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PJSC GAZPROM'S CONTRIBUTION TO THE CONSULTATIONS ON THE DRAFT DELEGATED ACT UNDER THE EU TAXONOMY REGULATION FOR SUSTAINABLE INVESTMENTS (the "EU Taxonomy Regulation")*:

Recognising the role of natural gas in sustainably reducing EU and global GHG emissions

This document presents the vision of options for future development of the EU energy and climate policies and legislation and suggests topics for further discussion. None of the parts of the present document, whether in full or in part, contains, represents, or otherwise implies investment, legal, financial and/or other professional advice and/or obligation. Neither PJSC Gazprom, nor any of its subsidiaries, associated or affiliated parties, partners or clients, can be held responsible for any action based on, or related to this document which is for discussion purposes only.

* Hereinafter the "delegated act" shall mean the EU draft delegated act supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives.

December 2020

PJSC Gazprom recognizes the importance of establishing clear rules for the classification of sustainable investments, both for society and businesses.

It is essential, however, that any such rules be designed in a transparent and non-discriminatory manner and aimed at achieving the Green Deal's objectives in a tangible manner.

It is also important that the rules are effective in concretely contributing to achieving the EU's climate change objectives in practice and ensure a rapid phase out of GHGs. In this context, it is necessary to consider the effect of the EU Taxonomy's rules in practice. An overly restrictive approach to the EU taxonomy classification at a relatively early point in the decarbonisation cycle can have a counter-productive effect, and in reality increase the amount of GHG emitted in the medium term, which could be avoided with a more effective and targeted action from a timing viewpoint. This is illustrated below.

***Inter alia*, one of the main shortcomings of the EU Taxonomy is a lack of a differentiated approach vis-à-vis the activities that – from the EU's perspective – do not contribute substantially to climate change mitigation, while not every activity that does not contribute to environment is necessarily harmful.**

The current version of the delegated act *de facto* excludes any economic activity related to natural gas. At the same time, in our view, the use of natural gas could substantially contribute to the EU climate objectives and seems to be well-grounded and reasonable, at least in terms of transitional activities[1].

It is understood that the current situation is a direct consequence of existing fundamental principles on which the EU Taxonomy is based. However, as shown below, there are reasonable doubts as to whether the conclusions of the Technical Expert Group on Sustainable Finance ("TEG") are fully substantiated. Besides, the implementation of the approach enshrined in the delegated act might, contrary to the EU expectations, result in failure to achieve the GHG reduction targets or in achieving those with a substantial delay.

To ensure that the design of the EU Taxonomy Regulation is not at risk of distorting the market or creating unfair competition rules, and indeed in fact results in the increase in GHG emissions in certain sectors, it is hereby suggested that the following facts and considerations are taken into account.

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[1] Hereinafter, the term "transitional activities" is used in the meaning of the EU Taxonomy Regulation and discussed as such for the purposes of this document only.

#1 Time is of the essence

Scientific evidence and relevant IPCC reports clearly demonstrate the importance of following the fastest greenhouse gas ("GHG") emission reduction path. On the path to reaching climate neutrality in 2050, early GHG reductions 'pay dividends', given the long time period that CO_2 remains in the atmosphere.

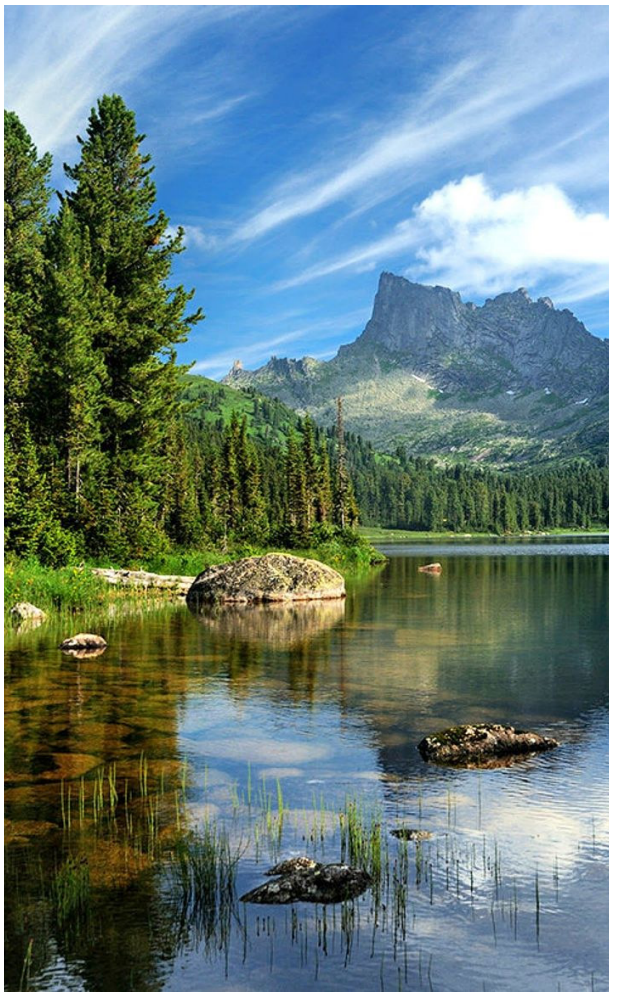
The goal of the EU Taxonomy rules should therefore not just ensure full decarbonisation by 2050, but equally incentivise and drive rapid GHG reductions, to capture this 'dividend' effect. They should certainly not act as a disincentive to achieving this.

