

EU Taxonomy: Greenwashing Impacts Global Climate Crisis

Christiana Mauro, Kacper Szulecki, Lucie Čejková, Thomas Brent



In July of 2022 the European Parliament did not support a proposal to block the European Commission's second Delegated Act¹, amending the Taxonomy Regulation and including nuclear power and gas as environmentally sustainable transitional economic activities. This did not fail easily; some 278 Members of the European Parliament (MEPs) supported the block, but this was not enough, as an absolute majority of 353 votes was needed to kill the Act. This marked its final clearance, and it entered into force early this year.

The fact that the Act was not blocked indicates both how much political will there is within the EU to back nuclear power and how the debate can be hijacked by the interests of powerful economic sectors.

That was evident when the deadline to determine which economic activities could be deemed "green" approached and the leaders of the Czech Republic, France, Hungary, Poland, Romania, Slovakia and Slovenia wrote a joint letter² to the European Commission pressing for the inclusion of nuclear power in the new taxonomy.

The letter that called for nuclear energy to be incorporated under the "Green Taxonomy" was covered widely but left unscrutinised by the news media.

A deceptive message

A team of fact checkers determined that 25 of the claims in the letter are factual claims. On a strict accounting, 20 of these are false or misleading. This includes assertions that nuclear power is "environmentally friendly", that it is "essential to the transition towards clean energy sources", that it is a "promising source of hydrogen", and that it is "affordable".

It remains uncertain what influence this letter had on the overall decision to include nuclear power, but as it was backed by several states its impact could not have been negligible.

The letter was followed by further communications, including a statement by 87 MEPs³ and a joint article from 16 EU ministers⁴ that was published on major news sites across Europe in most European languages. All were broadly covered in the news, but no deeper examination was offered of the content.

It became clear as never before that, even while scientific consensus exists on the environmental dangers and economic viability of atomic energy, political actions can influence regulations expected to be politically neutral. And well-intentioned, vital, and comprehensive legislation, years in the making, can be likewise subverted.

Since nuclear energy originally failed⁵ to meet the taxonomy criteria, it was only to be expected that promoters of the nuclear industry would pull out all the stops.

Due to record investments in renewable energy, nuclear's share of global electricity production is slipping fast, as are its "culture, skills, vendors and prospects"⁶. In 2021 non-hydro renewables added a net 257 GW⁷ to electricity grids, while nuclear capacity decreased.

But when the European Commission, in February of 2022, adopted a plan that incorporated the nuclear sector into its "Green Taxonomy", the decision made headlines internationally as an act of abject capitulation⁸.

What happened?

Why was the content of the letter from these seven heads of state not fact-checked? Why was it not thought worthwhile to cut through the dizzying spin and deployment of arguments lacking any scientific or legal basis?

These are some of the questions left hanging a year after the March 9, 2022 adoption of the Climate Complementary Delegated Act, which greenlighted investments of a greenwashed industry.

It is the purpose of this analysis not merely to keep a tab of the deceits of a set of politicians, but to show that the letter, far from a communication by eminent leaders in good faith on a matter of global import, is an example of what can be made to pass for public discourse at a time when the planet stands at the threshold of collapse due to global warming. The contents of the letter fall far below any reasonable standard for such an official communication and should have provoked more comment in the media. More than mere fact-checking is required.

The push for a not-so-level playing field

The letter has two main, repeated themes: the climate-friendliness of nuclear energy and the energy-neutrality of historical EU policy, about both of which the claims are not truthful.

It begins by sounding a familiar note of appeal to national sovereignty. EU-wide policy is blamed for insensitivity to "country-specific conditions." This claim is made first, and very prominently, in a short standalone paragraph.

The second appearance of the claim elaborates: "we are highly concerned that the Member State's right to choose between different energy sources and the right to determine the general structure of the energy supply (Article 194 of the Treaty of the Functioning of the European Union (TFEU)) is currently heavily limited by EU policymaking, which excludes nuclear power from more and more policies."

