EUROPEAN INVESTMENT BANK

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Agenda
Item N°

FOR DISCUSSION

B O A R D O F D I R E C T O R S

EIB ENERGY LENDING POLICY: SUPPORTING THE ENERGY TRANSFORMATION

CONFIDENTIAL

Introduction and Proposal

1. The Bank's current energy sector lending policy is set out in the 2013 Energy Lending Criteria [466/13], as approved by the Board in 2013. In January 2019, the Bank launched a public consultation to review its lending policy to the energy sector. In the line with the announced timetable, a new proposed energy lending policy and consultation report are now presented in the two documents attached.

2. The Board of Directors is therefore requested:

    a. To discuss the new Energy Lending Policy (ELP) as attached in Annex 1.

    b. To take note of the Consultation Report as attached in Annex 2.

3. In doing so, the Board is asked to note that:

    a. The new ELP is consistent with EIB being the EU climate bank.

    b. The exact content of the proposals announced in the ELP will depend on the outcome of ongoing discussion around the next multi-annual financial framework (MFF), including key instruments such as InvestEU and NDICI. An Implementation Plan will be developed during the first quarter of 2020.

    c. In addition to replacing the 2013 Energy Lending Criteria, in the case of renewables and energy efficiency, the ELP replaces policy set out in CA/413/08 with respect to exceptions to standard financing rules.

4. In line with the Bank's Transparency Policy, these draft documents will be published on the EIB website on 26 July 2019.

ANNEX 1

European Investment Bank

DRAFT

EIB ENERGY LENDING POLICY

EIB ENERGY LENDING POLICY

Supporting the energy transformation

Draft

24 July 2019

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Executive Summary

1. To meet the objectives of the Paris Agreement, energy systems across the world must transform rapidly. This profound challenge requires significant, sustained investment in the energy sector over the coming decades. The European Investment Bank is the EU bank and one of the world's largest multilateral financiers of climate action. It can help to foster this investment.

2. The EU continues to lead the world in tackling climate change. In 2019 it adopted a comprehensive legal framework to deliver ambitious climate and energy targets for 2030, including further reducing greenhouse gas emissions, increasing energy efficiency and promoting the use of energy from renewable sources. This framework builds upon all dimensions of the Energy Union, including energy security, a fully integrated internal energy market and research and innovation. In line with the temperature objectives of the Paris Agreement, the EU is pursuing the long-term aim of a climate-neutral economy.

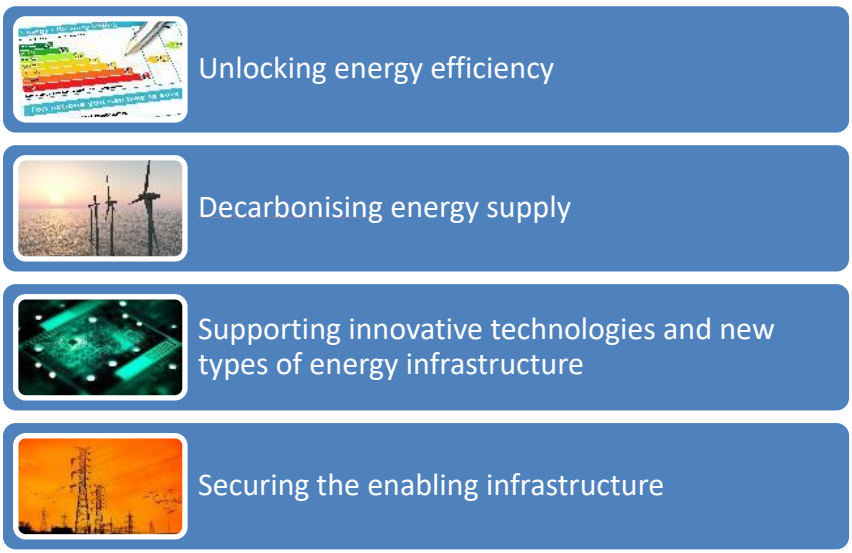
3. Delivering on these EU targets requires long-term investment, the majority of which will come from the private sector. The Bank's energy lending policy (ELP) sets out how the Bank, as a public bank, can help support the EU in meeting this challenge. It focuses the Bank's activities on those areas in which it can provide a high degree of additional value by: (i) overcoming persistent investment gaps, which remain despite existing policies; (ii) focusing on infrastructure needed over the long term, including the important dimension of innovation and scaling up of low-carbon technologies; (iii) supporting new market-based investment in the energy sector, in particular for relatively new types of infrastructure (auctions, demand response, storage).

4. In practice, the value the Bank can bring depends significantly on the context within which it operates. The Bank therefore intends to **strengthen its dialogue with Member States** to explore how its lending and advisory services can be most effective in supporting national energy and climate plans. Similarly, outside the Union, in light of the **nationally determined contributions**, the Bank's activities will focus on achieving the Sustainable Development Goals and the objectives of the Paris Agreement.

5. The Bank's activities focus on four separate themes (see Figure 1). **Energy efficiency** investment, notably in residential buildings, needs to double in the coming decade. Despite numerous policy measures, a persistent investment gap remains. The Bank has been very active in this field for a number of years. In cooperation with the European Commission, it will establish a new **European Initiative for Building Renovation (EIB-R)** to support new ways to attract finance for building rehabilitation. This will examine the development of relatively new sources of energy efficiency finance, such as models of mortgage-based lending. Given the pressing need to accelerate market uptake for energy efficiency, and as an exception to its general rule, the Bank will consider financing up to 75% of eligible capital expenditures under this initiative.

6. **Decarbonising energy supply** to meet the 2030 targets requires at least a doubling of today's EU renewable power generation capacity. In close cooperation with the European Commission and other partners, the Bank will endeavour to **support the market integration of renewable electricity projects,** as well as increased regional cooperation. In addition, there is a need to support other types of renewables (renewable heating), the production and integration of low-carbon gases (such as hydrogen) and low-carbon fuels. The Bank will reinforce its technical and financial advisory services to project developers and public authorities seeking to scale up investment programmes. Finally, it will look to support the development of a sustainable internal supply of critical raw materials needed for the transformation.

Figure 1: The themes of the ELP



7. Investment in **innovative low-carbon technology** needs to increase. This will reduce the cost of meeting long-term targets, as well as increasing the global competitiveness of European industry. Building on its experience, the Bank will continue to support innovation from the earliest stage in the research laboratory to the demonstration of pre-commercial technologies, in close alignment with the EU Strategic Energy Technology Plan and the new Innovation Fund being established under the Emissions Trading Directive. The Bank will also support initial commercial production lines related to breakthrough technologies.

8. New investment opportunities in power markets are emerging, often associated with new business models that respond to improvements in market design. Battery storage and demand response are beginning to be deployed, together with small-scale decentralised energy sources. New participants are entering the market, consumers are becoming more active and communities are set to play an increasing role. The Bank will seek to support these **new types of energy infrastructure** to stimulate their market uptake.

9. The Bank will continue to support the development of electricity networks, including the interconnection target agreed for 2030 and European projects of common interest. It will look to prioritise investments that increase network flexibility.

10. Focusing on this long-term investment represents an ambitious challenge for the Bank. As a result, **the Bank will phase out support to energy projects reliant on fossil fuels**: oil and gas production, infrastructure primarily dedicated to natural gas, power generation or heat based on fossil fuels. These types of projects will not be presented for approval to the EIB Board beyond the end of 2020. While it fully understands the role fossil fuels will continue to play within EU energy systems for at least the coming decade**, the Bank provides higher additionality by focusing on the longer-term challenge** and investment needs of the energy sector. As a result, **all the Bank's activities in the energy sector will be fully aligned with the Paris Agreement**.

11. This long-term transition is profound. Solidarity is required to ensure that potentially vulnerable groups or regions are supported. The Bank will therefore establish an **Energy Transition Package** to provide extra support to those Member States or regions with a more challenging transition

path. At the level of national energy systems, the package focuses existing Bank assistance, including advisory services, on energy projects that support the transition in those Member States that benefit under the EU Modernisation Fund. As an exception to its general rule, the Bank will consider financing up to 75% of the eligible project cost. More broadly, at the regional level, building on its existing experience and in close cooperation with wider European initiatives in this area, the Bank will reinforce its support for economic development and job creation in regions transitioning away from fossil fuels, including through activities that go beyond energy lending.

12. This energy lending policy represents a significant change in the Bank's approach to the energy sector and an important input into the Bank's overall climate strategy. It is also important to stress that it applies alongside other Bank policies and operational documents, including notably the overall EIB Operational Plan, credit risk principles, or other sector lending policies. It should be stressed that the capacity of the Bank to support some of the priorities outlined in this policy will depend to a significant degree on access to risk capital or grant support, in particular through InvestEU or the Neighbourhood, Development and International Cooperation Instrument outside the EU. Moreover, Bank-wide principles and standards defined in the Guide to Procurement, Environmental and Social Standards or Gender Strategy have important implications for all Bank activities, including in the energy sector.