Natural gas offers unique advantages in this respect as it enables the rapid reduction of GHG emissions at little cost for society. For example, Germany has the potential to rapidly reduce CO_2 emissions – on a scale equivalent to the reductions achieved over the past 20 years – simply by using natural gas instead of more carbon-intensive alternatives.

This is also true EU-wide. In fact, by replacing (i) coal in power generation and (ii) liquid fossil fuels in transport by natural gas, the EU would achieve GHG emissions reduction by 35-39% compared to 1990 levels[2].

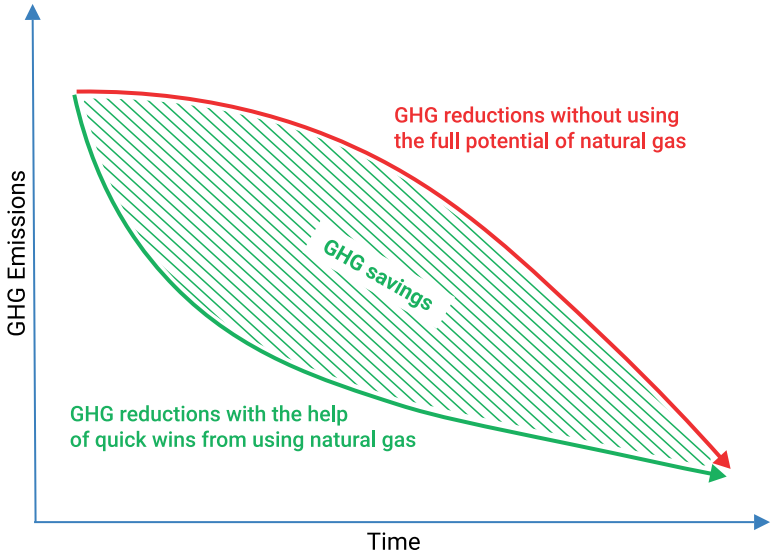
The use of natural gas in transport sector including ship bunkering can reduce emissions right away.

It is of the utmost importance that the EU Taxonomy Regulation – and, in particular, the Delegated Act under consultation – takes this reality into account and incentivises investments into all solutions that are realistically capable of delivering quick and clear results. This can be illustrated



[2] Pathways to 2050: Opportunities For The EU, Discussion Paper, PJSC Gazprom, 2018

GHG EMISSIONS REDUCTIONS PATHWAYS AND SAVINGS



USING NATURAL GAS, IT IS POSSIBLE TO QUICKLY REDUCE GHG EMISSIONS IN THE VERY SHORT TERM, SAVING A LOT OF THE AVAILABLE CARBON BUDGET COMPARED TO THE OTHER OPTIONS. AS A RESULT, TOTAL GHG EMISSIONS WILL BE MUCH SMALLER WHICH – ACCORDING TO IPCC – CLEARLY HELPS MITIGATE THE IMPACT ON CLIMATE.