Yet there is no evidence to back up this claim. On the contrary, in 2020 the European Court of Justice (CJEU) upheld the Commission's granting of state aid for nuclear energy on the basis of this right. More to the point, the EU Taxonomy, the object of the letter, does not compel Member States to steer public money into sustainable investments, nor does it impose legal requirements related to environmental performance. So this championing of national sovereignty is no more than a dog-whistle.

The real target of this claim, therefore, seems not to be any measures adopted by the EU, but rather the concerns expressed by any Member States regarding EU backing of the nuclear sector, which are to be ruled out of bounds from the start. Such concerns are given short shrift to the extent that they are not even mentioned, much less discussed or refuted, in the letter. It is simply stated as a principle that "every Member State is free to develop nuclear power or refrain from it in mutual respect and regardless of policy choices of other Member States." This principle is violated by the exclusion of nuclear power from "more and more policies."

This is, then, nothing short of a demand for a special status for nuclear power, which would thereby be placed above debate and beyond criticism. Such a demand can only be made to square with an imputation of heavy-handedness or bias in the formation of policy at the European level by a deft repeated rhetorical shifting of the goalposts from a requirement of neutrality to an insistence on special, protected status.

A rhetorical misdirection's being given such an obvious place in the letter augurs ill for the rest, and other examples of bad faith in matters of fact and legal principle are forthcoming.

The first challenge to the fact-checker is that of separating the claims and evaluating them independently. Some of them are repeated verbatim, some appear more than once in misleadingly different verbal and syntactical guise. Some are accepted as undefended premises, others smuggled in as asides. Only a few, and those not always the most central, are overtly argued for.

Returning to the first theme of the letter, namely the climate-friendliness of nuclear power, the approach is to lay strong emphasis on the low CO₂ emission status of nuclear power generation.

This has the advantage of a surface plausibility and some degree of truth. But if nuclear power can be said to produce few emissions of carbon it is only true at the point of generation, and not when we look at, among others, the necessary processes of mining, milling, conversion, enrichment and fuel fabrication⁹.

When the entire life-cycle of nuclear power plants (NPPs) are taken into consideration, with their long construction periods, their operational lifespan and then the equally long period of decommissioning, followed by the so far incalculable duration of waste-storage management and monitoring, the boast of a low volume of emissions per kWh crumbles.

The stick in the spokes of the circular economy

The letter claims that nuclear has an important role to play in climate change mitigation by easing the transition to renewables, saying it makes an "indispensable contribution" to fighting climate change; specifically, that "as low-emission baseload, it guarantees the continued renewable deployment to much higher penetration levels."

This camouflages two claims: the first, that nuclear is a low-CO₂ emission energy system; and the second, that nuclear is more reliable than the up-and-coming renewables.

When the sun does not shine and the wind does not blow, a "firm power" backup is required, and nuclear power is fit for purpose, supporters of nuclear power suggest. But in fact, the requirement for demand to be met by such an unvarying source of power is not in line with current thinking, and the entire concept of baseload is outdated¹⁰.

What is “baseload”? At least five meanings

1. **For someone who analyses utility loads:** the steady, 8,700-hour-per-year portion of system load (below the load-duration curve’s shoulder)
2. **For the system planner:** the least levelised-*total*-cost marginal resource that can be planned and built, regardless of unit size or type
3. **For the system operator:** the lowest-marginal-*operating*-cost resource, dispatched whenever available and needed for load
4. **For the journalist, politician and layperson:** a gigawatt-scale thermal power plant, or maybe a big hydroelectric dam
5. **For the nuclear advocate:** a hypothetical power plant that runs at all times (but no such power plant exists)
 - Baseload (steady) *demand* does not require a steady *generator*
 - Steady output is a statistical attribute of the aggregate of generators on the grid, not a physical *requirement* for nor an actual attribute of any *single* generating unit

Copyright © 2009 Rocky Mountain Institute

Based on Amory B. Lovins, “Power’s Competitive Landscape: Comparing Costs, Reliability, and Climate-Protection Potentials”
Available at: www.rmi.org/wp-content/uploads/2017/05/RMI_Document_Repository_Public-Reprts_RMI2009Nucl30m_v9.pdf

Demand is entirely capable of being met by an appropriate number of intermittent, dispatchable, and load-following power sources.

