simply neglected to address the residual nuclear risk, assessing only the normal operation of nuclear power plants** and fully disregarding the risk level associated with nuclear technology. The [German Federal Office for the Safety of Nuclear Waste Management](#) (BASE) indicates that the JRC “provides an incomplete view of the consequences and risks of using nuclear energy for people and the environment or for future generations or does not even mention them in its assessment”.

The flawed JRC report has been reviewed by two sets of experts, the (notably pro-nuclear) [Group of Experts](#) on radiation protection and waste management under Article 31 of the Euratom Treaty and the [Scientific Committee](#) on Health, Environmental and Emerging Risks on environmental impacts (Scheer). These reviews are the last step before the EU Commission could recommend the integration of nuclear power to the EU taxonomy. The [Commission’s communication](#) on its [renewed sustainable finance strategy](#) indicates that the additional delegated act to be taken before the end of 2021 ‘will also cover nuclear energy activities, subject to and consistent with the specific expert review process that the Commission set out for this purpose’.

While the Group of experts on radiation protection and waste management unsurprisingly [align](#) with the JRC, the Scheer is more [prudent](#). **The Scheer underlines that ‘there are several findings where the report is incomplete and requires to be enhanced with further evidence’.** More specifically, the

Scheer formulates important objections on several aspects:

- For the DNSH criteria: the Scheer indicates that “in many cases the findings (comparing Nuclear Power Plant (NPP) to other energy generating technologies already in Taxonomy) are expressed as do less harm than at least one of the comparator technologies, which in the SCHEER view is different to “do no significant harm.” The Scheer stresses that this comparative approach is not sufficient to ensure “no significant harm”.
- For the impact of radiation on the environment: the Scheer finds that the JRC’s opinion that “the standards of environmental control needed to protect the general public are likely to be sufficient to ensure that other species are not put at risk” is “simplistic and does not allow estimation of the potential risks”.
- For the question of harm to human health or to the environment: the Scheer rightly stresses that the fact that the JRC derive the absence of harm from compliance with the taxonomy screening criteria is not sufficient, for example for mining and milling where the impacts are felt outside Europe.

The Scheer’s opinion largely supports criticisms around gaps and carelessness in the JRC’s report. However, supported by a rather lenient opinion from the Group of experts on radiation protection and waste management and facing important lobbying from states and companies, the EU Commission may decide to simply disregard these objections.

CONCLUSION

In the [final version](#) of the EU taxonomy delegated acts on [climate mitigation](#) and [adaptation](#), published in April 2021 several months after the initial deadline, the Commission [insists](#) that its work is based “on robust, science-based, technical criteria” but adds that “at the same time, these criteria must be usable by market participants and acceptable to the co-legislators”. Behind this doublespeak lies a simple truth: **the Taxonomy was initially defined as a science-based list, but economic and political pressures pushed the Commission to water down the science.**

The delegated acts published in April 2021 already brand [dangerous forest burning](#) and environmentally unsound biomass as sustainable, thus contradicting the Commission’s [own impact assessment](#) on bioenergy and risking increasing EU’s [overreliance on biomass](#).

By planning to include fossil gas and providing a specific process to welcome nuclear through the backdoor, the EU is likely to end up with a sustainable Taxonomy that undermines the transition of the energy sector. It is worth noting that, apart from fossil gas, nuclear and biomass, harmful activities could also be included further down the line following the EU Commission’s decision to explore the inclusion of [“transition activities”](#).

The EU taxonomy process demonstrates the great influence of industry lobbies at the EU level. By mobilizing significant financial and human resources, organizing in strong interest groups, gaining the support of member states and using their “expert” hat, energy industries can steer EU decision-making. **Ultimately, gas and nuclear lobbies managed to redefine the “science” used for the “science-based” taxonomy, despite overwhelming scientific evidence saying otherwise.**

However, gas and nuclear are not yet in the taxonomy. **The EU Commission, EU Parliament and EU Member States have a last chance to fend off gas and nuclear lobbyists and ensure that the taxonomy remains functional by banning natural gas — like all other fossil fuels — and nuclear from the taxonomy.**

More broadly, **the EU is setting its energy agenda for the decades to come: it is time to sever the ties between officials and energy lobbies that contribute to untamed global warming or undermine the sustainable transition.** EU institutions should simply refuse any meetings, conflicts of interest, partnerships, and collaborations with fossil fuel lobbyists.