by the following graph, which explains that if the benefits of natural gas are not harnessed during the transition, the EU is likely to adopt not only an expensive (and thus uncompetitive) decarbonisation strategy, but also one that results in a great deal of unnecessary CO_2 being released in the atmosphere (where it will remain for decades). The EU Taxonomy Regulation distinguishes the importance of securing investments in such activities, by explicitly providing for a category for so-called transitional activities (Art. 10 (2)), which can be classified as sustainable if they have emission levels that correspond to the best performance of the sector, do not hamper low-carbon alternatives and do not lead to lock-in effects. It is important to have a dedicated section for transitional activities in the delegated acts, and at least increasing the emission threshold for electricity/ heat/ cool generation for transitional activities to a minimum of 300g CO_2e/kWh; furthermore, allowing for all activities to be classified as transitional activities, that comply with the criteria set out in Article 10 (2) of the EU Taxonomy Regulation, that can present a credible transition pathway consistent with a climate-neutral economy and that are possible to adapt (e.g. by retrofitting or repurposing) to future technologies and solutions for the deployment of climate neutral technologies (e.g. hydrogen, methane-hydrogen mixtures, methane pyrolysis) with the continued use of existing gas transportation and distribution networks and equipment.

#2 Historical precedents and best practices confirm the GHG benefits of natural gas

The shift from more polluting fuels to natural gas that has taken place in recent years accounts for a large share of GHG reductions emitted from the electricity sector in the U.S., as well as in Middle Eastern countries and Asia.

The national energy strategies of many EU Member States – in line with their commitments under the Paris Agreement – also result to a significant extent from the benefits of natural gas as a tool to rapidly reduce GHG emissions in a cost-effective and sustainable way.

Similarly, some EU regions have recently announced plans to replace coal with natural gas, a decision that can be safely called "evidence-based" given that, for example, impressive results were achieved in the UK through the use of this approach; UK CO_2 emissions reduced by more than 30% between 2010 and 2017, largely driven by this switch.

Therefore, the EU Taxonomy should support EU Member States moving in this direction, or – at least – should not be an obstacle to such strategies, providing a risk of reversing this trend and substantially slowing down the pace of coal phase-out.

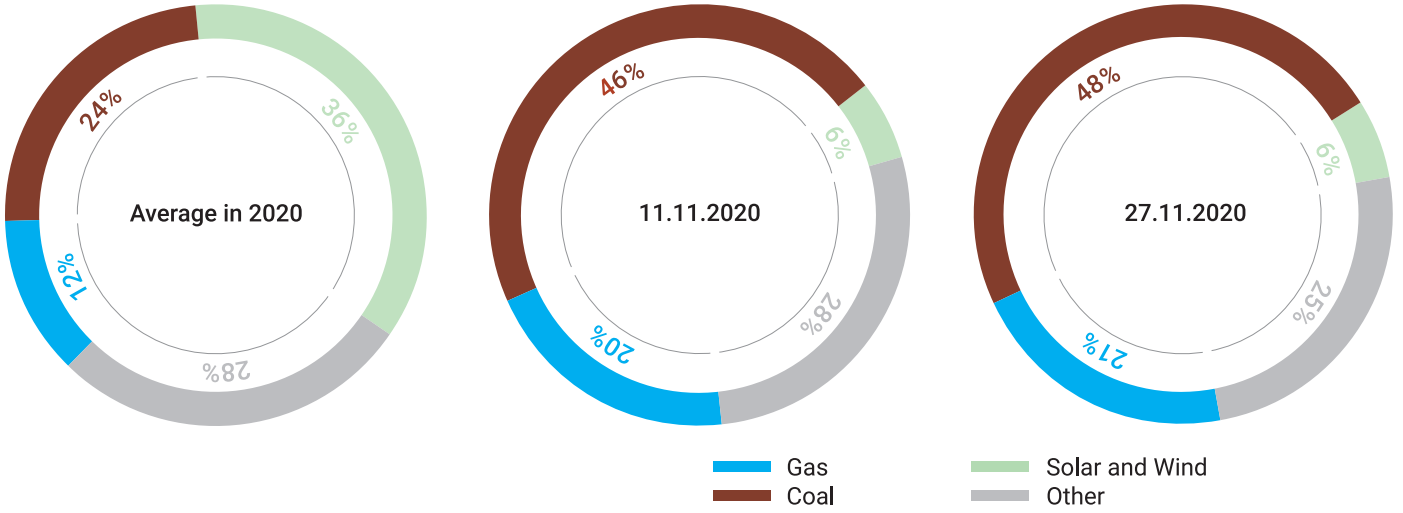
The currently proposed criteria applicable for electricity generation from gaseous and liquid fuel will, in effect, exclude even efficient combined cycle gas turbines ("CCGT(s)") and combined heat and power stations (CHP) from the EU Taxonomy.