And considering the unreliability of nuclear power, with its ageing and deteriorating reactors, and unique vulnerability to extreme weather events, it is unlikely to have any indispensable contribution to make at all. (Around half of the French nuclear capacity, which itself accounts for around half of the EU’s nuclear power, was offline for most of 2022¹¹ due to an accumulation of decennial inspections, post-Fukushima backfitting, age-related repairs, an unexpected scope of stress corrosion cracking, climate-related outages and strikes).

Further statements in the letter about the advantages of nuclear power that would make it a candidate for inclusion in the taxonomy are mainly repetitions of the tendentious claims above, sometimes in less clear wording.

For example, when we read that nuclear can contribute to “the breadth of yet unexploited synergies between the nuclear and renewable technologies,” Fabian Lüscher, nuclear expert at the Swiss Energy Foundation says “wishful thinking wrapped in vague wording is all that we get”. And such straining for effect shows how the letter has signally failed to convincingly establish the climate-friendliness of nuclear energy.

The letter goes on to promote nuclear’s potential as “a very promising source of low-carbon hydrogen at an affordable price.”

While it is true nuclear power generation could be a source of relatively low-carbon hydrogen, the “low-carbon” epithet should once again put us on our guard. In fact, hydrogen produced from

nuclear sources cannot properly be termed “green (zero-emission) hydrogen” at all; rather, it is commonly referred to as “pink hydrogen”.

This chromatic distinction reveals the fact that nuclear is not a worthwhile source of hydrogen when, again, renewable sources can be used in the electrolysis of water without any cost in emissions. The appeal to clean hydrogen production as another advantage of nuclear appears to be merely an opportunistic attempt at re-purposing and for desperately seeking a place for inflexible nuclear generation in a primarily renewable-based future energy system.

If nuclear power then cannot produce truly low-carbon hydrogen, what about its “affordable price”? This claim is only made once in the letter. And here it is necessary to stress the general truth that there is nothing “affordable” about nuclear power. We would expect this to be so, considering what has been mentioned before about the wildly variable but often decade-plus time, and consequent cost, overruns in the construction of NPPs.

The levelised cost of nuclear energy has been calculated variously by different organisations, with even the most favourable results showing no advantage over the recently plummeting cost of renewables, and the less favourable (in line with a December 2021 Bloomberg New Energy Finance update) showing it to be up to thirteen times more expensive per MWh¹².

The nuclear research team at Berlin’s Workgroup for Economics and Infrastructure Policy has said that even when reactor lifetimes are extended, nuclear power is not a profitable investment¹³. Notably, they have come to this conclusion even without factoring in the social and environmental costs of accidents, long-term storage, or decommissioning, with an even higher price-tag than construction. If we extrapolate from studies of real capital costs and factor in deliberately negated considerations, such as spent nuclear fuel storage temperature regulation and monitoring over the course of hundreds of thousands of years, this would inflate the kWh figures many times over.

These costs are usually omitted from calculations because we simply have no way of determining them: out of 204 closed nuclear power reactors in the world, only ten have been decommissioned to green-field¹⁴, and so experience of decommissioning is minimal, and likewise experience of the costs involved.

As there are currently no working geological disposal facilities for high-level waste, costs for nuclear waste disposal are also nearly impossible to determine. Adding to the uncertainty are the extremely long timeframes involved (hundreds of thousands of years), the lack of government reporting, and the lack of government modelling¹⁵.

