PRI POSITION PAPER

ALTERNATIVE SOLUTIONS TO INCLUDING GAS-FIRED POWER AND NUCLEAR ENERGY IN THE EU SUSTAINABLE TAXONOMY

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KEY POINTS

The Taxonomy Regulation stipulates that Technical Screening Criteria (TSC) for the EU Sustainable Taxonomy should be based on the best available scientific evidence and – in the case of the climate change objective – whether the economic activities contribute to the long-term temperature goal of the Paris Agreement. Decision-makers are currently considering TSC for gas-fired power and nuclear energy as part of a complementary climate delegated act. They must not use this opportunity to let economic and political questions on energy security and cost thwart the scientific integrity of the EU Sustainable Taxonomy; this would tarnish investors' interest to use it as an instrument for driving sustainable investments, and lead to market fragmentation and risk of greenwashing.

The inclusion of gas-fired power would seriously compromise the EU Sustainable Taxonomy's ability to act as an independently and scientifically designed tool for guiding investment into environmentally sustainable activities in line with the EU's goal of reducing emissions by at least 55% by 2030.[1] The IEA net zero by 2050 pathway stresses that there is no remaining carbon budget for new gas investments at all and that existing gas-fired power plants will have to be phased out by 2035 in the OECD and 2040 globally.

Nuclear energy's potential substantial contribution to climate mitigation objectives is clear, but criteria to ensure that current nuclear technology "does no significant harm" to other environmental objectives, as required by the Taxonomy Regulation, remain elusive. A report by the Joint Research Centre that was commissioned by the European Commission to inform a decision on this matter has been criticised (e.g. SCHEER, BASE, Heinrich Böll Stiftung) for not sufficiently addressing risks related to the storage of nuclear waste, severe incidents and nuclear proliferation.

When considering gas-fired power and nuclear, one must distinguish between their *inherent sustainability as an economic activity* and their potential role as *technologies that can enable the net-zero transition*. The European Commission and EU member states should therefore explore possible alternatives, developing a framework that recognises gas-fired electricity and nuclear energy as short-term transition activities towards reaching net-zero emissions by 2050. Two main options are available to do this:

- **Developing a legislative proposal on transition sectors** under the decarbonisation financing initiative. This legislation should be separate from the EU Sustainable Taxonomy to ensure it does not undermine the EU's sustainability objectives or lead to the lock-in of carbon intensive activities – as suggested in the European Commission's recent sustainable finance strategy.
- **Extending the EU Sustainable Taxonomy** as per the provisions in article 26(1)f of the EU Taxonomy Regulation. As indicated by a draft report of the Platform on Sustainable Finance, the potential extension of the EU Taxonomy would allow to recognise intermediate economic activities and transition pathways such as gas-fired power that operates below the 'significant harm' threshold of 270g CO2/kWh.

Any proposals put forward by the European Commission must be subject to a public consultation and a review by the Platform on Sustainable Finance, in order to ensure that the EU Sustainable Taxonomy maintains market confidence and remains based on the best available scientific evidence.

[1] Unless otherwise specified, the use of the term 'gas' in this paper refers to 'methane gas' – historically also referred to as 'natural gas'.

INTRODUCTION

Article 10(3) of the EU Taxonomy Regulation (2020/2088) provides the European Commission with a mandate to develop a climate delegated act, detailing 'technical screening criteria' (TSC) for determining which economic activities 'significantly contribute' to climate change mitigation while not doing 'significant harm' to other environmental objectives.

The climate delegated act (climate DA) was presented by the European Commission in April 2021, including TSC for over 100 economic activities in 13 sectors.[2] However, no agreement could be reached on the inclusion of gas-fired power and nuclear energy. The European Commission laid out next steps for both these economic activities in points 27[3] and 28[4] of the climate DA preamble, and committed to address them in a 'complementary' delegated act.