METHODOLOGY

Reclaim Finance identified players in the transparency register who are significantly involved in the gas or nuclear sectors. These players operate nuclear or gas power plants, sell/build nuclear or gas infrastructures (e.g. turbines, pipelines), sell specific services related to gas or nuclear, represent companies that operate nuclear or gas power plants or sell nuclear or gas infrastructures, sell natural gas, manage the gas network, support LNG development, and/or are notoriously pro-gas or nuclear organizations. They use the words “gas”, “LNG” or “nuclear” in the register entry.

Reclaim Finance focused on meetings that took place from January 2020 to May 2021. These meetings happened around the publication of the TEG’s final report – March 2020 – and afterwards, when gas and nuclear inclusion were debated at the level of the EU Commission. They are thus likely to have had an influence on taxonomy decisions.

Reclaim Finance then aggregated the public data from the transparency register to obtain figures for each energy source. In order to ensure a faithful and conservative estimate of gas and nuclear lobbying, while Reclaim Finance used the full data available for companies and organizations involved, it decided to count each consulting firm involved as being one person and one FTE only. In fact, unlike in-house lobbying carried out directly by companies, it is impossible to precisely determine how much of its resources a consulting firm dedicates to a single client and, therefore, to pro-nuclear or gas lobbying. Nonetheless, Reclaim Finance used the most precise data available in the transparency register to assess how much companies spend on financing gas and nuclear lobbying through these firms.

It is worth noting that due to the voluntary and non-binding nature of the transparency register the data reported in this report do not account for:

- Companies that choose not to register in the transparency register.
- Additional lobbying (e.g. meetings, spending) that is not recorded or underreported in the transparency register.
- Consultancy firms and companies that protect gas or nuclear interests but do not clearly mention them in the transparency register.

REFERENCES

1. The taxonomy regulation was separated in two: a first set of delegated acts covering climate change mitigation and adaptation – to be adopted initially before 31 December 2020 – and a second set for the other objectives – initially by 31 December 2021.
2. The delegated acts for the other four remaining objectives have also been delayed. They are now scheduled to be published in the first half of 2022.
3. It identified 167 entities that spend between €68.8 million and €82.9 million each year and devotes 759 employees –419 FTEs– to promote the sector. Gas supporters had 295 meetings with EU official from January 2018 to July 2020, including 49 meetings in the 4 months following the publication of the TEG's final report.
4. Many other consultancies report gas or nuclear-related clients but do not directly declare working on gas or nuclear. The scope of our research limits to consultancies that explicitly report working on gas or nuclear, notably by mentioning it in their transparency declaration.
5. According to the [Europe Beyond Coal database](#), as of today 35 GW of coal-fired power plants are already scheduled to close between now and 2025 in the EU (out of the total 142 GW of operational coal plants in the EU today), and tens of additional GW need to close by 2025 in a 1.5°C pathway. According to [Global Energy Monitor](#), 8,3 GW of gas-fired cogeneration plants are under construction or planned in the EU (4.3 times less). As a consequence, early analysis on capacity amounts, related to the first criteria in the Commission's proposal, finds that up to 100% of gas plants with cogeneration built until 2025 could be eligible to be labelled as green, and there will be room for labelling much more. The result could be an incentive to build even more gas cogeneration plants than already planned, while failing to close any more coal plants. This would be fully counterproductive.
6. Foratom, [Investment Framework Task Force Report](#), May 2021
7. GIFEN, [GIFEN warns against the unrealism of a 100% renewable scenario](#), January 2021
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OUT WITH SCIENCE, IN WITH LOBBYISTS: Gas, Nuclear and the EU Taxonomy

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 some financial actors, denounces the most harmful practices and puts its expertise at the service of public authorities and financial stakeholders who desire to to bend existing practices to ecological imperatives.

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