Supplementary questions (15 June) - Stakeholder Engagement on the EIB Group's Climate Bank Roadmap 2021-2025

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How did you hear about this engagement exercise?

EIB email

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Yes

I give my consent for the EIB to publish, in relation to this engagement process, my first name, surname, email address and function.
Yes

Green recovery

Question 1A: How can the EIB Group help turn the current health and economic crisis, related to the COVID-19 pandemic, into an opportunity to promote and accelerate the green transition?
The COVID-19 outbreak has unleashed an unprecedented socio-economic crisis in Europe, and globally, which is affecting all citizens and all economic activities. Our member companies are prioritising above any other consideration, the safety and health of their staff. They do so while maintaining an essential service: supplying energy to Europe, allowing to sustain the response to the pandemic. Our companies are directly engaged in fighting the COVID-19, for example by supporting hospitals and healthcare workers by supplying free fuel, medical equipment, supercomputer calculation capacity and ramping up the production of chemicals used in the hand sanitizers (1). While the crisis is first and foremost human, the economic consequences loom large and raise several questions around Europe's future strategic industrial capacity. Without industrial activity in Europe, there will not be any future economic recovery and growth. At the same time, efforts are being pursued to increase the GHG emission reduction ambitions of the Union. To deliver economic recovery and more significant GHG emission reductions, public and private sector efforts should now become more focused on scale and costs. IOGP, therefore, believes that public support should concentrate on industrial-scale carbon management projects. Indeed, the only industry that can deliver the scale of projects required to reach the EU climate goals while, as a priority, maintaining existing jobs and stimulating the creation of new ones. Given the long investment cycles, these measures need to come along with long-term visibility and investment security. In this context, and as recently confirmed by the IEA, investments in large-scale industrial carbon management technologies, such as carbon capture and storage (CCS) and hydrogen, will play a vital role to meet the European Green Deal objectives (2). We, therefore, urge the EIB to include these large-scale investments in its Climate Bank Roadmap 2021-2025. 1) https://www.oilandgaseurope.org/news/covid-19-updates-industry-response-and-impact/ 2) https://www.iea.org/commentaries/put-clean-energy-at-the-heart-of-stimulus-plans-to-counter-the-coronavirus-crisis

Decarbonisation pathways, investment

Question 2: Do you agree with the key themes of the decarbonisation pathway presented? Are there additional areas of investment for mitigation that the EIB Group should be considering?

The Commission's Communication "A Clean Planet for all" outlines actions to reach a net-zero greenhouse gas economy along with a set of seven main strategic building blocks. These relate to 1) energy efficiency, 2) renewables, including power-to-x, 3) clean mobility, 4) industry and circular economy, 5) smart network infrastructure and interconnections, 6) bio-economy and carbon sinks and 7) carbon capture and storage.
The EIB Group Climate Bank Roadmap 2021-2025 position paper takes CCS into account in the context of carbon removal techniques (e.g. BECCS and DACCS). However, it does not consider CCS as a climate change mitigation activity for the direct mitigation of emissions from energy-intensive industries and the production of clean hydrogen from natural gas reforming. Deploying CCS as a large-scale solution is considered integral to reaching climate neutrality, as acknowledged by the IEA and the UN IPCC 1.5°C Report. Both reports stress that CCS is critical to achieving carbon neutrality at significantly lower societal cost successfully.
To provide a more comparative approach, for example, the 1.5°C compliant "Clean Planet for all" scenarios rely on CCS deployed by industry, for clean hydrogen production and on BECCS for negative emissions, storing 80-298 million tonnes of captured CO2 underground by 2050 in 1.5LIFE and 1.5TECH respectively (3). To meet such scenarios, CCS capacity in Europe would need to increase by a factor of between 53 and 192 by 2050. In this context, CCS is an emission mitigation solution for the energy and industrial sectors as well as its associated transport and storage infrastructure should be taken into consideration as an area of investment by the EIB.

(3) European Commission (2018). Figure 89: CO2 capture and storage or reuse (2050). In: Supplementary Information: In-depth analysis in support of the Commission Communication COM(2018) 773, p. 73.