This will limit investments in new natural gas CCGTs in EU regions where coal power plants are to be closed over the coming years (such as Germany, Poland, Bulgaria, Romania…). In some, if not all of these regions, there is already significant concern that new renewable electricity capacity will not be able to increase rapidly enough to fully substitute the closure of high capacity coal power plants. Therefore, excluding competitive and attractive finance for CCGTs is likely to simply perpetuate the operation of such coal power plants. The EU Taxonomy rules, as currently designed, by excluding new and efficient CCGTs, thus create a very significant risk of in fact resulting in the increase of GHG emissions in the short-to-medium term.

In conclusion, the EU Taxonomy's Delegated Act should ensure that investments in efficient CCGTs are aligned with the EU Taxonomy rules, given that their exclusion – in particular where counterbalancing the closure of coal plants is necessary – is highly likely to have a counterproductive effect and lead to coal-based electricity production for significantly longer than necessary. This consequence would in no way be compatible with the Green Deal and the 2050 carbon-neutrality objective.

#3 Natural gas and renewables: sustainability coupled with resilience

THE USE OF VARIOUS ENERGY SOURCES IN POWER GENERATION IN GERMANY, ENTSO-E DATA, 2020

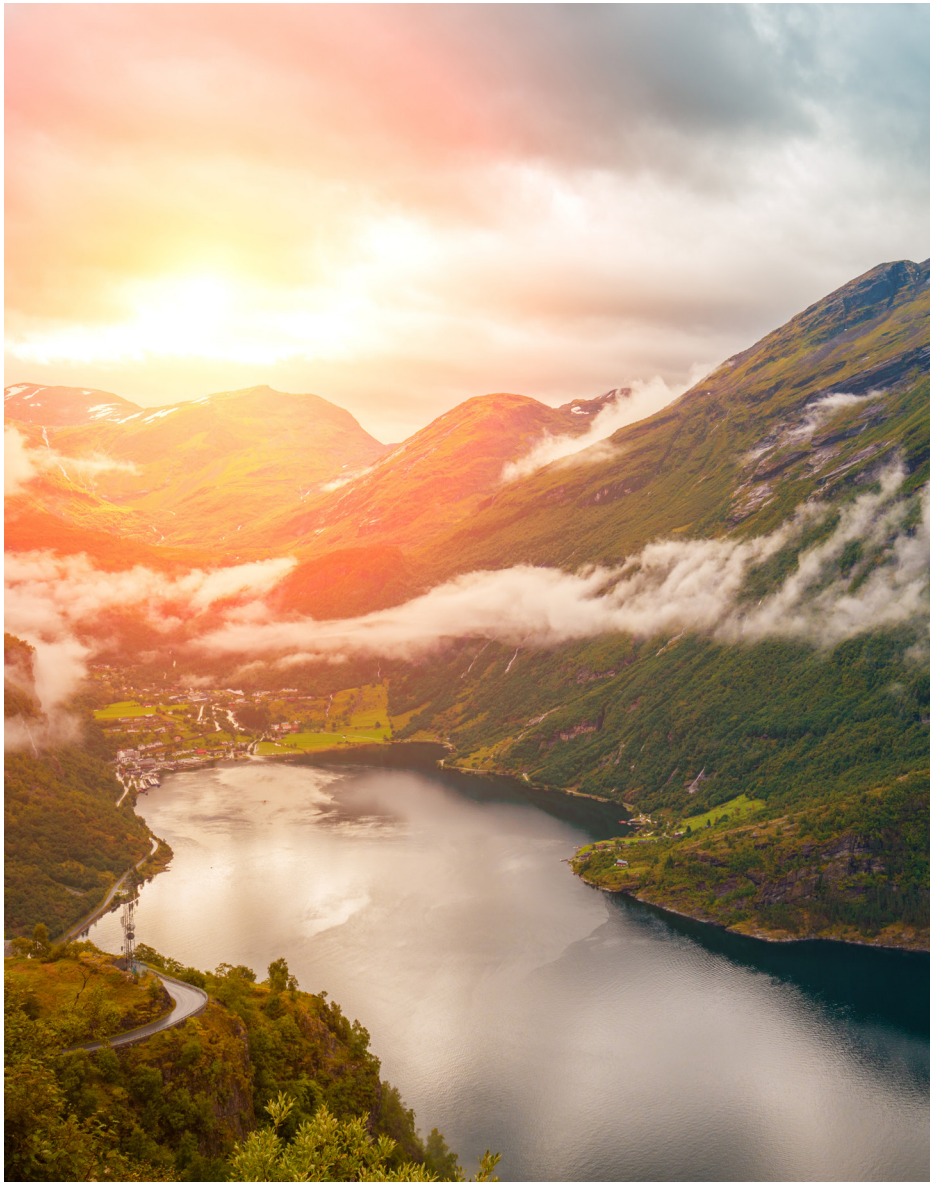


The overall sustainable development of the EU's energy system – and in particular the increased integration of renewable energy sources ("RES") – is highly dependent on the system's ability to be flexible, reliable and resilient despite the intermittent character of RES. Therefore, it is clear that gas-based backup generation capacities can reinforce positions of RES in the investment portfolios.

The risk profiles of renewables and natural gas generation technologies are practically a mirror opposite, and coupling these two types of installation creates a win-win situation. A combination of RES and natural gas represents a solid and balanced investment in the electricity sector. As it is shown on the graph, natural gas plays important role in balancing the intermittent character of RES. At the same time, the remaining significant role of coal in compensation of such RES irregularities leads to a massive increase in GHG emissions and is directly opposite to the decarbonisation goals.

In this context, the recently recast Regulation (EU) 2019/943 on the internal market for electricity recognises the important role of such backup generation capacities by setting an emissions limit of 550 g of CO_2 of fossil fuel origin per kWh of electricity for capacity remuneration schemes. Aligning the EU Taxonomy's Delegated Act – in particular Section 4.7 thereof regarding electricity generation from gaseous and liquid fuels – with this criteria would ensure a consistent and competitive approach to incentivising the sustainable development of the EU energy system and selecting functional and cost-effective solutions.