1. Introduction

1. The European Investment Bank (EIB or the Bank) has been investing in the energy sector since its establishment under the Treaty of Rome in 1957. During the intervening 60-year period, the Bank has made a significant contribution to the financing of the energy infrastructure which underpins today's European internal energy market, helping to deliver sustainable, secure and affordable energy to EU citizens and businesses.

2. Over time, the Bank has steadily increased its activity in the energy sector outside the EU, working under various mandates to support energy projects which further European policy objectives, notably in regions neighbouring the Union and across the developing world.

3. Over the last five years, the Bank's energy lending represented on average approximately EUR 12 to 14 billion of investment in the energy sector per year. This has largely supported energy efficiency, renewable energy and energy grids. In recent years, a wide range of advisory services has increasingly complemented the Bank's lending activity.

4. Energy lending also forms a core component of the Bank's climate finance. The Bank is one of the world's largest multilateral providers of finance for climate action projects, for example financing to the tune of over EUR 16 billion in 2018. In 2015, the Bank adopted a climate strategy that sets out its ambition to play a leading role in mobilising the finance needed to achieve the temperature objectives contained in the Paris Agreement.

5. The Bank's previous energy lending policy was adopted in 2013, at the height of the financial and economic crisis. It had a natural focus on helping to maintain the investment needed to meet European energy policy goals, including the 2020 targets. As confirmed by a recent ex-post evaluation, the 2013 policy was ''a major step forward for the Bank,'' not least in focusing the Bank's operations on the largest investment needs in the energy sector.

6. This update of the Bank's energy lending policy reflects several important recent changes. Firstly, the EU has adopted a comprehensive legal framework to deliver ambitious 2030 targets. Secondly, the Paris Agreement provides greater clarity on the nature of the investment needed for the long-term energy transformation. Many energy projects that the Bank supports today will potentially be operating beyond 2030 and hence need to be aligned with the Paris Agreement. Thirdly, access to finance has significantly improved for parts of the energy market, compared to the time of the previous policy. This policy provides an opportunity for the EIB, as the EU bank, to set out how it can best stimulate the overall investment required.

7. The operating environment of the Bank itself has evolved considerably, in particular through a strategic partnership with the European Commission in the Investment Plan for Europe. This is currently evolving still further in the context of the next European multiannual financial framework 2021-2027 and in particular InvestEU.

8. The document is structured as follows. Chapter 2 outlines the context of the energy transformation and the expected implications for capital investment, both within and outside the Union. The subsequent two chapters focus on how the Bank will support these investments. Chapter 3 sets out the general approach of the energy lending policy. Chapter 4 provides more detail along the four themes of the policy: unlocking energy efficiency, decarbonising energy supply, supporting innovative technologies and new types of energy infrastructure and securing the enabling infrastructure.

9. Five annexes are included in the policy. The first four present systematically the project eligibility and technical and economic assessment criteria applied by the Bank, including the key criteria it uses to record a project as providing a relatively high contribution to the policy. A final annex concerns the cost of carbon used by the Bank. The annexes are available on a dedicated energy lending policy webpage and contain more technical information, which may be of particular interest to potential customers.

10. This policy has benefitted from an extensive set of written contributions from stakeholders, as well as a public consultation meeting held in Brussels on 25 February 2019. The Bank's response to the public consultation responses can be found on the EIB website (here). The Bank would like to thank all those stakeholders who took the time to respond to this exercise.

11. The energy lending policy is consistent with the Bank's overarching climate strategy and sits alongside the other sector policies of the Bank. For instance, the policy does not cover clean mobility, or industrial processes. The exact scope of the energy sector policy – which can be complex in practice for an integrated energy system – are set out in the technical annexes.

12. The energy lending policy also works within the given wider operating environment and risk capacity set out in the EIB Operational Plans, based on EIB credit risk principles and approval procedures. Equally, compliance with the Bank's Guide to Procurement and Environmental and Social Standards are required for the Bank's support to energy projects through investment loans or framework loans. These latter documents provide standalone guidelines and rules covering all relevant Bank operations, including energy.

13. The energy lending policy covers all EIB activity in the energy sector – namely financial support, advisory services and technical assistance, regardless of the channel of support. In other words, this policy applies not only to direct investment loans but also to all intermediated operations of the Bank, including those carried out through commercial banks and investment funds.

Reporting and follow-up

14. As agreed as part of the action plan resulting from the ex-post evaluation of the 2013 Energy Lending Criteria, a dedicated webpage for this policy provides (i) links to the policy, including annexes, and (ii) relevant public presentations given by the Bank on its energy activities.

15. As part of its annual reporting commitments, the Bank will provide a breakdown of energy activity by the core themes of this policy. This will include an indicator on the percentage of operations recorded as providing a high contribution to the energy lending policy as set out in the annexes. In addition, the annual report will include an update on the main initiatives announced under this policy. Finally, the annual report will be used as an opportunity to provide an update on any technical changes to the policy. Revised versions of the policy annexes will duly be uploaded onto the dedicated energy lending policy webpages.

2. Investing to transform energy systems

The world is not on track to meet the targets of the Paris Agreement

1. At the 21st session of the Conference of Parties to the United Nations Framework Convention on Climate Change in Paris in December 2015, nearly 200 countries agreed to hold ''the increase in the global average temperature to well below 2˚C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5˚C."

2. A recent report[1] issued by the Intergovernmental Panel on Climate Change concludes that in order to limit the temperature increase to 1.5˚C, global anthropogenic greenhouse gas emissions need to reach net zero by 2050. The equivalent target in the case of limiting the increase to 2˚C is to reach net-zero emissions around 2070.

3. Even taking into account all the contributions to the Paris Agreement, the world is currently not on track to reach either of these targets. For instance, despite the recent increase in investment in renewable energy, the EU is still largely dependent on fossil fuels for transport, industry and heating and, in many EU Member States, for power generation. This highlights the considerable challenge the EU faces in meeting the long-term targets of the Paris Agreement. At the same time, energy systems will need to ensure energy security and affordability – for both citizens and businesses operating in a competitive global market.

4. Outside the EU, energy demand continues to grow globally and most countries still rely on fossil fuels. Access to energy for the 600 million people without modern sources of cooking, heat or electricity is an important priority. The current lack of energy access, mainly in Africa, has a disproportionate negative impact on women and girls. The UN 2030 Agenda for Sustainable Development, adopted by UN member states in 2015, includes 17 Sustainable Development Goals, including one specifically designed to ensure universal access to reliable and modern energy by 2030, to increase substantially the share of renewable energy, and to double the global rate of energy efficiency.

The energy transformation

5. Energy systems need a substantial transformation to meet long-term climate targets. There is broad consensus on the following core elements of the transformation.
   - Significant investment in **energy efficiency** is required to reduce the energy needed to meet rising demand for energy services (heating/cooling, lighting, power, transport);
   - Based on recent dramatic cost reductions, the share of **renewable** energy technologies will increase substantially. Wind and solar power, in particular, are projected to represent the majority of low-carbon energy sources by 2050. These technologies are variable in nature – i.e. they fluctuate depending on whether the sun shines or the wind blows. As a result, there is a need to increase the **flexibility** of energy systems, including different forms of storage, dedicated flexible units and demand response;
   - **Decentralised** energy will account for an increasing share of the new investment in power generation: i.e. power will increasingly be injected into the low- and medium-voltage distribution network, rather than being injected from centralised sources into the high-voltage transmission system;

[1] Intergovernmental Panel on Climate Change, 2018, Special Report on Global Warming of 1.5˚C.

- As in the economy at large, energy systems will become increasingly **digitalised**, helping to integrate decentralised resources into the energy system, and increasing consumer participation in energy markets more directly;
- The heat, industry and transport sectors are expected to become increasingly **electrified**, as a way to reduce greenhouse gas emissions, driving up electricity demand and increasing sector integration;
- Achieving net-zero emissions will require a diverse **portfolio of technologies** including renewables, but also nuclear, carbon capture and storage, power-to-X (converting surplus renewable power into a different energy carrier)[2], as well as bioenergy, storage and digital technologies. Increased innovation and deployment is needed across the portfolio**.**

6. Whilst these core elements are increasingly clear, modelling exercises highlight that there are many different pathways compatible with the overall transformation. The future energy and technology mix will depend in particular on the evolution of the relative costs of different technologies, behavioural responses of people and businesses towards opportunities to save energy, or the willingness of people to adjust current lifestyles. As a result, there is a pervasive uncertainty surrounding each pathway.