Economic appraisal; carbon pricing

Question 3A: Should the EIB use an additional safeguard, above and beyond a standard economic test with a carbon price, in assessing the alignment of projects? If so, when and why?

When assessing the alignment of projects, the EIB should take into account the different specificities of the countries and regions in which they are developed. As highlighted in their NECPs, each Member State has a different starting point on the pathway to reach the climate neutrality. For this reason, while selecting projects on top of the GHG emission reductions, the EIB could consider aspects like abatement costs, contribution to energy security or creating new jobs.
Projects that facilitate the transition of energy-intensive sectors while preserving local economies and jobs will have substantial social benefits. The EIB could improve the social angle of projects by asking the companies that obtain financing instruments for details on the potential of job creation, etc.

Question 3B: The EIB's current carbon price out to 2050 is available in Annex V of the Energy Lending Policy. Are there any set of prices that you would recommend to be consistent with a 1.5°C temperature target?

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Consistency of ''hard to abate'' sectors with low-carbon pathways

Question 4A: How should the EIB approach supporting ‘’hard to abate’’ sectors – such as energy-intensive industry, airports, strategic roads, agriculture – to decarbonise? (See also additional, sector-specific questions – 4D-4H – on the next page)

Energy Intensive Industries (EIIs) represent the foundations of critical and strategic value chains that enable the EU economy and society. EIIs also produce goods that facilitate the reduction of emissions in other sectors of the economy. Iron and steel, minerals, refineries and chemical sectors employ around 3.2 million citizens in the EU, equivalent of above 10% of total employment in the industry. These four sectors contribute about 15% of the total value added of manufacturing in the EU. As recognised by the European Commission’s Communication “A New Industrial Strategy for Europe” and the “Masterplan for a Competitive Transformation of EU Energy-intensive Industries”, the European industry will play a crucial role to meet the climate targets while contributing to building a prosperous and sustainable economic future. In particular, the EIB should focus its financing activities on early-stage, pre-commercial technologies enabling the transformation of EIIs, such as Carbon Capture Use and Storage (CCUS) and hydrogen solutions.

Deploying CCS as a large-scale solution is considered integral to reaching climate neutrality, as acknowledged by the IEA, the UN IPCC in its 1.5°C Special Report and the European Commission in its Communication “A Clean Planet for All”. Independent experts find that CCS is critical to achieving carbon neutrality at significantly lower societal cost successfully. CCS is particularly essential to lower emissions of industrial processes that are difficult to electrify. CCS can help minimise the carbon footprint of energy-intensive industries such as the steel, cement, refining, and chemical sector, and help retain their role in a lower carbon EU economy. Some techniques enable capturing CO2 released by industrial processes and convert them into valuable applications (e.g. construction materials, raw materials for the chemical industry, etc.). This way, CCU can contribute to a circular economy subject to lifecycle analysis and clear carbon accounting rules.

Developing CCUS is more than a climate policy, it is an industrial policy: developing a large scale CO2 transport network and disposal facilities would allow the EU to take global leadership in retaining energy-intensive industries while attracting new ones. Further, it would enable this critical technology to be recognised as future-proved and exported to support scaled commercialisation globally, which will be needed to achieve ambitious emissions goals. While CCUS technologies are proven and available (1), access to CO2 transport and storage infrastructure remains a barrier to EU deployment. Funding in this area is critical, in particular via research projects that could focus on cost-cutting and optimisation of regional and cross-country CO2 transport via ships and pipelines to storage locations. Moreover, CCUS can provide significant value for the economy in Europe. A study by SINTEF in 2018 demonstrated that a European CCUS industry could support up to 40,000 jobs by 2030 and up to 90,000 by 2050, both by retaining existing high-value jobs in process industries and industry (2).