There is growing criticism from within the EU against the inclusion of gas-fired power and nuclear in the EU Sustainable Taxonomy: six member states are publicly opposing the inclusion of nuclear (Germany, Austria, Luxemburg, Portugal, Denmark) or both nuclear and gas-fired power (Spain). Undermining the credibility of the EU Sustainable Taxonomy by including gas-fired power and nuclear energy would also undermine the EU's leading role on sustainable finance. Other countries such as China and Russia have already excluded gas-fired power production from their own taxonomies. Existing voluntary Green Bond standards[5] and green labels[6] also exclude both gas and nuclear.

This position paper explains why gas-fired power and nuclear energy are not aligned with the objectives of the EU Sustainable Taxonomy, and presents alternative options for their inclusion in the framework. PRI believes that there is confusion between the issue of defining activities that are sustainable under the EU Taxonomy, and the broader debate on how the energy mix needs to evolve in the next decade. The solutions presented in this paper aim to untangle these two separate issues, and to contribute to the development of a framework that recognises the short-term role that gas-fired power and nuclear energy can play in the transition of the energy sector without labelling them as inherently sustainable economic activities.

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[2] Delegated Acts (DAs) are proposed by the European Commission and are subject to a four-month scrutiny period during which the European Parliament and European Council can assess whether they approve or reject the act. The European Parliament has approved the climate DA. But the European Council has used their prerogative to extend the scrutiny period by another two months and will make a final decision by 7 December 2021.

[3] Point 27 of climate DA pre-amble: *Regulation (EU) 2020/852 recognises the importance of 'climate-neutral energy' and requires the Commission to assess the potential contribution and feasibility of all relevant existing technologies. For nuclear energy, that assessment is still ongoing and, as soon as the dedicated process is complete, the Commission will follow up based on its results in the context of this Regulation.*

[4] Point 28 of climate DA pre-amble: *The legal boundaries for transitional activities set out in Article 10(2) of Regulation (EU) 2020/852 provide constraints in respect to greenhouse gas intensive activities with large potential for emission reduction. Such transitional activities should make a substantial contribution to climate change mitigation where no technologically and economically feasible low carbon alternative exists, provided they are compatible with a pathway to limit the temperature increase to 1,5 °C above pre-industrial levels, reflect best-in-class performance, do not hamper the development and deployment of low-carbon alternatives and do not lead to lock-in of carbon-intensive assets. In addition, Article 19 of the same Regulation requires, in particular, that the technical screening criteria should be based on conclusive scientific evidence. Where natural gas activities fulfil those requirements, they will be included in a future delegated act. For these activities, the technical screening criteria for assessing substantial contribution to climate change mitigation and 'do no significant harm' to other environmental objectives will be specified in that future delegated act. Activities that do not meet these requirements cannot be recognised under the Regulation (EU) 2020/852. In order to acknowledge the role of natural gas as an important technology in reducing greenhouse gas emissions, the Commission will consider a specific legislation to ensure that activities contributing to emissions reductions would not be deprived of appropriate financing.*

[5] For example, bonds that include gas-fired power or nuclear energy cannot be certified under the Climate Bond Initiative

[6] For example: Austrian Ecolabel for sustainable Financial Products (UZ49), Energy and Ecological Transition for Climate (TEEC - Transition Energétique et Ecologique pour le Climat), GreenFin, Luxflag Climate Finance Label, Nordic Swan Ecolabel

THE VALUE FOR INVESTORS OF A SCIENCE-BASED EU SUSTAINABLE TAXONOMY

Responsible investors have already started using the Taxonomy. This tool is needed first and foremost for investors to make informed investment decisions that are aligned with climate neutrality by 2050 and Paris Agreement objectives. Investors also need the EU Taxonomy to be transparent about how they are transitioning their investments. This does not mean they will all disinvest in the short term from non-taxonomy aligned activities; investors will also continue to consider other factors such as non-sustainability risks, maturity of technologies, portfolio diversity and profitability.

