

Public Consultation on the EIB Energy Lending Policy

Response from the Zero Emission Technology and Innovation Platform (ZEP)

ZEP welcome the approach of the European Investment Bank (EIB) in recognising that decarbonisation goals will be achieved using a variety of technologies, including those to decarbonise heat. ZEP is encouraged by the identification of the need for a flexible investment framework, as one solution cannot be applicable across different regions of Europe.

Funding alignment with member state and the European Commission's ambitions is essential to deliver decarbonisation and unlock investment. The EIB Energy Lending Policies objective to align with the EU funding mechanisms, the Long-term strategy and with member states National Energy and Climate Plans (NECPs) will deliver the required stable mechanisms to encourage industrial and governmental decarbonisation investment.

General

Q1: Do paragraphs 15-27 above provide a reasonable characterisation of the long-term energy transformation? Are there additional dimensions that the Bank should consider when reviewing its Energy Lending Policy?

There is an assumption that limiting green house gas emissions can only be achieved by the cessation of fossil fuel use. The rapid phasing out of fossil fuels has been shown to be more expensive and have a greater detrimental societal impact ¹ than utilising a portfolio of decarbonisation technologies including fossil fuels with carbon capture and storage.

We agree with the points raised in Paragraph 17, however CCS should be more central to plans to allow the fairest social and economic energy transition. According to the IPCC 5th Assessment Report on Climate Change, in scenarios which deliver on the Paris climate goals without CCS, the cost rose by 138% and there were fewer scenarios which could achieve sufficient emissions reduction². There is still a need to make fossil fuel usage with CCS compatible with lending policy.

Carbon capture, utilisation and storage technologies are covered by many of the funding policies mentioned within the EIB Energy Lending Policy document, such as the SET-Plan. However, CCS and CCU are not given the explicit exposure in this document which befits their importance to decarbonisation plans outlined in member states NECPs, and by the European Commission.

¹ https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf

² As Above

Important negative emission technologies have not been recognised in the EIB Energy Lending Policy Plans. Technologies such as bio-energy carbon capture and storage (BECCS), and direct air capture carbon storage (DACCS) have been highlighted as essential to decarbonise Europe in a net-zero scenario³. Currently there are no incentives in place to encourage the development of negative emissions. ZEP calls for the EIB to highlight the need for investment and policy incentives for negative emissions technologies.

ZEP welcomes the EIB's recognition that hydrogen has a growing role in the decarbonisation challenge of Europe. However, we feel the full potential of hydrogen generation from both steam gas reforming (SMR) with CCS and electrolysis of water has not been adequately considered. Hydrogen can have many cross-sector decarbonising applications such as transport, power generation⁴ and heating⁵. The EIB should consider in their future Energy Lending Policy the potential for a European hydrogen economy.

It seems unlikely that electricity alone will be sufficient to deal with hard to decarbonise sectors such as heavy industry and cement production. There is an increasing awareness that hydrogen has a central role across several sectors. Hydrogen can open sector coupling, for example hydrogen production with steam methane reforming, this cross sector opportunity requires support, but can unlock a global hydrogen market for 'blue' and 'green' hydrogen.

Q2: As set out in Box 1, the Bank believes it has a robust framework to ensure that energy projects being financed are compatible with long-term climate targets. Do you agree? Are there areas where the Bank can improve?

We agree that an economic test is necessary when financing energy projects. The EPS is effective at prohibiting certain activities such as power generation using unabated coal. However, the EPS alone will not incentivise other technologies such as CCGT gas-fired power generation with CCS.

Q3: Within the broad areas of renewables, energy efficiency and energy grids, are there particular areas where you feel the Bank could have higher impact?

We think the four key themes of the EIB Energy Lending Policy are correct and welcomed. The themes clearly prioritise action on climate change and target multiple sectors and technologies. It is not clear how the areas of renewables, energy efficiency and energy grids in this question relate to the four key themes, these areas questioned are too narrow to deliver on the Paris Climate goals alone.

Bio-energy power with carbon capture and storage (BECCS) is defined as a renewable technology which has been overlooked in the EIB document. This technology has the potential to not only

³ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018DC0773>

⁴ <http://hydrogencouncil.com/wp-content/uploads/2017/06/Hydrogen-Council-Vision-Document.pdf>

⁵ <https://www.northerngasnetworks.co.uk/h21-noe/H21-NoE-26Nov18-v1.0.pdf>

produce reliable electricity but also drive negative emissions in Europe⁶. The bank should consider technologies which have a negative emissions footprint as an essential component of the decarbonisation challenge.

Q4: How can EIB reinforce its impact towards ensuring affordability, addressing social and regional disparities and support a just energy transformation?

The EIB should focus more on CCS and CCU technologies as a vital part of the solution to delivering the most affordable and socially just pathway to decarbonising Europe. As shown by the IPCC⁷ and IEA⁸ CCS technology deployment will deliver the lowest cost of living whilst achieving climate goals. CCU and CCS technologies will be essential for energy intensive heavy industry regions to remain globally competitive whilst decarbonising.