As for CCUS projects, we would like to offer the following recommendations based on the experience on the NER300 programme and the ETS Innovation Fund:
• The priority should be given to large projects with a massive CO2 abatement potential. For the funding programmes to be more effective, they should be focused on fewer impactful projects rather than spreading funds across too many projects.
• There should not be restrictive funding limits to a specific project.
• EIB financing should be made compatible with other EU funding programmes to be able to cumulate different funding options.
• International cooperation should be bolstered to allow cross-learning with projects outside the EU. EIB funding should also be eligible for projects that are developed partially or entirely outside the EU.
• The level of funding support for all technologies should mirror the development of technologies as they progress along the technology learning curve, i.e. support level should be adjusted downwards as technologies become more mature and more economical.
• EIB’s funding could consider both CAPEX (capital costs) and OPEX (operating costs). In particular, it should be designed in a way which allows adjustments when the OPEX estimate does not match with the OPEX assumption at the time of the application.

(1) https://www.oilandgaseurope.org/news/map-of-eu-ccs-projects/
(2) https://www.nho.no/siteassets/nhos-filer-og-bilder/filer-og-dokumenter/energi-og-klima/industrial-opportunities-ccs_english.pdf

Question 4B: Do you think the preliminary thinking and conditions set out in Chapter 3 are appropriate? If not, what alternative conditions or criteria would you suggest?

IOGP welcomes the EIB's sectoral focus on industry and the recognition of the (2019) Masterplan for Energy Intensive Industries (EEIs). Decarbonisation of the industry is technically possible through a combination of technical solutions, including hydrogen and CCS. IOGP would further support a focus on ensuring significant short-term benefits through a reduction in carbon intensity, which could be realised through energy efficiency gains or a switch from coal to natural gas. In the longer term, assets can be decarbonised through the development of CCS and hydrogen. These solutions will be needed in a climate-neutral economy, and the EIB should support their development and full-scale commercial deployment.
Keeping technology options open and enabling fair competition between all potential clean hydrogen production pathways (from natural gas reforming with CCS, methane pyrolysis and renewables) will be essential to ensure sufficient volumes, avoid market fragmentation and delivering cost-efficient emission reductions across the EU. The EIB should take into account various starting points, national hydrogen strategies and NECPs to support all EU Member States on their respective pathways to decarbonisation.
• Ensuring sufficient volumes: Today, hydrogen produced from natural gas delivers the lion's share of industrial hydrogen globally while hydrogen from electrolysis is produced in smaller volumes (ca. 1%) (1). Scaling up clean hydrogen from renewables will require large amounts of renewable electricity. Meeting the EU carbon neutrality objective by 2050 will require large volumes of hydrogen with a low CO2 footprint (2). For this reason, clean hydrogen from all sources must be equally supported to play its role in scaling up and contributing to the cost-efficient development of infrastructure and markets.

• Delivering cost-efficient emission reductions: Renewable gases should be treated on a level playing field with other low-carbon gases. All low-carbon gases, including "green" and "blue" hydrogen should be rewarded for their contribution to decarbonisation goals. Therefore, IOGP supports one standardised system for Guarantees of Origin and the subsequent certification of both renewable and non-renewable gases which includes the GHG emissions from the product based on a standardised life-cycle analysis. A technology-neutral approach based on GHG intensity can support all low-carbon gases and allow them to compete, which will accelerate their deployment and deliver the most cost-effective solutions for the decarbonisation of gas while stimulating infrastructure and market development as well as R&D.

Member States plan for clean hydrogen: In an early assessment of final NECPs (as of April 2020), IOGP found that four EU countries are preparing for CCS projects by 2030, and 12 will undertake CCS R&D activities within national and European research programmes. 22 Member States are positive to clean hydrogen, and among those, five are positive to clean hydrogen from natural gas with CCS. IOGP further notes that the Dutch hydrogen strategy seeks to scale up clean hydrogen both from renewables and from natural gas with CCU and CCS, whereas the German hydrogen strategy is open to all clean hydrogen as part of future European and international hydrogen markets. The Pentalateral Energy Forum will strengthen cooperation both on "hydrogen produced in a CO2 reducing manner" and on renewable hydrogen. In this context, the EIB should support all EU Member States on their respective pathways to decarbonisation.