This would thus recognise the proper role of natural gas in guaranteeing security of supply and the stability of electricity production. However, such an alignment – and the associated increase of the GHG emission threshold – would in no way be a deviation from the 2050 carbon neutrality objective. Nor would it represent a recognition that this threshold would have to remain unchanged until 2050 given that the classification of sustainable investments – including this GHG emission threshold – is meant to be reviewed every three years, specifically to ensure this alignment.



#4 EU political compromise on transitional activities

The draft Delegated Act *ipso facto* leaves natural gas – without broad-scale use of carbon capture technologies – out of the scope of sustainable investments.

In this respect, however, the European Commission's statement regarding the political compromise that was reached on the EU Taxonomy (i.e. the EU-wide classification system for sustainable investments[3]) seems to be more balanced vis-à-vis natural gas investments having GHG emissions reduction as an objective.

The proper implementation of Article 10 (2) of the EU Taxonomy Regulation that enshrines the aforementioned political compromise requires notably the increase of the GHG emission threshold to the levels described above, as well as a differentiation of the criteria that must be complied with between 'purely green' and 'transitional activities'.

This is the only way to properly implement the notion of 'transition' foreseen by the EU Taxonomy Regulation. Given that no widespread and ready-for-deployment electricity production technology based on gaseous or liquid fuels can currently achieve the 100 g CO_2e/kWh, this cannot be considered as a proper implementation of the concept of 'transition'.

Regarding natural gas in particular, given the current rate of development of technologies addressing methane fugitive emissions ("FME"), it can safely be assumed that excluding

natural gas from the list would be a hasty and unbalanced decision which neglects recent – and foreseeable – scientific and technological advances. In general, all issues of concern attributed to natural gas, including (but not limited) to FME, have always been – and will continue to be – the constant focus of gas market players, which have already been working for many years to make gas even cleaner. The EU Taxonomy should therefore take into account such scientific and technological developments, rather than peremptorily build on biased facts and assumptions.

[3] https://ec.europa.eu/commission/presscorner/detail/it/qanda_19_6804

#5 The questions related to the production and use of hydrogen

The European Commission's recent Hydrogen Strategy recognises the importance of low and zero-carbon hydrogen for its future energy system. It is vital that the EU Taxonomy enables the development of a cost-effective low and zero-carbon hydrogen market, and drives its development to ensure a zero-carbon market by 2050.