The Taxonomy Regulation stipulates that TSC for the EU Sustainable Taxonomy should be based on conclusive scientific evidence and – in the case of the climate change objective – whether the economic activities contribute to the long-term temperature goal of the Paris Agreement. The EU Sustainable Taxonomy is the bedrock on which the entire credibility of EU sustainable finance framework relies. A weakened EU Sustainable Taxonomy could have serious knock-on effects and increase greenwashing risks in various private and public finance files such as taxonomy-related disclosures under SFDR and CSRD, the EU Green Bond Standard, Sustainability preferences of clients as expressed under MIFID, climate benchmarks, EU recovery funds, state aid, fossil fuel subsidies, etc.

CONCERNS REGARDING THE INCLUSION OF GAS-FIRED POWER AND NUCLEAR ENERGY IN THE EU SUSTAINABLE TAXONOMY

GAS-FIRED POWER

The inclusion of gas-fired power would compromise the EU Sustainable Taxonomy's ability to act as an independently and scientifically designed tool for guiding investment into environmentally sustainable activities, in line with the EU's goal of reducing emissions by at least 55% by 2030.

The current TSC, as published by the European Commission in the first climate DA of 21 April 2021, state that power generation from different technology sources can only make a substantial contribution to climate change mitigation within an emissions threshold of 100g CO2e/kWh.[7] Most existing gas production today would not even surpass the significant harm threshold for climate change mitigation, set at 270g CO2e/kWh.

The above also applies to 'hydrogen-ready' gas-fired power plants. Such plants are equipped to work on hydrogen *at some point in the future*, but will emit levels of CO2-emissions that do not meet the significant contribution threshold of 100g CO2e/kWh as long as they are still using fossil gas as a fuel.[8] Hence the economic activity – as well as the related revenues/capex/opex on a company level – cannot be considered as sustainable until the power plants run on green hydrogen (i.e. no methane gas or hydrogen produced from non-renewable energy sources).[9]

[7] The power sector TSC of the climate DA follow the recommendations of the Technical Expert Group on Sustainable Finance's final report and technical annex. The detailed methodology for how the 100g CO2e/kWh threshold was defined can be found on page 206-207 of the technical annex.
[8] Note that he Platform on Sustainable Finance notes that '*turbines for 100% hydrogen are not yet commercially ready'.*
[9] Green hydrogen is hydrogen produced from renewable energy sources. Research by Climate Analytics indicates that blue hydrogen (i.e. fossil fuel based hydrogen with CCS) is not a viable alternative to green hydrogen: *blue hydrogen is highly emissions intensive, and further investing in this technology will lock in carbon intensive infrastructure and could crowd out the rapid scale-up of green hydrogen. The International Energy Agency estimates Green H2 could be produced in the lowest cost renewable regions for as low as USD 1.5/kg by 2030, comparable to cost of blue hydrogen, and beyond this time as low as USD 1.0/kg which is cost-competitive with natural gas without CCS.* In addition, one should be cautious of the amount of green hydrogen that will become available and prioritize its use for hard-to-abate sectors that have fewer technological alternatives available than the power sector.

Based on the above, analysis has been published that questions whether there is a sufficient legal basis to include gas-fired power in the EU Sustainable Taxonomy. According to ClientEarth, a Climate DA that includes gas '*would conflict with various legal norms and commitments, and in particular: the commitment to reduce greenhouse gas emissions ('GHGs') as necessary to meet the specific temperature limits under the Paris Agreement, the EU commitments under the European Climate Law to a 'climate-neutral Union' by 2050 and to reduce its net greenhouse gas emissions by at least 55 % compared to 1990 levels by 2030, obligations under Articles 11 and 191 of the Treaty on the Functioning of the European Union (the 'TFEU') and provisions of the EU Taxonomy Regulation*'.