7. Despite this consensus on the necessary direction of travel, the scale of investment and progress across individual technologies differs widely. As monitored by the International Energy Agency report on Tracking Clean Energy Progress, the scale of investments in energy efficiency, clean mobility, decarbonisation of heating, carbon capture and storage and nuclear are considered to be not on track to reach the Paris Agreement.

8. Progress along the energy transformation pathway will inevitably entail complex challenges around social acceptability, both at local and national level. More broadly, different pathways may have distinct impacts on affordability, regional employment, productivity and international competitiveness.

9. Energy security must be maintained during the energy transformation. Modern, digitalised economies rely on an uninterrupted energy supply. Higher shares of renewable energy reduce dependence on imported fossil fuels, but integrating a high share of renewables, particularly variable renewables, may raise new issues for the adequacy of power systems. These uncertainties can be compounded by phase-out policies for coal power plants and nuclear lifetime extensions in some countries. In addition, the energy system itself has to become more cyber-secure and climate-resilient.

10. Government policy will play a central role in providing a robust regulatory framework to help overcome some of this uncertainty around the energy transformation and, thus, facilitate the investment needed. As presented briefly in the next section, the EU is playing a leading role in this field.

EU energy and climate policy

11. The EU, which emits around 10% of global greenhouse gases, is a leader in the energy transition. Over a decade ago, the EU agreed on the so-called 20-20-20 package of energy and climate targets for 2020, aiming to reduce greenhouse gas emissions by 20% on 1990 levels, to increase the share

[2] This term refers to the idea of converting surplus renewable power into a different energy carrier (''X''). Options include power to ammonia, power to hydrogen, power to syngas, power to liquids, etc.

of renewable energy in the EU energy mix to 20%, and to increase energy efficiency by 20%. The EU is largely on track[3] to deliver these targets, in a period in which the EU economy has grown by 58%.

12. Building on this success, the EU has adopted targets that are more ambitious for 2030: to reduce greenhouse gases (compared to 1990 levels) by 40%, to reach at least a 32% share of renewable energy consumption and to achieve energy savings of at least 32.5%. These commitments for 2030 have been submitted as the EU contribution under the Paris Agreement.

13. In late 2018, the EC adopted the Clean Planet for all communication[4], presenting a long-term strategic vision for a climate-neutral economy, with a target to reach net-zero emissions within the EU by 2050. This vision is supported by detailed long-term modelling results, which illustrate a range of impacts under different scenarios.

14. At the same time, the EU has agreed a comprehensive legislative framework to ensure that it delivers on the 2030 targets. This required the amendment of the EU Emission Trading System Directive[5], plus agreement on the eight legislative proposals made by the EC in the Clean Energy for All Europeans package.

15. Whilst adopting Union-wide targets, the package leaves flexibility for Member States as to how to achieve them. As part of the Energy Union's governance, therefore, Member States are submitting integrated National Energy and Climate Plans for the period 2021-2030. These plans cover all five dimensions of the Energy Union: (i) security and solidarity, (ii) the integrated internal energy market, (iii) energy efficiency, (iv) decarbonisation, and (v) research, innovation and competitiveness.

16. In addition, a wide range of European and national policies have a strong influence on the energy sector. With the electrification and development of digitalisation, smart cities and the circular economy, sectors are increasingly integrated. Policies to promote alternative fuels for clean mobility have important implications for investments in the energy sector as well.

17. Consistent with the objectives of the Internal Energy Market, the EU aims to promote market-driven investments. This is increasingly visible in some recent renewable energy investments, which benefit from very limited government support and are driven by electricity market prices. The Clean Energy for All Europeans package further improves the design of the electricity market, with the aim of providing more efficient price signals.

18. In addition to relying on the market, the EU also provides direct financial support to incentivise energy investment, currently foreseen in the next Multi-annual Financial Framework through the InvestEU Facility, Structural Funds within the Union, and the Neighbourhood, Development and

[3] This paragraph, including the statistics, is drawn from the EC Fourth Report on the State of the Energy Union. Preliminary data suggests that GHG emissions in 2017 were 22% below 1990 levels. Moreover, in 2017, the share of renewable energy in the EU energy mix was 17.5%, although the pace of increase has slowed since 2014. Further effort is required to increase energy efficiency, with recent data suggesting that primary energy consumption was 1 561 million tonnes of oil equivalent in 2017 – still significantly above the target of 1 483 million tonnes for 2020.

[4] Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank. A Clean Planet for all: A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy, COM/2018/773 final.

[5] Directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investments, as amended by Directive (EU) 2018/410.

International Cooperation Instrument outside the Union. The EIB, as the EU bank, is an important additional source of finance. Before turning to the role of the EIB, it is useful to present briefly the likely investment needed to deliver the 2030 package and the Paris Agreement more generally.

Investment required within the EU

19. Decarbonisation involves the deployment of technologies with high upfront investment costs. According to the modelling used to underpin the EC long-term vision for 2050, energy investments in the EU need to almost double during the decade 2021-30, i.e. from EUR 229 billion per year on average over the period 2011-20 to EUR 396 billion per year from 2021 to 2030. This increases to EUR 520-575 billion per year in the subsequent decades, more than 2.5 times the current level.

20. Energy efficiency investments in buildings and industry represent approximately three-quarters of the total energy investment required in the period 2021-30, equal to EUR 281 billion per year. Power generation investments remain stable at EUR 55 billion per year, with the required increase in renewable capacity largely offset by the expected future reduction in unit costs. Investment in power grids increases by 70% in the decade 2021-30 to reach EUR 59 billion per year.

21. This modelling exercise projects that the use of all fossil fuels will decrease dramatically in Europe. Coal, in the absence of carbon capture and storage, is the most carbon-intensive fuel and its use dwindles to close to zero by 2050. Oil consumption decreases gradually in the transport and agricultural sectors, but almost disappears from the building sector. The share of oil declines from 30% today to 8-12% of primary energy consumption by 2050, contributing to reduced energy imports and reduced air pollution.

22. Similarly, investments in new gas infrastructure decline sharply in all scenarios. While natural gas continues to be used in the EU, its consumption is expected to decline by 20% from today's level by 2030 and by 70 to 85% by 2050. According to the International Energy Agency's Sustainable Development Scenario, consistent with the goals of the Paris Agreement, investments in gas transmission and distribution networks represent around 2% of total EU investment needs over the two decades to 2040. These investments are needed primarily to maintain the gas network, with higher levels required in eastern Member States to alleviate existing bottlenecks.

23. The relative burden of investment to reach 2030 goals may differ across the EU, with a potentially higher burden on lower-income Member States. According to analysis by the EC[6], the increase in annual average investment to meet the 2030 targets is 38 percentage points above the reference case for those Member States with a per capita income below 60% of the EU average. By contrast, for the remaining 18 Member States, the increase is only 19 percentage points. Various measures, notably the EU Modernisation Fund[7], are helping to redress this imbalance.

Investment required outside the EU

24. Demand for energy is increasing rapidly in many regions of the world, in particular Asia, the Middle East, Africa and Latin America. According to the International Energy Agency, total energy

[6] EC Staff Working Document, Impact Assessment accompanying the Communication on a policy framework for climate and energy in the period from 2020 up to 2030, SWD(2014) 15 Final, of 22.1.2014.
[7] The Modernisation Fund is established under Article 10(d) of Directive (EU) 2018/410 amending Directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investments, and Decision (EU) 2015/1814.

investment is projected to be around EUR 2.5 trillion per year by 2030, seven times the level of investment within the EU. Developing countries are investing in new energy infrastructure and it is important that the majority of this investment be compatible with the Paris Agreement.

25. Nationally Determined Contributions, which are at the heart of the Paris Agreement, will consist of plans that describe the efforts that each country intends to make to reduce national emissions and to adapt to the impacts of climate change. While many countries will continue to rely on fossil fuels to meet growing demand, many will take advantage of the rapid cost decline of renewables and make progress in integrating renewables into energy systems, as well as improving energy efficiency. Given the scale of energy investment needed outside the EU, there is a need to focus EU action on investments that can have a significant impact on decarbonising existing systems.

26. At the same time, it is important to recognise the different needs of countries outside the EU. Access to energy remains a fundamental issue. According to the International Energy Agency, achieving universal energy access, as targeted by UN Sustainable Development Goal 7, would require investment of some EUR 48 billion per year between 2018 and 2030, representing about 2% of total annual energy sector investment. In addition, air pollution is a major health and environmental issue and a core driver in transforming energy systems in certain countries.

27. The EU Neighbourhood, Development and International Cooperation Instrument for the period 2021-27 introduces financial mechanisms to leverage the EU budget and crowd in private investments. External action in the energy sector is embedded in other EU international objectives and energy and climate change diplomacy. In the energy sector, the focus of the EU is on access to basic energy services, addressing climate change mitigation and adaptation, increasing energy efficiency and deploying renewable energy.