The GHG emissions threshold for the hydrogen production as proposed in the Delegated Act has been basically halved compared to the final recommendation by the Commission appointed expert group, from 5.8 tCO_2e/tH_2 to 2.256 tCO_2e/tH_2, without providing any specific justification.

This new proposed threshold is likely to lead to the exclusion of both zero-carbon and renewable hydrogen production methods.

On the one hand, it seems to exclude hydrogen production through electrolysis from many solar installations. On the other hand, it also seems to exclude many promising new technologies such as pyrolysis powered by renewable electricity, which – according to the emergent research – may well be the cheapest and most competitive way to produce zero-carbon hydrogen. In particular, by refusing to take into account the possible offset of residual CO_2 emissions resulting from (very low) FME in the overall CO_2 calculation, the revision may unjustifiably exclude pyrolysis from being aligned with the EU Taxonomy.

This exceedingly restrictive and seemingly arbitrary threshold for production poses a real risk of undermining the EU Hydrogen Strategy, as it is likely to disincentivise investments in certain emerging critical renewable and zero-carbon hydrogen production technologies in a manner incompatible with the Commission's own vision. It is likely to lead to a 'one-sided' development of the market; if it excludes certain competitive technologies that will develop into truly zero-carbon sources, the effect of the new rules will be to force their development outside the EU, notably in China.

The Commission has not given reasons, nor widely consulted on this change, reinforcing the comments raised below regarding the need for a highly transparent process. In the absence of compelling justification, and an in depth public debate on this issue, the threshold proposed by the TEG should be retained.

#6 Transparent decision-making process is required

The decision-making process behind the EU Taxonomy Regulation should be transparent, professional, and evidence-based. The suggested classification should incentivise sustainable development in a fair manner, without putting artificial hurdles on businesses and society or creating unjustified incentives for selected technological or business solutions.

However, the current EU Taxonomy Regulation – complemented by the current draft Delegated Act – can lead to the unbalanced development of the energy system, in particular with respect to balancing needs for renewable energy sources (as shown above). This creates serious risks of reducing the stability of the energy system, as some European regions experienced quite recently.

It seems necessary to ensure that sustainable development is not achieved at a cost of distorting the economy and market rules, and that detailed technical assessment and public scrutiny underpin every decision. The potential effect of the Regulation and Delegated Act should not be underestimated. Not only will they make non-taxonomy investments progressively more difficult to finance, such investments will be considered to be 'unfavourable' from a corporate viewpoint.

Legislation of this importance thus requires full transparency in its development. The TEG, whilst valuable, cannot be considered in itself to meet such a transparency requirement. Furthermore, the composition of the Working Group of the Platform on Sustainable Finance was known in October, its work was already finished in November, – it can testify that the decisions were not well considered taking into account all consequences.

We would therefore suggest a wider public debate on the issue and more in-depth consultation regarding the approach in the Delegated Act, which is far from a simple 'technical' provision.

In this respect, the Do-No-Significant-Harm criteria (DNSH) needs to be applied in an equal and harmonized way for all technologies and energy sources looking at all impact categories [Global warming, Ozone depletion, Acidification of soil and water, Eutrophication, Photochemical ozone creation, Depletion of abiotic resources, Human toxicity, Fresh water aquatic ecotoxicity, Marine aquatic ecotoxicity, Terrestrial ecotoxicity, Water pollution, Air pollution and Land use] via a uniform Life Cycle Emissions Assessment (LCEA) based on the European Commission life-cycle database[4] in conformity with corresponding ISO standards, including ISO/TS 14071:2014 (critical review).