NUCLEAR ENERGY

Nuclear energy's potential substantial contribution to climate mitigation objectives is clear, but criteria to ensure that current nuclear technology "does no significant harm" to other environmental objectives, as required by the Taxonomy Rgulation, remain elusive. A report by the Joint Research Centre that was commissioned by the European Commission to inform a decision on this matter has been criticised (e.g. SCHEER, BASE, Heinrich Böll Stiftung) for not sufficiently addressing:

- The risk of a nuclear accident, which can occur even if all regulatory requirements are met. While such events are infrequent, their potential impact can be far-reaching.
- Risks related to disposal and waste management, notably the uncertainties regarding the long timescales of intermediate and high-level waste storage (e.g. absence of operational geological storage).
- Nuclear proliferation. Military and civil use of nuclear technology have been closely connected, and proliferation is hard to regulate.
- The whole nuclear life-cycle, and in particular uranium mining. Most uranium mines are based outside EU control and regulation.

The materialisation of the risks above could seriously harm most – if not all – of the five environmental objectives other than climate mitigation that are part of the EU Taxonomy Regulation. Including nuclear energy into the EU Sustainable Taxonomy would therefore severely undermine the 'do no significant harm' concept that is central to the framework and, indeed, the broader EU Green Deal.

Based on the above, analysis has been published that questions whether there is a sufficient legal basis to include nuclear in the EU Sustainable Taxonomy. The law firm Redeker Sellner Dahs argues that:

- The EU Taxonomy Regulation does not include nuclear in the list of activities that make a significant contribution to climate protection;
- Nuclear energy can neither be viewed as an "ecologically sustainable economic activity" nor as a "transitional activity" as defined under the Taxonomy Regulation;
- Nuclear energy lacks resilience to the effects of climate change;
- Any legal act that is passed on the basis of the Taxonomy Regulation and somehow incorporates nuclear energy into the European taxonomy would be subject to appeal in the EU courts.

POTENTIAL SOLUTIONS FOR THE INCLUSION OF GAS AND NUCLEAR IN THE EU SUSTAINABLE TAXONOMY

OPTION 1: A SEPARATE LEGISLATIVE PROPOSAL ON FINANCING OF TRANSITION SECTORS

When considering gas-fired power and nuclear energy, one must distinguish between their *inherent sustainability as an economic activity* and their potential role as *transition sectors that can enable the net-zero transition*. The European Commission has at various occasions[10] indicated their willingness to develop a framework that recognises the role of transition technologies in the energy sector and most recently announced it will present a separate legislative proposal (labelled the decarbonisation financing initiative) in Q4 of 2021.[11]

It is important to underline that gas-fired power and nuclear energy cannot be addressed as 'transitional economic activities' under the current EU Sustainable Taxonomy framework, because they do not comply with the definition in article 10(2) of the Taxonomy Regulation. That definition applies to:

- Economic activities '*for which there is no technologically and economically feasible low-carbon alternative*'. The current market situation makes it increasingly hard to argue that renewables are not a technologically and economically feasible alternative to gas-fired power and nuclear. IRENA finds, for instance, that '*global renewable energy capacity additions in 2020 reflect unprecedented momentum for the energy transition… around 80 per cent of all new electricity capacity was renewable, showing that it is increasingly the preferred source of new power generation globally*'.
- Economic activities that are, by nature of the above, carbon-intensive: this is not the case for nuclear energy.

Gas-fired power and nuclear energy should therefore be addressed outside of the EU Sustainable Taxonomy. The European Commission has already highlighted that the separate legislative proposal they intend to put forward will recognise that the role of transition technologies in the energy sector will be limited to the current decade. Indeed, the IEA World Energy Outlook 2021 (launched 13 October 2021) finds that under countries' announced pledges, global gas demand would peak in 2025. The IEA net zero by 2050 pathway goes further, stressing that there is no remaining carbon budget for new gas investments at all and that existing gas-fired power plants will have to be phased out by 2035 in the OECD and 2040 globally.