3. Approach of the energy lending policy

1. The primary objective of the energy lending policy is to ensure that the EIB, as the EU bank, makes the most effective use of its limited resources to support the new EU energy policy framework. This chapter focuses on this objective, in the context of the required investment to meet the 2030 targets and beyond, as outlined in Chapter 2.

2. The chapter begins by emphasising the Bank's focus on supporting ambitious EU targets for 2030 and beyond. It then presents, in general terms, how the Bank can provide a higher degree of additionality in helping support EU policy, including outside the Union. Finally, it sets out the implications with respect to fossil fuel projects – namely that the Bank will phase out support to such energy projects by the end of 2020.

Supporting ambitious EU energy and climate targets

3. Meeting the 2030 targets will require sustained increased investment within the EU over the next decade. There is a need to boost energy efficiency, generate an increasing share of power and heat from low-carbon sources, reinforce and expand electricity networks and innovate towards new low-carbon technologies, including low-carbon gases such as hydrogen.

4. The Bank will support the EU in delivering these targets. The Bank has a limited ability to support the energy sector – typically around EUR 10-12 billion per year in recent years. It will therefore focus on deploying its support most effectively to foster the overall EUR 400 billion investment needed and on catalysing the private sector.

5. The investment challenge to meet the 32.5% energy efficiency target by 2030 is considerable. Despite significant policy attention over recent years, for various reasons many investment opportunities to save energy are not taken. The Bank believes it can help address this persistent investment gap.

6. On the supply side, meeting the target of a share of at least 32% for renewable energy by 2030 is likely to require at least doubling Europe's current capacity in renewable power generation. Much of this will be met from variable sources (wind and solar) that are increasingly being integrated into electricity markets. Meeting the target will also require further investment in heating from renewable sources and low-carbon gases. The Bank will focus on helping Europe deliver the renewable energy target.

7. As noted in the Paris Agreement, significant innovation and deployment will be required to enable an effective long-term response to climate change. The EU Strategic Energy Technology Plan provides a roadmap to improve technology performance, complemented by detailed implementation plans to help deliver the improvements through particular projects. The Bank will continue to support projects developed under these plans, as well as the wider deployment of mature technologies. This includes the development of alternative energy carriers, such as hydrogen.

8. In addition to innovation, there is a need to invest in new types of energy infrastructure, such as different types of storage, demand response and new digital technologies. This can help to integrate high shares of renewables across different sectors of the economy. The new EU electricity directive opens up new opportunities for investment. The Bank will seek to support these new types of investment.

9. Finally, reinforcing electricity grid infrastructure is important to enable increased electrification and integration of renewables and new types of energy infrastructure in energy systems. Investment in national electricity networks is likely to increase in the next decade, both at transmission and distribution level. The EU has an interconnection target of 15% of installed capacity for 2030, following the 10% target for 2020. The Bank will continue to support the development of the electricity network.

Providing additionality

10. The EIB can in principle support a variety of energy investment projects, ranging from energy efficiency investments, power plants and energy grids to new business models and innovation. This section focuses on how, at the general level of the energy sector as a whole, the Bank can provide a significant degree of additional value, in the context of existing energy policies implemented by the EU and Member States and considering the need to mobilise private sector finance for the large majority of the overall investment needed.

11. As a public bank, the EIB is invited to consider areas of investment in which markets may fail to invest (either at all, quickly enough or to the same extent) in infrastructure needed to meet the requirements of society as a whole. Box 1 summarises the main types of market failures associated with the energy sector. In the light of the Clean Energy for All package, as well as the scale and type of investment needed to meet the ambitious EU goals, there are three areas where the Bank can potentially provide particularly significant additional value.

12. Firstly, the Bank can contribute to the closing of persistent investment gaps. There are areas in which, despite policy support and the availability of finance, there is substantial evidence that investment remains too low. This is relevant for energy efficiency, in particular the renovation rates of buildings, or investment in low-carbon innovation. Overcoming these investment barriers will be essential to meeting 2030 targets.

13. Secondly, as a long-term investor, the Bank supports investment decisions taken to meet long-term goals. Energy infrastructure is largely a very long-term business. The Bank can help focus its support on infrastructure that will be used for decades to come, when energy systems will need to be low-carbon. This is particularly relevant for energy grids, infrastructure enabling sector integration and innovation more broadly.

14. Finally, the Bank can support new market-based investment in the energy sector. This includes projects deriving their revenues (in part or in full) from energy markets or tendered using market mechanisms such as auctions. Increasing shares of solar and wind production mean that electricity markets will be characterised by frequent switching between periods of relative production surplus and periods with relative shortage. Market prices can help send important signals about the need for investment in different types of system flexibility, such as storage, interconnection, demand response, further variable renewables, etc. This is a relatively new development within the EU, but also with a limited track record upon which to raise finance. The Bank can help to support projects structured appropriately for this new regulatory framework.

15. This general approach has been used in Chapter 4 to identify more detailed areas in which the Bank can bring higher additional value. Furthermore, the annex contains clear guidance on the types of energy projects that the Bank will record as providing a high contribution to the energy lending policy.

Box 1: Additionality and market failures in the energy sector

In economic theory, private markets lead to efficient decisions – including investment decisions – under a demanding set of conditions. In reality, these conditions are only met to varying degrees. Investment decisions are likely in practice to be hampered for a number of reasons. In the energy sector, these include:

- The presence of environmental externalities – notably carbon emissions and local air pollutants – that are only partially internalised;
- Externalities that are not captured in the return on investment, notably for companies investing in low-carbon innovation and industrialisation, and for energy efficiency investments;
- Some public goods characteristics of energy security that cannot be captured by investors;
- The incomplete nature of markets, particularly due to the lack of liquid futures markets to hedge investments, compounded by the time required to change the design of markets;
- The imperfect nature of competition, in activities which have been only relatively recently opened to competition, but also in the case of electricity grids, which are natural monopolies;
- The presence of informational barriers, particularly for smaller actors, and coordination failures between Member States.

EU and national energy policies are largely directed at addressing these shortcomings and thus ensuring that European energy markets function well. Nevertheless, despite this policy and regulatory framework, investment levels in practice tend to remain too low, particularly for the types of energy assets required for the energy transformation. The Bank cannot necessarily solve this problem alone. However, by supporting particular types of projects, it can complement and reinforce climate and energy policy.

Working with Member States to build on the national and energy climate plans

16. To put this general approach towards providing high additional value into practice, it is necessary to apply this within the specific circumstances of a project, i.e. a specific business model or counterparty operating within a specific regulatory and market environment. The new national energy and climate plans provide a new opportunity to assess the strategic role of the Bank within a national context.

17. The Bank will therefore seek to **strengthen its dialogue with Member State governments** and relevant actors in the energy sector on the basis of the final national energy and climate plans. The national plans are required to present, where applicable, financing measures both at the national and European level. As one significant additional source of EU-level financial support, the Bank will therefore offer to organise dedicated **Energy Finance Workshops** with interested Member States to identify how its lending and advisory services can be most effectively directed towards supporting these plans.

Phasing out lending to fossil-fuel energy projects

18. The Bank will focus on meeting the long-term investment challenge associated with the EU 2030 targets. A consequence of the focus on these priorities is that the Bank will **phase out the financing of investment in energy infrastructure directly associated with fossil fuels**.

19. Once in effect, this means that the Bank will have a clear position not to support upstream oil or gas production, coal mining, infrastructure dedicated to coal, oil and natural gas (networks,

liquefied natural gas terminals, storage), and power generation or heat production[8] from fossil-fuel sources (coal, gas, oil, peat).

20. The Bank's decision to phase out lending to fossil fuels is a significant change in its policy. To manage this change smoothly, the Bank will no longer originate projects after the adoption of this policy and will stop[9] lending to fossil-fuel energy projects by the **end of 2020**.

21. The Bank acknowledges that fossil fuels will continue to play a role within the global energy system up to 2030 and that switching from oil or coal to natural gas may reduce greenhouse gas emissions in the short term. Such investments are very likely to take place even without EIB financing, in any case. Phasing out support for fossil fuel projects reflects a decision by the Bank to focus its limited resources on investments needed to meet the EU 2030 targets and 2050 objectives, which present high investment needs, a longer-term perspective and a greater investment challenge.

22. The Bank will continue to support security of supply, albeit no longer through fossil fuels. This support will be channelled directly by reinforcing electricity networks, as well as indirectly by reducing energy demand through energy efficiency projects, or through low-carbon power generation. The Bank wishes to focus on newer dimensions of security, such as through demand response or storage, which need to be deployed at scale.

Providing new support for the transition

23. Meeting long-term energy and climate targets may have different impacts across the Union. As mentioned in paragraph 23 of Chapter 2, some Member States need to increase investment more than others to meet the 2030 targets. Traditional energy industries such as coal mining are important economic activities in regions throughout the Union, providing significant local employment. These issues touch upon questions of social justice and solidarity. The Bank is committed to ensuring the success of the transformation and will therefore create a dedicated **Energy Transition Package (ETP)**.