(1) IEA (2019): The future of hydrogen.
(2) See, e.g. the High-Level Group on Energy Intensive Industries (2019) Masterplan for a competitive transformation of EU energy-intensive industries enabling a climate-neutral, circular economy by 2050.

Question 4C: How should the EIB consider consistency with low-carbon development in the context of supporting small and medium enterprises through financial intermediaries?

Consistency of ''hard to abate'' sectors with low-carbon pathways (continued)

Industry For further information see paragraph 3.46 of the EIB Group's Position Paper. Question 4D: Under what conditions should the EIB support new industrial capacity? Would the conditions proposed ensure EIB projects are consistent with a low-carbon pathway?

To ensure remaining on a low-carbon pathway, the EIB should consider the following conditions:
The EIB should allocate funding to promote innovative and sustainable projects as well as supporting the transformation of industries. Investment priorities should be aligned with key political objectives and initiatives to be consistent with a low-carbon pathway. The industry stands fully committed to investing in its transition towards achieving the short- and long-term EU climate targets. However, additional support from the EU will be needed to ensure that these investments will take place. Investing in innovation will help European companies to respond to competition on the international stage in light of the immediate and future geopolitical developments to continue as global leaders in many sectors.
Investing in low-carbon technologies is essential to achieve the 2050 climate neutrality objective while creating high-skilled jobs in Europe. For example, there is potential for between 80,000 and 90,000 new jobs in Europe in 2050 directly linked to CO2 capture, transport and storage, and the sum of direct and indirectly related jobs may approach 150.000 in 2050 (1). CCS in Europe can also potentially support the development of a hydrogen economy which could provide up to 5.4 million jobs by 2050 (2), as well as the retention of existing jobs in energy-intensive industries (3).

(1) SINTEF (2018): Industrial opportunities and employment prospects in large-scale CO2 management in Norway. Available from:
https://www.nho.no/contentassets/e41282b08ceb49f18b63d0f4cc9c5270/industrial-opportunities-ccs_english.pdf
(2) FCH JU (2019): Hydrogen Roadmap Europe. Available from:
https://www.fch.europa.eu/sites/default/files/Hydrogen%20Roadmap%20Europe_Report.pdf
(3) High-Level Group on Energy-intensive industries (2019): Masterplan for a Competitive Transformation of EU Energy-intensive Industries Enabling a Climate-neutral Circular Economy by 2050. Available from:
https://ec.europa.eu/docsroom/documents/38403

Transport For further information see paragraphs 3.56 to 3.80 of the EIB Group's Position Paper. Question 4E: What kinds of investments in transport systems should the EIB prioritise to simultaneously serve the goals of decarbonisation; accessibility in all regions and by all groups in society?

Low-carbon and natural gas can contribute to the EU's efforts in reducing emissions from the transport sector. In the shipping industry, liquefied natural gas (LNG) offers an available solution for short and long-distance large vessels in the short- and medium-term, as does clean hydrogen (including ammonia, methanol) in the longer term. This quality advantages LNG relative to other technologies, such as batteries, which currently constitute a supplement to traditional ship engines rather than an alternative. Based on today's technology, large vessels cannot sail across oceans running solely on electric engines. The IMO has set an ambitious emissions reduction target of at least 50% GHG by 2050 versus 2008, as a result of which the shipping industry will need to be ready to build lower-carbon vessels in the next 10-15 years. LNG provides near-term opportunities to address the IMO ambition. Since the introduction of gas-fuelled engines, engine manufacturers have implemented a range of measures to reduce methane slip. Since 1990's methane slip was decreased by a factor of four and engine manufacturers, continue to invest in R&D to reduce the amount of slippage further. Hence, not only there is significant abatement potential in selecting the proper engines among the available models, but the manufacturers are on a pathway to reduce methane slips even further (1).