Cost estimates for both decommissioning and nuclear waste storage are subject to a high degree of further uncertainty¹⁶ related to, among other factors, inflation rate expectations, and cost increases due to changing geological and environmental conditions, particularly climate change, that render existing sites unsafe.

Such long-term costings are anyway not deemed worthwhile by economists due to the ‘discount rates’ assumed in the calculation, which are an entirely speculative means of determining the future value of expenditures. Stanford Adjunct Professor Amory Lovins is a prominent energy policy expert who frames comparisons in ways that are hard to dispute. He describes these rates as “an economic convention reflecting almost-universal conventions in Western cultures, but not in all, and ultimately inconsistent with the laws of thermodynamics.” Real costs, again, may be significantly underestimated as a result, and as Lovins asserts “no business case means no climate case”¹⁷.

Government schemes keep consumer nuclear electricity prices artificially low. So even in an already decisive economic case, such calculations are necessary, but not conducted. Mark Barrett, Professor of Energy and Environmental Systems Modelling UCL argues: “No doubt these are not done because framing comparisons of whole-system nuclear energy costs with any alternatives would prove to be highly embarrassing to the governments that are financing it.”

In an otherwise diplomatic and conciliatory letter obtained by us through a freedom of information request¹⁸, the President of the European Commission expressed a resolute scepticism about the financial viability of nuclear new build. Inadvertently, so does the EU's Energy Commissioner, when she admits¹⁹ that a "hugely significant level of investment" from the EU is needed to maintain the current nuclear capacity; and this "will play a key role in making nuclear energy production a competitive option." So, nuclear can only be made "competitive" with "hugely significant" government subvention.

The notion that there is no rationale for favouring nuclear energy over alternatives, especially when the actual reported costs are considered, is strongly supported even by mainstream energy analyses, including that of former Nuclear Energy Agency analyst Geoffrey Rothwell²⁰.

And here lies perhaps the most serious objection to including nuclear in the category of green energy: according to Dr Paul Dorfman of the University of Sussex, its costs are so high that, far from "guaranteeing" renewable deployment, it would be a substantive hindrance to it.

Moving to the second theme of the letter, we would expect to find that it contains proof of the EU's historical interest in pursuing an energy-neutral policy. This, after all, is the substance of the complaint: that the EU, in promoting "zero-" and "low-emission technologies" in order to achieve climate neutrality, has unfairly scanted nuclear power, which "should not only be recognized but also actively supported." The EU has abandoned its own commitments, the Commission is told, to the detriment of its Member States' freedom to choose its own energy policy.

We have seen that the claim for nuclear power to be included among low-emission technologies is dubious; what can be made of the notion that the EU has an obligation to promote nuclear power and the European Court has confirmed that nuclear energy does not compromise EU environmental protection objectives?

European Court stands firm on environmental law

The Nuclear Seven offer as an example of what they see as the EU's historically energy-neutral, nuclear-favouring policy the 2020 decision²¹ of the European Court of Justice on the Hinkley Point C project.

According to this account, the CJEU "confirmed that nuclear energy does not compromise the environmental objectives of the TFEU". But the Court's ruling confirmed nothing of the kind. A court does not determine which industries pollute; it interprets the law. And in this case, its interpretation of primary and secondary law concluded, quite explicitly, that EU principles of environmental protection, including the precautionary principle, the 'polluter pays' principle and the principle of sustainability, apply to the nuclear sector too; any state aid for an economic activity "that is shown upon examination to contravene" this *acquis* cannot be declared compatible with the granting of state aid.

What the case does appear to confirm is that one provision of the Treaty Establishing the European Atomic Energy Community (Euratom Treaty) cannot trump EU environmental law.

Nor, according to international law, can an administrative decision by the EU that is potentially in violation of environmental law prevail over the public's right to challenge that decision.

The UN's Aarhus Convention Compliance Committee concluded in March 2021 that the EU was in breach of the Convention for failing to provide a means for authorised associations to challenge EU state aid decisions before a national court. Directly referring to the Hinkley Point C case, it stated that "a decision on state aid measures by the Commission may contravene EU environmental law"²².