24. As recognised in the Emissions Trading Systems Directive, some countries are eligible for support under the **Modernisation Fund**[10]. Under the Energy Transition Package, and as an exception to its general rule, the Bank will consider financing up to 75% of the eligible cost of all energy projects eligible under this energy lending policy[11] situated within those Member States benefitting under the Modernisation Fund. In the context of the national energy and climate plans, the Bank will also look to provide advisory services to support the transition. This is partly underway through the JASPERS initiative and, in close cooperation with the EC, could potentially be reinforced in the framework of additional project development services.

[8] The only exception to this principle is for high-efficiency gas-fired co/tri-generation meeting the Bank's criteria, including resulting in greenhouse gas emissions of less than 250 gCO_2 per kWh_e and efficient gas boilers included within building renovation programmes. Full details are presented in Annex II, including the need to meet an economic test based on a comparison with relevant low-carbon alternatives.

[9] Fossil-fuel energy projects will not be presented for approval to the EIB Board beyond the end of 2020. Such projects will be appraised in line with the 2013 Energy Lending Criteria.

[10] The beneficiaries are listed in Annex IIb of Directive (EU) 2018/410 as Bulgaria, Czech Republic, Estonia, Croatia, Latvia, Lithuania, Hungary, Poland, Romania and Slovakia. However, in order to respect the Emissions Trading Systems Directive, the Energy Transition Package will also include projects ''aiming at the decarbonisation of the electricity supply of Greece's islands.''

[11] To avoid doubt, this refers to all projects which can be supported under this energy lending policy from 2021 onwards, i.e. once support for fossil fuel projects has been phased out.

25. The transition also has an important regional and social dimension. There is a need to address the impact of the phasing out of fossil fuel activities on employment and economic activity at a local level, ensuring economic restructuring which gives rise to new employment opportunities. The Bank is already active in several **coal and carbon-intensive regions** providing framework loans to support integrated territorial development strategies. Through the Energy Transition Package, and in close cooperation with current and future EU initiatives, the Bank will reinforce its support for regions transitioning away from fossil fuels. Note that this support for integrated development strategies goes beyond the scope of this energy lending policy, and will be addressed more comprehensively over time in the framework of the Bank's climate strategy.

Supporting the energy transformation and energy access outside the Union

26. Outside the Union, the Bank will also support the development of energy systems that are low-carbon, efficient and reliable, and which improve access to modern and affordable energy. In large parts of the developing world, demand for energy services is growing rapidly and requires the construction of new energy infrastructure that will help foster sustainable economic growth for decades to come. The Bank will focus its support on energy technologies consistent with decarbonisation and the energy transformation. By applying its environmental and social standards and procurement processes, the Bank will continue to ensure the support of sustainable, high-quality infrastructure that delivers long-term economic benefits.

27. As part of its commitment to inclusive and sustainable growth, the Bank will continue to support energy projects that contribute to the aims of the 2030 UN Agenda for Sustainable Development, notably ensuring universal access, accelerating improvement in energy efficiency and doubling the share of renewable energy by 2030 (Sustainable Development Goal 7). Clean energy improves air quality for local populations. Energy is a necessary condition for essential services (education, health) for industrialisation, job creation and economic development (Sustainable Development Goal 8), improving health and well-being (Sustainable Development Goal 3) and poverty alleviation (Sustainable Development Goal 1).

28. The Bank will focus support on the energy transformation within Europe's neighbouring regions: the European energy community, the eastern neighbourhood and southern neighbourhood. The Bank will also support projects in sub-Saharan Africa, where the share of the population with access to modern energy services remains very low. More generally, the Bank will also seek to support the energy transformation in other regions, in particular Asia and Latin America. The Bank will strive to continue to develop a range of financial and non-financial instruments addressing the needs of different regions, in particular in the context of the EU Neighbourhood Development and International Cooperation Instrument initiative and in accordance with the Bank's mandates in these different regions.

29. The Bank's energy lending volume represents only a tiny fraction of the required investment outside the EU. The Bank will continue to reinforce its activities with donors to blend its financial support with technical assistance and investment grants. A wide range of technical and financial advisory support is required across the project cycle, including capacity building. Although the Bank clearly understands that national climate ambitions embodied in the Nationally Determined Contributions are differentiated, the Bank will seek to advance the global leadership of the EU on sustainable development, including climate action. **The Bank will therefore look to support projects that reinforce the Nationally Determined Contributions**.

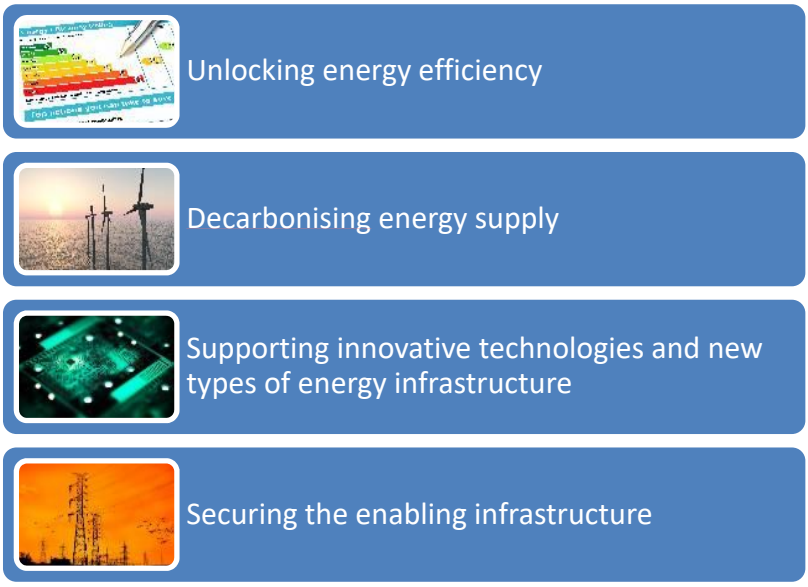
4. The core components of the energy lending policy

1. This chapter summarises the new policy. It is structured around four themes:
    - Unlocking energy efficiency;
    - Decarbonising the supply of energy;
    - Supporting innovative technologies and new types of energy infrastructure;
    - Securing the enabling infrastructure.

2. The Bank recognises that the ''energy efficiency first'' principle applies across all energy investment activities. This refers to the need "*to consider, before taking energy…investment decisions, whether cost-efficient, technically, economically and environmentally sound alternative energy efficiency measures could replace in whole or in part the envisaged…investment measures".* For the Bank, this translates in practice into a requirement to consider carefully the impacts of energy efficiency on future energy demand, when assessing the economic case for energy investments. In this sense, this principle applies to the entire energy lending policy.

3. Annexes I-IV provide further material on the technical and economic criteria used by the Bank in the appraisal of potential projects. These annexes are structured according to the same themes as this report, specifying criteria for all the Bank's operations, both inside and outside the Union.

Figure 1: Themes of the energy lending policy



Unlocking energy efficiency

4. The EU has agreed on an energy efficiency target of 32.5% by 2030. Outside the Union, the UN sustainable development goals seek to double the global rate of improvement in energy efficiency by 2030. Given the persistent investment gap in this area described above, the Bank has an important role to play in supporting EU and national policies to stimulate the necessary investment, both within and outside the Union.

5. Energy efficiency concerns all sectors of the economy and hence is relevant across the Bank's activities. As set out in more detail in Annex 1, the energy lending policy focuses on investments required to reduce demand for energy in buildings and industry, as well as in the supply of energy. To be eligible on energy efficiency grounds, a project needs to demonstrate credible energy savings compared to a baseline.

6. This section sets out three areas on which the Bank will focus in the years ahead: an initiative to increase the renovation rates of buildings; support for high levels of energy performance in new buildings; and the increase of energy efficiency investment by SMEs and industry more broadly. There is an urgent need to invest, and financing energy efficiency remains complex. To accelerate the uptake of energy efficiency investment, the **Bank will finance up to 75% of the eligible portfolio capital cost,** both within and outside the Union.

A European Initiative for Building Renovation

7. Recent European Commission modelling work shows that investment in energy efficiency in Europe will have to more than double in the coming decade. There is a persistent investment gap in building renovation. Owners and other stakeholders have to make decisions to invest in energy efficiency measures. The availability of attractive financing conditions can help encourage that decision.

8. Most of the required individual renovation investment projects are relatively small. The Bank can reach these projects by working in partnership with cities, municipalities, housing companies, funds and corporates, as well as through financial intermediaries with local retail networks. Although the regulatory environment differs across Europe, the Bank has considerable experience in providing finance to partners through a variety of channels, including climate action credit lines, sharing the underlying risks contained within the partner's portfolio of energy efficiency loans, and ensuring access to technical assistance and advisory services that help develop internal capacities to appraise energy efficiency investments. These elements have been put in practice through a number of recent initiatives, including the Private Finance for Energy Efficiency and Smart Finance for Smart Buildings Facility.