In the long-term, the use of liquefied biomethane (LBM) and liquefied synthetic methane (LSM), hydrogen, ammonia, methanol and other options can contribute to lowering emissions.
Also in other transport sectors, in particular heavy road transport and public transport, natural gas (LNG and CNG) provide a readily available option for emission reduction, whereas electric possibilities are still under development. As for road transport, the use of natural gas (CNG/LNG) has some emissions advantages as it is inherently cleaner burning. Gas can also help the shipping industry meet more stringent emissions targets set by the 2020 IMO regulations. Using liquefied natural gas (LNG) as a marine transport fuel can reduce SOx emissions by 100%, NOx by 80-90% and CO2 emissions by up to 21%. Electrification is immature for aviation, the marine sector or even long haul heavy-duty transport. Therefore, for example, low-carbon liquid fuels (including sustainable biofuels) are an essential option and should be prioritised by the EIB.

(1) Source: Wärtsilä, MAN ES, Caterpillar & WIN GD

Buildings For further information see paragraph 3.95 of the EIB Group's Position Paper Question 4F: In the case of new buildings outside the EU, how should the EIB ensure consistency of its projects with a low-carbon pathway?

Both in the case of new buildings in the EU and outside the EU, IOGP would recommend focusing on cost-effectiveness, by ensuring competition between projects and technologies delivering energy savings, CO2 emission reductions, improvement of air quality and other environmental benefits.
Heating accounts for a third of EU GHG emissions and half of final energy demand. In Poland, half of the housing stock is still heated with coal, while the renovation rate still needs to be improved to reach the desired 2.5% of floor area p.a. (1)
In their NECPs, Bulgaria, Greece, Slovakia and Spain further outline that their heating sectors will rely, among other things, on natural gas or natural gas-based CHP to reach 2030 targets. EU Member States face different challenges with reducing emissions from heating, and it is therefore essential to offer a wide range of realistic, affordable heating alternatives. For example, replacing inefficient and carbon-intensive heating technologies with condensing gas boilers is one solution that can immediately reduce CO2, NOx, SOx and PM emissions, improve air quality and increase efficiency at a significantly lower cost than alternatives.(2) Analyses by the IEA, which take into account both CO2 and methane emissions, show that coal-to-gas switching in heating reduces emissions by 33%.(3) GasNaturally provides an overview of scenarios for technology and market development for gas appliances in residential, commercial and industrial sectors.(4)

The European Court of Auditors has recently assessed whether EU co-funded energy efficiency investments in buildings have cost-effectively helped the EU toward its 2020 energy-saving target (5). The auditors concluded that a cost-effectiveness rationale had not driven operational programmes and project selection. Because of a lack of comparative assessment, projects delivering higher energy savings or other benefits at a lower cost have not been prioritised. To achieve affordable, efficient heating with a lower carbon footprint, a wide range of technological solutions must be enabled to compete.

The EIB should contribute to bringing a greater focus on cost-effectiveness in buildings and building renovation by ensuring greater competition between projects and technologies that deliver energy savings, CO2 emission reductions, improvement of air quality and other environmental benefits.

(1) BPIE (2018) Financing renovation of buildings in Poland - An overview of public funding allocation for the renovation of buildings in Poland.
(2) Cedigas, 2014; CEGIBAT, 2019.
(3) IEA (2019) The Role of Gas in Today's Energy Transitions.
(4) GasNaturally (2020). Gas Appliances: Robust technologies for a carbon-neutral future.
(5) ECA (2020). Special Report 11/2020: Energy efficiency in buildings: greater focus on cost-effectiveness still needed.

Bioeconomy and land use For further information see paragraph 3.116 of the EIB Group's Position Paper. Question 4G: Taking into account the range of intensive/extensive animal production systems across the world, how can the EIB best support the meat and dairy industry to be consistent with a low-carbon pathway? Would the conditions proposed suffice? If not, what additional/alternative criteria should be considered?

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For further information see paragraph 3.111 of the EIB Group's Position Paper. Question 4H: How can EIB support for LULUCF (Land Use, Land Use Change, Forestry) be increased? Can agriculture – besides forestry – make a significant contribution to LULUCF through differentiated cropland management options?