It is true that the hierarchy of legal norms in the energy sector is, and will remain, a highly sensitive political matter, as the University of Eastern Finland's EU Law Professor Kaisa Huhta asserts²³;

however ClientEarth legal experts have suggested that the Court's broad reading of Treaty provisions, which oblige EU energy policy to respect the need to preserve the environment, actually establishes a future counterargument²⁴ against the application of state aid for nuclear activities.

Noncompliance and lack of oversight

The seven Member State leaders continue to attempt to cultivate the sympathy of the Commission for their plight by establishing that they have, on their part, played by the rules: "All Member States are making the policy choices in the field of energy fully in line with EU law, including the Euratom Treaty." Yet in March 2021, the month in which the letter was written, these same Member States had collectively chalked up 54 active infringement cases in the energy sector, and 13 of these cases were the result of violations of the Euratom Treaty.

This high number of infringements is hardly reassuring, but even without such delinquency we would still find little to be heartened by in the further statement that EU Member States use nuclear power "in line with the most stringent safety standards as ensured by the Euratom framework."

The Euratom framework is a collection of EU directives addressing different aspects of nuclear safety. Such directives function as broad recommendations for legislation which must be drafted by each Member State. States retain sovereignty over their nuclear operations and each is free to manage its safety and security risks according to its own priorities, proclivities, and safety paradigms. If a country oversteps, there is no mechanism in place to effectively prevent them from doing so.

Ultimately, all measures to ensure the safety of NPPs are the responsibility of the Member State. If the recommendations are not met, measures should be taken to reach or restore the required level of safety; but this does not always happen, and there is no enforcement mechanism in place to make certain it does.

Physicist Oda Becker, who is a member of the International Nuclear Risk Assessment Group, describes the argumentation from the Member States as "baseless". She says that "The Euratom framework does not ensure that a severe accident will not occur, and does not ensure that an attack on a nuclear facility will not lead to catastrophe. It does not even ensure that there will be safe final disposal solutions for radioactive waste".

As a rule, the state of the art in science and technology is used as the applicable safety standard. This technical standard represents the highest level of safety that can be achieved. It is based on the most current state of knowledge, and the most modern design-based technology. The "most stringent standards," unlike in respect to other hazardous technologies, are not in effect enforced in the nuclear sector. The International Atomic Energy Agency rather requires that its Member States use nuclear technology according to the highest level of safety that is "reasonably practicable" or "reasonably achievable".

The Nuclear Seven: environmental culprits?

The letter concludes as it opens, with the signatories' avowal of "strong commitment to the green transition" and embracing of climate neutrality by 2050 as "our common goal to which we remain fully committed."

Yet, these bona fides ring false when we discover that only two of the seven signatory Member States, France and Hungary, have met the benchmark²⁵ adopted the EU's target of climate neutrality by 2050; that an additional three, Czechia, Slovakia, and Slovenia, have set climate neutrality goals, but not for 2050; and that the remaining two signatory Member States, Poland and Romania, have no relevant policy and hence no official climate strategy at all.

Two nuclear states, the Czech Republic²⁶ and France²⁷, were held accountable in recent national court rulings for their failure to implement climate neutrality commitments. (A citizens association has also launched a suit calling for the Polish Court to rule on its government's inaction.²⁸) In 2020 France was the only EU-27 country²⁹ to fail to meet a binding renewable energy target.

Poland is the only EU Member State which has so far declined altogether to commit to the UNFCCC Paris Agreement's 2050 climate neutrality target³⁰.

Poland made an unsuccessful attempt to challenge the competence of the EU to set energy policy objectives, including the promotion of energy efficiency and the development of renewable forms of energy. And the Climate Change Performance index³¹ ranks Poland as one of the least ambitious of European states in terms of climate neutrality objectives. Hungary is ranked last among EU Member States.