Theme 2: Decarbonising Power and Heat (Annex II)

Q8: Declining costs and competitive auctions are transforming a number of renewable markets (e.g. onshore wind, utility-scale PV). How can the Bank best support these relatively mature technologies? In the context of increasing market integration, is there a need for financial instruments to help attract long-term private finance?

Encouragingly the bank express a desire to align with the NECPs from member states, with half of member states mentioning CCS, CCU, or hydrogen production with CCS in their NECPs this should be reflected by the EIBs future planning. We encourage the EIB to dedicate resources to have an explicit focus and work programmes dedicated to CCS, CCU and hydrogen deployment. The EIB should remain cognitive that member states NECP's outline activities proposed for 2030s will help deliver the ambition of climate neutrality in 2050.

The decarbonisation of heat systems is seen as a challenge for Europe which the bank expressed a desire to support. However, hydrogen heating is only mentioned briefly as a solution to the heat decarbonisation challenge. Hydrogen heat networks with hydrogen production from natural gas and CCS has the potential to provide large scale affordable heat decarbonisation on a national scale⁹. Hydrogen has an important role for domestic and industrial heat demands which electrification alone is not likely to affordably achieve.

⁶ <http://www.etipbioenergy.eu/images/EBTP-ZEP-Report-Bio-CCS-The-Way-Forward.pdf>

⁷ https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf

⁸ Energy Technology Perspectives, 2017. International Energy Agency (IEA)

⁹ <https://www.northerngasnetworks.co.uk/h21-noe/H21-NoE-26Nov18-v1.0.pdf>

Q9: Does the EPS for power generation remain an appropriate safeguard? Do you agree that adjustment should be made to support flexibility and adequacy? In light of recent developments in renewables, the Paris Agreement and the Sustainable Development Goals, would an exemption to the EPS for power plants in least developed countries continue to be justified?

The EPS is an effective safeguard against high emitting sources such as unabated coal. However this does not support low carbon desirable alternatives such as fossil fuel based power generation with CCS.

The EIB should financially support nations to build carbon capture facilities on their new fossil fuel power plants. Globally, many countries have recently built and will build in the coming decade's fossil fuel, especially coal-fired power plants. The EIB need a credible strategy on how CO₂ emission from these plants can be abated.

Theme 3: New energy technologies and business models (Annex III)

Q11: The Bank has developed a number of products – both financial and advisory - targeted to supporting innovative energy projects. Do you have a view on these instruments? Can the Bank improve or better target the financing needs of the energy demonstration sector?

So far from a CCS and CCU perspective it has not been clear that the financing services have been supportive. For example ECOFIN only provided loans to CCS project; these have only been view of very limited value to CCS project developers.

Q12: Some renewable technologies or applications remain relatively expensive. Should the Bank continue to finance such projects, even in the absence of an innovative component?

The EIB should be aware that immature technologies which are currently expensive, but necessary for the energy transition, need support to bring them down the cost curve. As shown by other technologies such as offshore wind, once a technology begins to mature, costs will reduce significantly.

The European Court of Auditors report¹⁰ into the NER300 and EEPR funding mechanisms, highlighted importance of financial stability given by reliable long term commitments to invest in a CCS project¹¹. This reliable financing is essential when Member States and industry are moving towards a FID and construction. The EIB have a central role in facilitating CCS and CCU deployment in its early stages.

¹⁰ https://www.eca.europa.eu/Lists/ECADocuments/SR18_24/SR_CCS_EN.pdf

¹¹ Lessons and evidence derived from UK CCS Programmes, 2008-2015, CCSA, 2015. Accessible from: <http://www.ccsassociation.org/press-centre/reports-and-publications/lessons-learned/>
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Theme 4: Securing the infrastructure needed during the transition. (Annex IV)

Q14: What is your view on the investment needed in gas infrastructure to meet Europe's long-term climate and energy policy goals, while completing the internal energy market and ensuring security of supply? What approach could strike the right balance to prevent the economic risk of stranded assets?

Europe's gas network still has key a role to play in the decarbonisation of Europe. Not only will gas still be required as an important feedstock for hydrogen production using steam methane reformers, biogas volumes will increase in the gas network. In the longer term, as a result of a growing hydrogen economy, repurposing current gas infrastructure to transport and store hydrogen could lower the economic risk of stranded assets.

In line with the Connecting European Facility (CEF) funding instrument from the European Commission, the EIB needs to recognise the requirement for investment in CO₂ infrastructure and storage sites.

Q15: Should the Bank refrain from supporting hydrocarbon production, in addition to exploration? If so, should gas be treated the same as oil? Within and outside the EU?

Hydrocarbon production will still have a role to play in a climate-neutral scenario. The establishment of a blue hydrogen economy will rely on gas production from steam methane reformers and CCS to provide low-carbon hydrogen. Gas also has a role to play to provide reliable low-carbon electricity production from CCGT, with CCS.

As modelled by the IPCC¹² and IEA¹³ the most achievable climate change scenarios see hydrocarbons production and combustion with CCS. The EIB should give consideration in the role it can play in addressing fugitive emissions associated from hydrocarbon production, transport, and storage.

¹² https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf

¹³ Energy Technology Perspectives, 2017. International Energy Agency (IEA)
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