9. Experience has shown that support for project development can be particularly helpful in overcoming investment barriers in building renovation. Indeed, solely improving the terms and availability of debt for energy efficiency projects is rarely sufficient. Many investment opportunities, even those offering relatively short payback periods, are not taken. Technical assistance is usually provided in cooperation with the EC for a wide range of energy efficiency activities, from upstream policy development to capacity building and project development, which includes the provision of energy audits.

10. In the EU, together with the EC, the Bank has developed the European Local Energy Assistance (ELENA) facility, which has worked for over ten years to help devise large-scale bankable energy efficiency projects and programmes. The facility focused initially on supporting public authorities, but now also includes private entities, such as banks. The facility has been expanded with a further

EUR 97 million that the Bank will seek to deploy over the period until 2023. This additional funding is focused on residential buildings and aims to support the joint Smart Finance for Smart Buildings initiative.

11. Building on this experience, the Bank will establish a **European Initiative for Building Renovation**. This new facility will increase the visibility of the Bank's activities, give priority to renovation and reinforce Bank support for:

    - The aggregation into portfolios of building renovation projects and the provision of tailored financial support, ranging from traditional long-term loans to guarantees, equity or receivables financing. This support can be provided alongside national or regional financial support programmes;

    - New sources of finance. The Bank will consider supporting new ways to attract finance for building rehabilitation, which may include unlocking new markets in energy efficiency mortgage-based lending or securitisation;

    - Linking the financial products developed with dedicated technical assistance, notably under ELENA, which can help further increase volume and impact.

    The Bank will work in cooperation with the EC to seek further opportunities to develop and support activities in building renovation, with the objective of scaling up lending to this sector, which is facing the biggest investment gap in the EU.

12. There are tremendous opportunities to save energy outside the EU as well. In the Bank's experience, access to funding to help support the preparation and implementation of projects, as well as investment grants, can help deliver significant additional investment. The Bank will therefore seek to increase its cooperation with the EC and other partners to develop and implement programmes to deliver finance and technical assistance for building rehabilitation programmes, notably in the partner and southern and eastern neighbouring countries.

Support to new buildings that exceed national mandatory standards

13. The Bank has supported the initial development of the market for ''nearly zero energy buildings" in Europe over the last five years. It intends to continue to support construction of new buildings with high energy-performance standards.

14. To be considered an energy efficiency project, the energy performance standard of new buildings supported by the Bank[12] will need to exceed national mandated standards and building codes transposing the Energy Performance of Buildings Directive[13]. Moreover, as set out in detail in Annex 2, the Bank will focus its support on housing or buildings that serve a wider public function.

[12] The Bank will continue – under different public policy goals – to support the construction of certain types of new buildings that meet minimum legal standards. However, they will be eligible under those different policy goals and not as energy efficiency projects.

[13] Directive 2010/31/EU on the energy performance of buildings, as amended by Directive (EU) 2018/844. The implementation of the Energy Performance of Buildings Directive requires that national nearly zero energy buildings standards apply to all buildings from 2021. This implies that private buildings achieving nearly zero energy buildings levels, which obtain a building permit until end-2020, remain eligible for EIB financing. The Energy Efficiency Directive requires that savings that result from the implementation of mandatory Union standards shall not be claimed as energy savings.

15. Outside the EU, the rapid pace of new building construction in many countries plays an important role for future energy efficiency. Applying the same principle as within the EU, the Bank will therefore support new construction that goes significantly beyond current practice in a given country, even in the absence of mandatory targets.

Small and Medium-sized Enterprises (SMEs)

16. SMEs, as well as the heating and cooling sectors, represent another important domain in which to target energy efficiency. While major industry tends to be already energy-efficient in the EU, industrial and service SMEs collectively represent one of the largest untapped markets for energy efficiency. SMEs face various barriers that deter the adoption of energy efficiency measures, such as the fragmentation and small scale of the investments, the lack of internal energy-specific capabilities, insufficient information and the limited access to suitable financial products.

17. Given the similarities between SME programmes and building renovation programmes, in terms of delivery channels and investment barriers, the Bank will seek, in close cooperation with the EC, to integrate SME lending into the European Initiative for Building Renovation. This will allow the Bank to provide an integrated package of advisory support and tailored financial support to financial intermediaries.

Decarbonising energy supply

18. The EU has agreed to reduce greenhouse gas emissions by 2030 by at least 40% from 1990 levels. To achieve this target, the EU has revised the Emissions Trading Scheme, which covers power and heat generation and energy-intensive industry. In addition, the EU climate and energy framework includes a binding target of at least a 32% share of renewables in the final energy mix by 2030. This is likely to translate into a share of around 60% of renewables in the electricity energy mix by 2030, with around 30% from variable sources (wind and solar).

Supporting renewables

19. Meeting the EU 2030 target is likely to involve doubling or tripling today's capacity in renewable power generation[14]. The competitive tendering of new capacity and increasing market integration is expected to achieve further cost reduction and deployment of efficient technologies. Deploying this massive capacity of renewables is likely to pose some challenges in terms of system integration, local acceptability and coordination between actors responsible for energy and climate policy. An increasing portion of investments will also be required to maintain and repower existing capacity. The Bank will look to support the roll out of renewables as set out in national energy and climate plans developed by Member States, which collectively need to achieve the EU 2030 target.

20. Moreover, the new European legal framework for renewables seeks to enhance regional cooperation between Member States, including through joint projects and schemes. The Bank will give particular attention to supporting such renewable projects, including cross border schemes,

[14] The Communication on A Clean Planet for all: A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy, COM(2018) 773 final, (Section 4.2.2.3) forecasts wind capacity to increase from 140 GW in 2015 to 350 GW in 2030 and then to between 700 and 1200 GW by 2050 depending on the scenario. Solar capacity grows from 95 GW in 2015 to 320 GW in 2030 and 500 to 970 GW in 2050 depending on the scenario.

and will cooperate closely with the European Commission in the context of the Union's renewable energy financing mechanism[15].

21. As the market share of renewables increases, EU policy seeks to further integrate renewables into power markets. Market integration is necessary to reduce levels of public support and ensure that market revenues increasingly reveal the different values of particular technologies in particular locations. There is a shift from a cost-based approach to a value approach to assessing renewable projects. When appraising the benefits of wind or solar, the Bank considers the profile of generation and takes into account the evolution of the value of production as the market share of variable renewables increases over time.

22. Renewable projects without government support have become an emerging trend in the market. The new legal framework – in particular the EU Emissions Trading Scheme, the renewable and electricity directives – aim to strengthen market price signals. Corporate power purchase agreements are being signed in Europe. Nevertheless, it is still relatively early to conclude how these improvements in the functioning of the wholesale electricity market will impact on investment incentives, including on the availability and cost of finance.

23. Given the large investment needs, the Bank sees a continued role in helping support the market integration process, in particular where exposure to new sources of risk may impinge upon the terms and conditions available in the commercial banking market for renewable projects. The Bank will seek to use the risk-sharing capacity available through InvestEU, or other sources of funding, to reinforce its activities in this area. In particular, the Bank will explore in consultation with the EC the possibility of providing a targeted financial instrument to help support the development of the emerging corporate power purchase agreement market.

Investing in technologies needed for decarbonisation

24. In addition to wind and solar, long-term decarbonisation targets are expected to require investment in a wide portfolio of technologies, including some renewables which currently have relatively high costs. Available evidence[16] suggests that there is strong potential for cost reduction as the deployment of some promising technologies increases. The Bank will therefore continue to focus its support on the early deployment of these technologies with the aim of increasing industrial learning and promoting future cost reduction. When appraising such projects, however, it is difficult to estimate the contribution of an individual project to future cost reductions. As set out in Annex II, the Bank will in general assume a positive overall economic justification for such projects.

25. Other low-carbon technologies are also playing an important role in long-term net-zero emission scenarios by 2050. The Bank's eligibility conditions for support for nuclear power generation and fuel cycle projects remain unchanged from the previous policy, and are set out in Annex II.

26. In comparison with power generation, renewable heat is still at a relatively early stage of adoption. Under the recast Renewable Energy Directive[17], Member States will endeavour to increase the share of renewable energy supplied for heating and cooling. As set out in detail in the Annex, renewable heating technologies (e.g. geothermal, ambient air, biomass, solar) are all eligible for support by the Bank.

[15] This is established under Article 33 of Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action.

[16] For a recent survey, see JRC Technical Report (2018), Cost development of low-carbon energy technologies: scenario-based cost trajectories to 2050.