In light of the above, the recognition of transition technologies in the energy sector must be coupled with stringent criteria.

- EU policy makers could for instance draw on the conditions in existing legal frameworks such as the European Regional Development Fund (ERDF): it excludes support for the decommissioning or

[10] In point 28 of the climate DA pre-amble, the European Commission states that '*in order to acknowledge the role of natural gas as an important technology in reducing greenhouse gas emissions, the Commission will consider a specific legislation to ensure that activities contributing to emissions reductions would not be deprived of appropriate financing*. In the Strategy for Financing the Transition to a Sustainable Economy, the European Commission states that they '*will consider proposing legislation to recognise and support the financing of certain economic activities, primarily in the energy sector, including gas, that contribute to reducing greenhouse gas emissions in a way that supports the transition towards climate neutrality throughout the current decade.*'

[11] The decarbonisation financing initiative says the legislative proposal '*will aim to support the financing of certain activities contributing to the decarbonisation of the economy in the current decade. These activities do not comply with the requirements of the taxonomy Regulation and are not covered by the rules developed under the taxonomy Regulation, but nonetheless play a role in the decarbonisation of the economy.*'

construction of nuclear power stations; only allows support for gas-fired power plants if they replace coal-fired power plants; makes support for gas more broadly dependant on countries' Gross National Income (GNI) levels and dependence on fossil fuels; and includes a 2025 sunset clause for gas support.

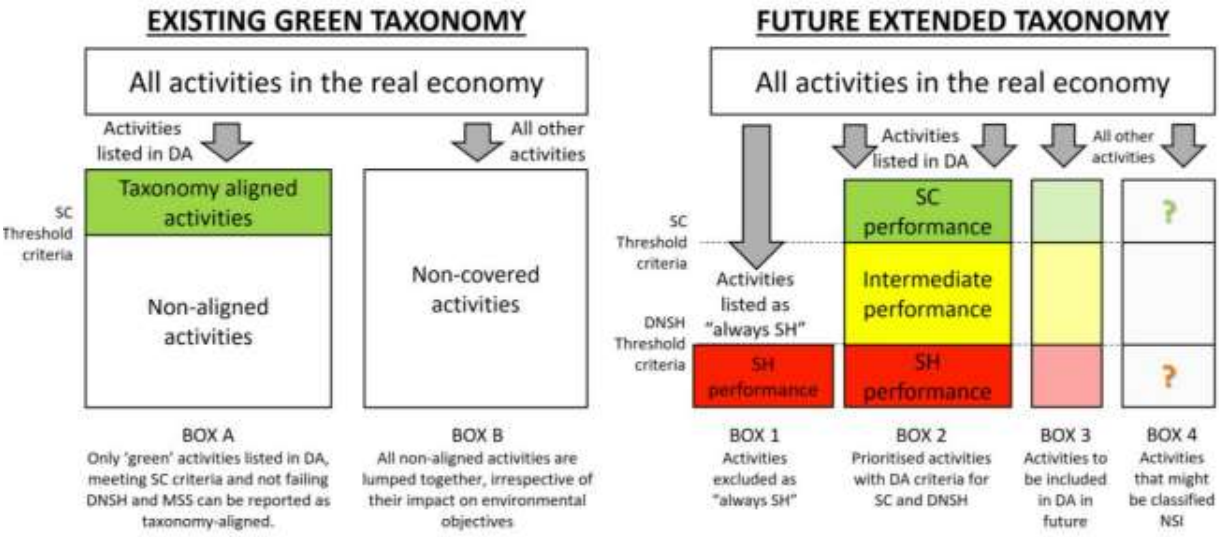
- Any transition finance should at all time be linked to sectoral pathways with science-based and periodic decarbonisation targets.

OPTION 2: AN EXTENDED EU TAXONOMY

Article 26(1)f of the EU Taxonomy Regulation states that 'By 31 December 2021, the Commission shall publish a report describing the provisions that would be required to extend the scope of this Regulation beyond environmentally sustainable economic activities'.