Thus, the actions of most of the signatory Member States are not in keeping with and do not support their rhetorical "commitments". Bernard Laponche, a Nuclear Physicist and former Nuclear Engineer at the French Atomic Energy Commission who helped to build France's first NPPs, argues that claims about nuclear's role in easing the transition to renewables are "totally dishonest. If the seven Member States want to include nuclear in the Taxonomy, it is not for a few years. What they want, in fact, is to maintain nuclear development for eternity." Their overall weak commitment to decarbonisation corroborates this opinion.

Industry talking points left unchallenged

"People generally assume that the press plays an adversarial role to those in power and is quick to unmask, debunk, and challenge," write Kathleen Hall Jamieson and Paul Waldman in "The Press Effect." This impression is mistaken, because, as they argue, the adversarial tendency is restrained when competing narratives are not offered. In this way, when deceptive material is passed over in silence but also widely reported it is even more likely to remain unchallenged.

Regarding the accuracy of the assertions by the Nuclear Seven leaders, author of "Experts and the Will of the People" Darrin Durant asks: "Is the distortion introduced by flawed coverage an artefact of the journalist naively propagating a false balance, or because the journalist is trapped in a maze of claims that make it difficult to do anything but aim for accurate re-presentation? What kinds of artificial choice contexts were subtly slipped into the text? How was the job of the would-be fact-checking journalist made terribly difficult by uncertainties deleted and contexts manufactured? Note this turns attention directly to the letter itself. The authors of the letter are the culpable ones."

Had the seven Member States wanted to establish their allegiance to the EU's project of climate neutrality, and had they wished to make their case for the inclusion of nuclear energy in the Taxonomy, they could have avoided synthetic claims and empty rhetoric and made precisely three statements: that nuclear power is green, that it is sustainable, and that it does no significant harm. But these three claims are carefully avoided throughout the letter. Because they would be false.

False or misleading statements in the letter:

- The consistent efforts the European Union is undertaking towards climate-neutrality by 2050 with a new EU target of a net domestic reduction of at least 55% in greenhouse gas emissions by 2030 [is] our common goal to which we remain fully committed
- [Nuclear power is a] zero or low-emission [technology] that contribute[s] to climate neutrality
- The Treaty establishing the Euratom Community [obliges] EU institutions to promote [nuclear energy]

- The Court of Justice of the EU [...] confirmed [...] that nuclear energy does not compromise the environmental objectives of the Treaty on the Functioning of the EU
- The development of the nuclear sector in the EU is contested by a number of Member States despite its indispensable contribution to fighting climate change, as well as the breadth of yet unexploited synergies between the nuclear and renewable technologies
- EU countries utilise or develop nuclear power providing close to half of EU low-emission generation, in line with the most stringent safety standards as ensured by the Euratom framework
- As low-emission baseload, [nuclear] guarantees the continued renewable deployment to much higher penetration levels
- Nuclear power seems to be also a very promising source of low-carbon hydrogen at an affordable price and can play an important role in energy sector integration
- Concentrating on technologies to be commercially applicable post 2050 as well as decommissioning activities and safety enhancements without an appropriate framework for nuclear new build [...] will result in a significant loss of high quality jobs in many European countries
- [A]ll Member States are making the policy choices in the field of energy fully in line with EU law, including the Euratom Treaty

This investigation was supported by a Press Start crowd-funding project and funded, in part by the European Commission under the pilot project “Supporting investigative journalism and media freedom in the EU”

About the authors

Christiana Mauro is a Legal Expert and Senior Advisor at Geneva’s Biosphere Institute.
Kacper Szulecki is a Research Professor in International Climate Governance at the Norwegian Institute of International Affairs, University of Oslo.
Lucie Čejková is a Climate Journalist at the Czech independent daily Deník Referendum.
Thomas Brent is a Freelance Journalist based in Brussels, writing in-depth articles for Science|Business.

This article was originally published on 8 March, 2023 on the NuclearConsult website, www.nuclearconsult.com.