[17] Article 23 of Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources.

27. In addition, the Bank will also support the production of low-carbon gases, including hydrogen, biogas and synthetic gas, as well as renewable liquid fuels. These energy carriers can play an important role in long-term decarbonisation and require the development of an appropriate regulatory framework in the coming years.

28. The decision to no longer finance power or heat generation from fossil fuel sources implies that the Bank will discontinue the Emissions Performance Standard introduced in 2013. It is replaced by a greenhouse gas emissions eligibility criterion for relevant renewable technologies (e.g. large hydro or geothermal) as well as highly efficient gas-fired co-generation of heat and power (Annex II). It will follow regulatory developments in the context of low-carbon gases.

Supporting innovation and new energy infrastructure

Supporting innovative technologies

29. As noted in the Paris Agreement, significant innovation – and deployment of this innovation through commercial production – is required to accelerate and enable an effective long-term response to climate change. The Bank will support the competitiveness of EU industry in low-carbon technology, including by strengthening the sustainable internal supply of critical raw materials. In addition to improving existing technologies, there is also a need to explore new technological pathways and develop new solutions to manage the interactions between different sectors and integrate the increasing share of renewable energy.

30. A key cornerstone of the energy transformation is the possibility of benefitting from the contributions of a wide portfolio of energy technologies and services. Many of these technologies are still at the RDI stage and need to achieve substantial performance and cost improvements. The EU Strategic Energy Technology Plan provides a roadmap to improve technology performance, complemented by detailed implementation plans to help deliver the improvements through particular projects. **The Bank will continue to support projects aligned with the Strategic Energy Technology Plan**, with particular attention paid to the underlying implementation plans.

31. Demonstrating relatively early stage technologies usually requires public support, such as renewable energy support schemes or grants. Within the context of the fourth phase of the EU Emissions Trading Scheme, the EU has agreed to develop what will become one of the world's largest funding programmes for innovative energy technologies, the **EU Innovation Fund**. Based on its experience, the Bank has worked closely with the European Commission on the design of the new fund. Moreover, in due course, the Bank will seek to provide additional financial support to those projects that are awarded funding under this scheme.

32. Standalone large-scale demonstration projects, however, need to be accompanied by significant deployment of key energy technologies. Development of new production lines for innovative technologies helps to boost European industrial competitiveness. The EU supports innovation and industrialisation of key energy transformation technologies in Europe. In that perspective, in addition to RDI programmes, the Bank will also support investment in pilot and demonstration plants, or initial full-scale commercial production lines related to breakthrough technologies supported under the Strategic Energy Technology Plan and Horizon Europe, such as promising, innovative renewable energy, energy efficiency, heating and cooling or storage technologies.

33. Innovation and its commercialisation is also required to ensure the diffusion of new technologies for consumers, building on opportunities created through the wider trend of digitalisation and decentralisation. Smaller companies are critical in this regard, although often confronted with

particular challenges in raising financing. The EIB will continue to deploy its tailored instruments in this field, including through venture debt and equity funds.

34. To conclude, the development and commercialisation of innovative technologies requires significant investment. However, given the inherent risks involved, conventional debt finance is often unavailable. This has led the Bank, working closely with the European Commission, to develop dedicated financial instruments, which provide direct support to a project, but also serve a wider function in signalling to other potential financiers. **The Bank will look to consolidate this experience to reinforce its support for innovative energy technologies, including for initial production lines,** in particular through InvestEU. The technical and financial expertise of the Bank stands ready to support the origination and implementation of projects via its portfolio of advisory services.

New types of energy infrastructure: battery storage, demand response and decentralised energy sources

35. New technologies, market rules and players are leading to the rapid development of new sources of energy and flexibility. This includes: (i) the provision of flexible sources to the power system derived from battery storage, increasing electrification and demand response; and (ii) the deployment of small-scale decentralised energy sources, enabled by the digitalisation of energy.

36. The capital investment needs for these new types of energy infrastructure are difficult to estimate. New entrants are often involved – energy consumers, energy service companies, energy communities or aggregators – and tend to rely on relatively novel business models for energy producers or consumers.

37. New entrants are likely to encounter difficulties in raising finance in general. This is potentially exacerbated if they are exposed to the risk of wholesale market prices. New market design rules have recently been adopted and financiers cannot take comfort from an established track record.

38. The Bank will seek to support these new types of market-driven energy infrastructure, including with upstream advisory services to help develop robust business models. Nevertheless, the financial risks around new energy business models can be high. The Bank therefore expects to support such projects and counterparties using appropriate financing solutions, potentially supported by EC risk-sharing mandates. Bank financing volumes may remain modest, but they can have a strong early demonstration effect, helping to leverage additional private sector investment.

39. Finally, many new sources of flexibility are still at an early stage of deployment and have relatively high costs. This is expected to change as the capacity deployed increases. For the purpose of its appraisal of such projects, the Bank will adopt a similar approach to that taken for technologies still at an early stage of deployment. It will assume in general that the long-term economic benefits can justify higher initial costs, in particular when there are novel features associated with the technology, revenue streams or market rules. However, in appraising a particular project, the Bank will benchmark it against available sector evidence, notably in terms of cost and expected revenues.

Securing the enabling infrastructure

Investing in strengthening electricity networks

40. For the electricity market, the energy policy framework adopted in 2018 confirms an interconnection target of 15% of installed capacity[18] for 2030, following on from the 10% target for 2020. Such projects typically face coordination issues between Member States. The third list of projects of common interest contains 106 electricity transmission and storage projects, and four smart grids that can benefit from EU grants under the Connecting Europe Facility. The EIB will also continue to support these projects.

41. Besides interconnections, investment in national electricity networks is likely to remain high for the next decade, both at transmission and distribution level. The new Directive on common rules for the internal market in electricity (Electricity Directive) introduces measures to ensure that distribution system operators develop investment plans supporting the integration of renewables. The Directive promotes the use of flexibility sources in distribution networks and requires distribution system operators to cooperate with transmission system operators for the effective participation of these distribution-connected flexibility sources (including renewables, demand response, energy storage and market participants engaged in aggregation) in the internal market (including retail, wholesale and balancing markets). This infrastructure needs to be developed in a timely fashion and anticipate future long-term flexibility needs in order to avoid the risk of slowing the deployment of renewables.

42. Electricity network investment decisions are taken for the long term and this makes the sector a natural fit for a long-term lender such as the Bank. The growth in these types of project will depend on network companies' investment plans and national regulatory frameworks.

43. The Bank will give high priority to projects that will enable the integration of renewables (connection, increase in maximum hosting capacity, reduction of curtailment, etc.) and infrastructure that will be needed to support the development of electromobility and of decentralised flexibility sources connected to distribution networks. The Bank will support the development of energy communities and microgrids, enabling investment in new types of energy infrastructure, including in small isolated systems. This may include, in particular, projects increasing the degree of automation, digitalisation and "smartness" of power systems.

44. In countries outside the EU, the action of the EIB focuses on access to electricity as a fundamental requirement for economic development and regional integration.

Supporting the transition to low-carbon gas networks

45. The Bank will support projects that are designed to connect networks to new sources of production of low-carbon gases. In addition, the Bank will also support investments designed to adapt existing infrastructure towards a credible and imminent high blend of low-carbon gases. However, as set out in Chapter 3, from 2021 onwards the Bank will no longer support investment in other gas infrastructure.

Heat networks

46. District heating networks can play an important role in certain markets both in the EU and outside the EU, and can be used by decarbonised sources of heat supply. The Bank will continue to finance

[18] Communication on strengthening Europe's energy networks, COM(2017) 718.

the expansion and rehabilitation of these networks under the conditions set out in Annex IV. In parallel to its financing, the Bank is providing project preparation and implementation support to public authorities and promoters developing strategies to decarbonise district heating systems.

47. Outside the EU, the EIB will continue to work with the EC and other partners to develop and implement programmes to deliver energy efficiency finance and capacity building technical assistance for district heating, notably in the partner and southern and eastern neighbouring countries.

ANNEXES

EIB ENERGY LENDING POLICY

Supporting the energy transformation

Draft

24 July 2019

Introduction

These annexes provide further details on the Bank's energy lending policy. The first four annexes refer to the themes outlined in the main report. Each is structured in a similar manner. Section 1 defines the classes of projects that the Bank will seek to support. Based on the rationale presented in Chapter 3 of the main document, the second section indicates those types of projects that the Bank sees as providing a particularly high level of support to the Bank's energy lending policy. Finally, Section 3 sets out specific technical and economic criteria that the Bank will apply in general when appraising a particular type of project. Please note that this is not exhaustive, and as part of its due diligence process the Bank's technical team reserves the right to require additional criteria on a case-by-case basis.