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Consistency with climate-resilient pathway

Question 5A: Engineering codes and practices applied in many countries rely on historic climatic data. By contrast, good practice in adaptation uses forward-looking climatic data. In considering consistency with climate-resilient development, how could the EIB contribute to encouraging best practice in this area, including through the updating of engineering standards and building codes?

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Question 5B: How should the EIB consider consistency with climate resilience development in the context of supporting small and medium-sized enterprises through financial intermediaries?

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Definitions

Question 6A: Do you foresee the need to adopt different standards inside and outside the EU in defining technical criteria for non-climate objectives under the EU Taxonomy (water, pollution prevention, circular economy and biodiversity)?

Each Member State has a different starting point in the energy transition entailing varying investment needs. The specific characteristics of various sectors and requirements should be taken into account while developing the EU Taxonomy. The same applies to other jurisdiction outside the EU. The EU Taxonomy should recognise that other regions and jurisdictions may have different drivers and boundary conditions. Therefore, the EU requirements may not be applicable as such globally. The EU Taxonomy applied outside the EU should be flexible to promote a different level of investment needed in each jurisdiction to reach the Paris Agreement goals - this is particularly true for the much-needed switch from coal to gas in the world.
The EU should aim for international coordination and dialogue on the taxonomy. In this context, the International Platform on Sustainable Finance (IPSF) launched by the European Commission is a suitable means to achieve a coherent framework on sustainable finance while recognising regional differences around the globe.

Question 6B: How can the EIB best promote the fast uptake of the EU Taxonomy amongst other financial institutions, both inside and outside the EU?

If the EIB plans to use the EU Taxonomy in assessing the financing of its projects and promote its use inside and outside the EU, the EIB should be aware of the EU Taxonomy's limitations:

a) The EU Taxonomy is a dynamic tool. The first two delegated acts on climate change mitigation and adaptation will be limited in terms of the scope, and some activities may not be considered or overlooked, like CCU. Therefore, relying on the EU Taxonomy for assessing projects might reduce the range of technologies the EIB can invest in, harming the technological neutral approach that should guide the EIB financing activities. The explicit endorsement should be given to any technology with the potential to reduce CO2 emissions. No technology or activity that has the potential to contribute a combination of avoided abatement costs should be ruled out upfront.

b) The EU Taxonomy, as currently designed by the TEG, does not give enough attention to transitional activities. Financing projects that are intended to enable significant improvements towards decarbonisation, reduction in environmental footprint, or improved resource efficiency in key sectors of the economy will be crucial in achieving the EU's objective of climate neutrality. Focusing on the most sustainable sectors could have a limited impact on the real economy and may not provide incentives for high-emitting sectors and companies to lower their emissions. The EIB should ensure that "transitional activities" receive adequate funding to accelerate the energy transition.

c) The stringent technical criteria proposed by the TEG on power generation will de facto exclude investment in natural gas power generation. This approach could have negative repercussions on the energy transition in Europe, particularly in those Member States that rely on natural gas to shift away from coal. In its European Union 2020 Energy Policy Review published on 25 June 2020, the IEA urged the European Commission to include natural gas in the EU Taxonomy to ensure a "level playing field for investors and technologies, including natural gas and nuclear, for those countries that rely on it" (1). The IEA also stated that natural gas could potentially be labelled as an enabling or transitional activity in full respect of the 'do no significant harm' principle.

• The technical screening criteria of the EU Taxonomy have not yet been defined and implemented, and as such, it is premature to predict the likelihood of its usability. It is crucial to monitor the implementation of the EU Taxonomy and its impact on financial markets, before considering its compatibility with, and transferability to, other areas. The EU Taxonomy needs to be thoroughly impact assessed to make sure it is 'fit for purpose' for the EIB and any other use in the public sector. The market share of economic activities which are taxonomy-aligned needs to be investigated to ensure compatibility with the goals of the EIB Climate Bank. The excessively stringent criteria proposed by the TEG might create a niche market, which is not suitable with the EIB objective to invest €1 trillion in the next decade.

(1) https://www.iea.org/reports/european-union-2020