-
- [1] www.ec.europa.eu/commission/presscorner/detail/en/ip_22_711
 - [2] www.gov.pl/attachment/bd1f8464-9a68-4bf7-9e86-b210ddd22dc7
www.euractiv.com/wp-content/uploads/sites/2/2021/03/Nuclear-letter-march-2021.pdf
 - [3] www.world-nuclear-news.org/Articles/MEPs-call-on-EC-to-recognise-nuclear-as-sustainabl
 - [4] www.euractiv.com/section/politics/short_news/nine-eu-countries-join-france-in-a-nuclear-alliance/
 - [5] www.web.archive.org/web/20230311103942/commission.europa.eu/system/files/2020-03/200309-sustainable-finance-teg-final-report-taxonomy-annexes_en.pdf
 - [6] www.utilitydive.com/news/nuclear-energy-should-not-be-part-of-the-global-solution-to-climate-change/620392/
 - [7] www.project-syndicate.org/commentary/nuclear-power-too-slow-too-expensive-by-antony-froggatt-2022-11
 - [8] www.washingtonpost.com/world/2022/02/02/green-energy-gas-nuclear-taxonomy/
 - [9] www.sciencedirect.com/science/article/pii/S0301421521002330
 - [10] www.theconversation.com/baseload-power-is-a-myth-even-intermittent-renewables-will-work-13210
 - [11] www.grs.de/en/news/situation-nuclear-power-plants-france-how-has-situation-evolved-our-neighbouring-country
 - [12] www.sciencedirect.com/science/article/pii/S1040619022000483?via=ihub
 - [13] www.diw.de/de/diw_01.c.698587.de/publikationen/diskussionspapiere/2019_1833/economics_of_nuclear_power_plant_investment_monte_carlo_simulations_of_generation_iii/iii_investment_projects.html
 - [14] www.worldnuclearreport.org/World-Nuclear-Industry-Status-Report-2022-870.html
 - [15] www.inis.iaea.org/search/search.aspx?orig_q=RN:47061272
 - [16] www.link.springer.com/chapter/10.1007/978-3-658-25987-7_12
 - [17] www.news.bloomberglaw.com/environment-and-energy/why-nuclear-power-is-bad-for-your-wallet-and-the-climate
 - [18] www.asktheeu.org/en/request/11703/response/39659/attach/4/Joint
 - [19] www.ec.europa.eu/commission/presscorner/detail/en/SPEECH_22_6804
 - [20] www.sciencedirect.com/science/article/abs/pii/S0301421522001306
 - [21] www.curia.europa.eu/juris/liste.jsf?num=C-594/18
 - [22] www.unece.org/sites/default/files/2021-01/C128_EU_draft%20findings_for%20comment.docx
 - [23] www.cambridge.org/core/journals/international-and-comparative-law-quarterly/article/scope-of-state-sovereignty-under-article-1942-tfeu-and-the-evolution-of-eu-competences-in-the-energy-sector/82D1631524E2B91F9610D8294B3A791D
 - [24] www.clientearth.org/media/fscj42if/clientearth-legal-note-on-the-hinkley-point-c-ruling_provisional-version-26-03-2021.pdf
 - [25] www.greenrecoverytracker.org/
 - [26] www.elaw.org/landmark-victory-czech-climate-suit
 - [27] www.reuters.com/world/europe/french-court-orders-state-honour-its-climate-commitments-oxfam-2021-10-14/
 - [28] www.reuters.com/business/environment/poland-faces-first-citizen-lawsuits-over-climate-change-2021-06-10/
 - [29] www.lemonde.fr/en/environment/article/2022/11/25/renewable-energy-france-will-have-to-pay-several-hundred-million-euros-for-falling-short-of-its-objectives_6005566_114.html
 - [30] www.clientearth.org/latest/latest-updates/news/why-five-polish-citizens-are-taking-their-government-to-court-over-climate-change/
 - [31] www.ccpi.org/ranking