On 12 July 2021, the Platform on Sustainable Finance (PSF) published a draft report on the extended taxonomy to support economic transition. It proposes to expand the scope from sustainable economic activities to economic activities that cause 'significant harm' (red category), intermediate economic activities between 'significant harm' and 'significant contribution' (amber category), and economic activities that have 'no significant impact' (NSI).

The figure below from the PSF draft report showcases that extending the EU Sustainable Taxonomy would allow a much larger part of the economy to be covered. This would also open up the possibility to recognise gas-fired power production that meets the DNSH threshold of 270g/kWh as an intermediate (i.e. amber) economic activity.



Extending the EU Sustainable Taxonomy would also enable the recognition of an 'intermediate transition'. The PSF draft report states the following for gas-fired power: '*in the case of an existing natural gas facility, the following transition pathway could potentially be seen as an 'Intermediate Transition': upgrading the plant for natural gas-hydrogen blending, up to operationally/legally feasible levels (perhaps up to 20% and/or possibly installing CCS technology) to reduce emissions from say 350g to below 270gCO2/kWhe. Key components would need to be hydrogen ready, but the plant could still run mainly on natural gas for a certain time. Turbines for 100% hydrogen are not yet commercially ready. In order to stay at an intermediate performance level, further improvements would be needed as*

the SH threshold is revised every 3 years towards net-zero. Meeting current criteria for Substantial Contribution (<100 g CO2/kWhe), would require high heat offtake & probably >50% hydrogen blending. When 100% green hydrogen is available at scale, the plant could be upgraded or replaced.'

Extending the EU Sustainable Taxonomy would also allow to assess to what extent companies that have to report under the regulation (i.e. falling within the NFRD/CSRD scope) are redirecting their investments (e.g. through shifts in capex) from red to amber and green economic activities. As such, it will give investors much-needed information in their efforts to support the transition towards a net-zero economy.

It should be noted that article 19(5) of the EU Taxonomy Regulation stipulates that the TSC will be regularly reviewed '*in line with scientific and technological developments'*. This implies that the TSC can under no condition be loosened to accommodate gas-fired power, and will be gradually tightened in line with requirements under net-zero by 2050 roadmaps, including the phase-out of gas-fired power plants by 2035 in OECD countries and 2040 globally.

TIMELINE AND PROCESS

It is of crucial importance that the EU Sustainable Taxonomy maintains market confidence and remains based on conclusive scientific evidence. Any proposals put forward by the European Commission, whether through the forthcoming complementary climate delegated act or other legislative avenues, should therefore be subject to a public consultation and a review by the Platform on Sustainable Finance.

Putting in place separate legislation for financing transition sectors and/or extending the EU Sustainable Taxonomy will involve new legislative work, and therefore require time to operationalise. But they would ultimately result in a framework that recognises the role that gas-fired power and nuclear energy can play in the transition of the energy sector without needing to label them as inherently sustainable economic activities under the EU Sustainable Taxonomy. Investment in gas-fired power and nuclear energy will not cease, but rather be taking place in a market where companies and investors understand the direction of travel.

ABOUT THE PRI

The Principles for Responsible Investment (PRI) is the world's leading initiative on responsible investment. The PRI has now over 4,300 signatories (pension funds, insurers, investment managers and service providers) to the PRI's six principles, representing US $121 trillion in assets under management.

The PRI supports its international network of signatories in implementing the Principles. As long-term investors acting in the best interests of their beneficiaries and clients, our signatories work to understand the contribution that environmental, social and governance (ESG) factors make to investment performance, the role that investment plays in broader financial markets and the impact that those investments have on the environment and society as a whole.

The PRI works to achieve this sustainable global financial system by encouraging adoption of the Principles and collaboration on their implementation; by fostering good governance, integrity and accountability; and by addressing obstacles to a sustainable financial system that lie within market practices, structures and regulation.