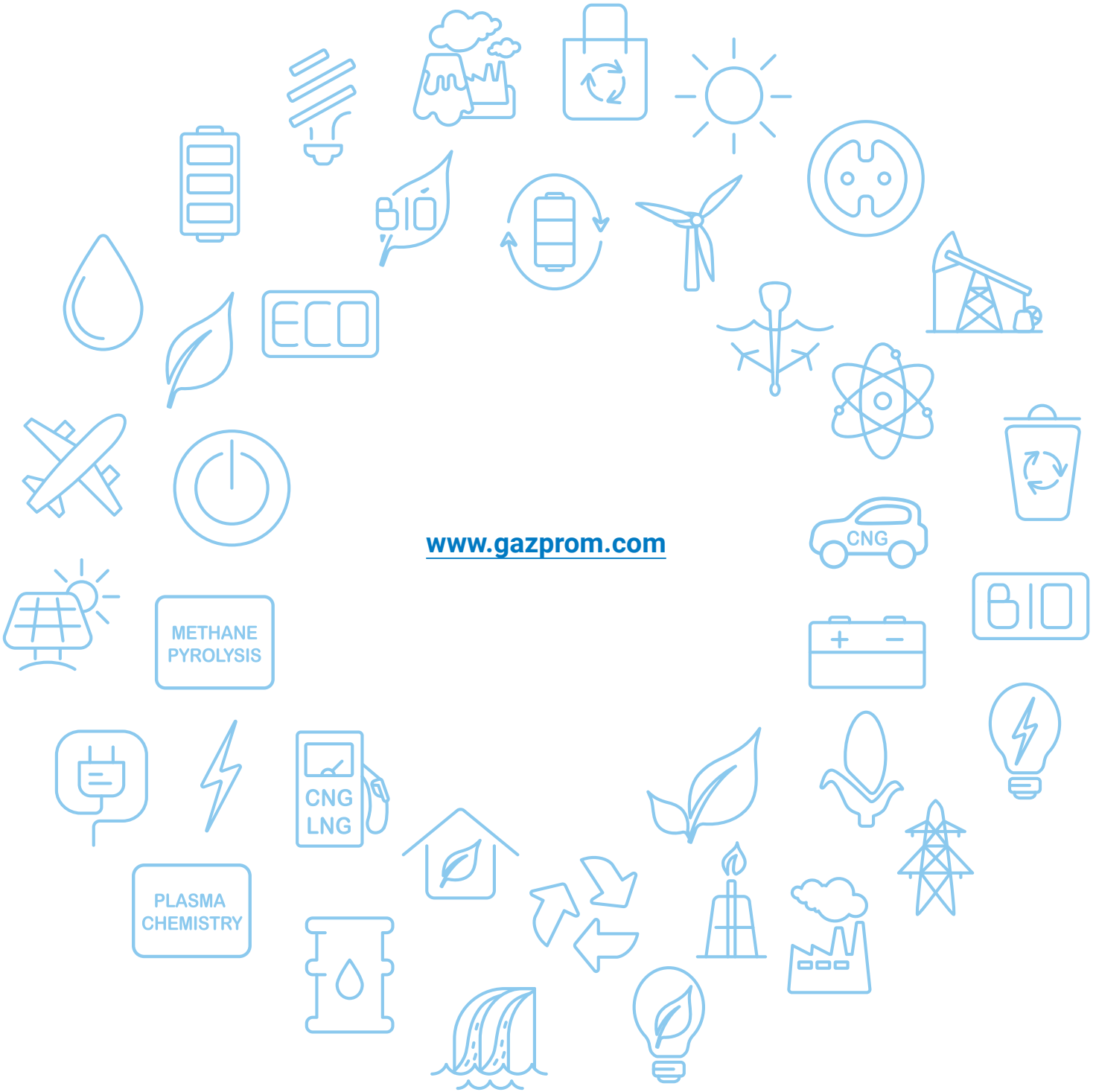
If the DNSH and LCEA are not applied in an equal and harmonized way to all technologies and energy sources, this might lead to an unequal treatment and uneven playing field, resulting in market distortion and a foregone conclusion that might not lead to a reduction of the environmental footprint but solely give the preference to one technology over another.

[4] For example, see the European Commission "Product Environmental Footprint (PEF) database. https://ec.europa.eu/environment/eussd/smgp/pdf/PEFCR_guidance_v6.3.pdf (P)EF compliant data guide https://publications.jrc.ec.europa.eu/repository/bitstream/JRC116052/guide_ef_data_online.pdf

#7 Conclusion

Whilst recognising the importance of establishing clear rules for the classification for sustainable investments, PJSC Gazprom calls for an objective and non-discriminatory assessment of all energy sources and technologies that may effectively contribute to the EU's future sustainable development, in particular those relating to the transition towards carbon neutrality and the future hydrogen economy.

It stands ready to facilitate sustainable low-carbon development in line with the EU Green Deal by unlocking the full potential of natural gas and hydrogen produced from natural gas. It is therefore suggested that the EU Taxonomy should leave the door open for future technological and scientific advances and faithfully implement the notion of transitional activities foreseen by the political compromise on the EU Taxonomy.



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