Note that these annexes present information which is additional to the general requirements of the Bank, covering the Bank's Guide to Procurement, Environmental and Social Standards, Carbon Footprinting methodology, the Economic Appraisal of projects, or the projects which are recorded by the Bank as contributing to Climate Action. Please note this latter point may be adjusted in due course with the ongoing work within the EU on Sustainable Finance.

The final annex presents an update of the Bank's cost of carbon. This will replace Annex 2 of the Bank's Climate Action Strategy.

Technical changes to these annexes may be made over time. If so, the revised version will be uploaded in due course onto the dedicated Bank webpage.

Annex I: Energy efficiency

This annex covers energy efficiency in buildings, industry and SMEs, public lighting, cogeneration. It does not cover energy efficiency in transport.

1. Eligibility

In principle, the Bank can support the following types of projects:

- Renovation projects which improve the energy performance of existing buildings;
- For new constructions, buildings exceeding minimum regulatory requirements, promoting best market practice and in addition contributing to wider public policy goals such as urban regeneration, education, public research or the provision of healthcare services;
- Investments in public lighting, industrial facilities and SMEs motivated by energy efficiency.

Please note that the Bank's criteria for considering co/tri-generation and district heating as energy efficiency projects are presented in Annexes II and IV respectively.

The same criteria apply both inside and outside EU. However, in order to establish a relevant baseline, it may be necessary to carry out detailed analysis of the minimum requirements and/or applicable market standards in certain jurisdictions.

In order to provide specific technical criteria, detailed eligibility rules for different energy efficiency sub-sectors are provided in section 3.

2. High contribution to ELP

When appraising projects, the Bank will deem the following types of projects to have a high alignment with EIB lending policy:

- Renovation of the existing building stock. The rate of building renovation remains very low (at around 0.4% to 1.2% per year), while a rate of around 2% to 3% per year would be needed to accomplish the Union's EE ambitions;
- Integrated innovative building measures, based on their innovative nature.
- Energy efficiency in SMEs. Collectively SMEs represent one of the largest untapped markets for EE measures, due to the fragmentation and small scale of the investments, lack of internal sector expertise, insufficient information and limited access to suitable financial products;
- Outside the EU, projects which contribute to increasing energy efficiency in line with Nationally Determined Contributions (NDCs) under the Paris Agreement.

3. Technical and economic assessment criteria

SECTOR	SUB-SECTOR	CRITERIA
Buildings	Renovations of existing buildings inside the EU	**Eligibility:** All capital expenditure related to energy efficiency improvements to the building envelope and building systems. The expected energy savings can be estimated through an energy audit, comparison between the energy performance certificate before and after the works, or any other transparent and proportionate method acceptable to the Bank. National energy performance standards for buildings comply with the EPBD, i.e. are in line with the cost optimum level. Project promoters must ensure that their renovation measures are compliant with national energy performance standards. **Economic assessment**: In the case of investment loans, the Bank's economic assessment is based on a cost-benefit analysis that includes energy savings and reduction in GHG emissions [tier 1 benefits], but also other economic benefits such as the extension of the economic life and reduction in maintenance costs [tier 2 benefits], when they are measurable and quantifiable. In the case of bank-intermediated operations, the economic case is assumed ex-ante to be met on the basis of the cost optimality of the national standard.
	New construction inside the EU	**Eligibility** New buildings are eligible for Bank support as energy efficiency projects if (i) the energy performance of the building will exceed minimum regulatory requirements with the aim of achieving best market standards. The definition of these standards will be refined in the future when the taxonomy for sustainable finance is formally finalised; and (ii) the building contributes to increasing the stock of housing or wider public policy goals such as urban regeneration, education, public research or the provision of healthcare services. **Economic assessment**: In the case of investment loans, the economic assessment is based on adjusting the financial returns, considering the economic value of the heat and electricity saved and the externalities – CO_2 savings and security of supply – and whenever possible, other benefits related to energy savings, such as lower maintenance costs, longer asset life, thermal comfort benefits, improved working environment, or higher employee productivity. The expected energy savings will derive from a comparison between the expected performance of the new building and the minimum regulatory requirements for new construction. In the case of intermediated operations, simplified methods are applied.
	Renovations and new construction outside the EU	**Eligibility**: Projects are required to adopt best energy standards as compared to a baseline which will be defined on a case-by-case basis by the Bank's services through a transparent, practical method, such as the IFC's EDGE tool. The Bank will also consider partial energy efficiency eligibility for less ambitious buildings, based on evidence of energy-related individual measures. New buildings should contribute to other public policy goals, such as housing, urban regeneration, education, public research or the provision of healthcare services. **Economic assessment**: As per inside EU.

Public lighting projects		**Eligibility:** Investments to improve the energy performance of public lighting are eligible. Extension or construction of new public lighting systems is generally excluded. Only measures identified by an energy audit carried out in line with EN 16247 (or another equivalent standard) are eligible. **Economic assessment**: A cost-benefit analysis that includes the multiple benefits of energy efficiency, when they are measurable and quantifiable, and the externalities. The expected energy savings will derive from a comparison with the baseline.
Industrial facilities and SMEs	Energy efficiency improvements	**Eligibility**: The investment is eligible as energy efficiency if it is primarily motivated by energy savings and will not increase the capacity of the facility significantly. **Energy savings** must be defined on the basis of either: • an energy audit (in line with the European Standard EN 16247 Energy or equivalent), or • compliance with a white certificate scheme, or • a list of measures set up by the EIB or any other transparent and proportionate method acceptable to the Bank that shows the improvement in energy performance **Capacity** is deemed not to have increased significantly if the overall GHG emissions of the industrial facility will not increase as a result of the project. In other words, any increase in emissions resulting from the increase in capacity needs to be fully offset by emissions savings from the energy efficiency measures on the existing capacity. **Economic assessment**: A cost-benefit analysis that includes the multiple benefits of energy efficiency, when they are measurable and quantifiable, and the externalities. The expected energy savings will derive from a comparison with the baseline.

Annex II: Energy supply

This annex covers the generation of power and heat, as well as the production of fuels, from renewable[19] and low-carbon energy sources. Please note that small-scale RES[20] and innovation projects[21] are included in Annex III.

1. Eligibility

In principle, the Bank can support the following types of projects:

- Power and heat generation from low-carbon energy sources. Production using fossil fuels would only be eligible if combined with abatement technology;
- Power and heat generation from high efficiency gas-fired CHPs;
- In the case of nuclear, in addition to power generation, the entire nuclear fuel cycle, decommissioning and waste management;
- Production and storage of gaseous, liquid and solid energy carriers from low-carbon energy sources;
- Supply of Critical Raw Material (CRM) in the EU needed for low-carbon technologies.

For the avoidance of doubt, exploration and production of non-renewable energy sources is not eligible. Petroleum refineries would only be eligible subject to meeting the energy efficiency criteria set out in Annex 1.

2. High contribution to the ELP

When appraising projects, the Bank will deem the following types of projects to have a high alignment with EIB lending policy:

- Within the EU, projects involving core aspects of the renewable energy directive, including market integration, community schemes, the European renewable energy financing mechanism and cross border aspects;
- The scaling-up of low-carbon technologies at an early-stage of deployment;
- Flexible combined heat and power (CHP);
- Outside EU, projects contributing to increasing the share of renewables in line with Nationally Determined Contributions (NDCs) under the Paris Agreement.

[19] The Bank defines renewable energy sources in accordance with Article 2 of Directive (EU) 2018/2001, i.e. as ''energy from renewable non-fossil sources, namely wind, solar (solar thermal and solar photovoltaic) and, geothermal energy, ambient energy, tidal, wave and other ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases.''

[20] Following the tendering threshold established under paragraph 127 of the Commission Guidelines on state aid for environmental protection and energy, small-scale is defined as installations with an installed electrical capacity of less than 1 MW (and 6 MW of 6 units for wind energy).

[21] This annex covers mature technologies – i.e. those that have reached Technology Readiness Level 9. Innovative projects, with a lower technology readiness level, are covered in Annex III.

3. Technical and economic assessment criteria

SECTOR	SUB-SECTOR/ISSUE	CRITERIA
Power generation	Low-carbon energy sources	Only power generation based on low-carbon energy sources is eligible for Bank support. Depending on local conditions, some renewable technologies can be associated with GHG emissions, e.g. geothermal, large-scale hydro or biomass. The Bank will not support a renewable power project which results in emissions of more than 250 gCO_2_equivalent per kWh_e.
	Economic assessment	The Bank's standard assessment compares the net present value of the social costs associated with the project to the benefits of the power generated, estimated through the long-run marginal social cost to the system, with adjustment where appropriate for profiling and system adequacy. The costs estimate includes the external costs associated with greenhouse gas emissions and local air pollutants. This framework can also be used to estimate the benefit from storage (see Annex 3). Short-term balancing, flexibility and power quality services (voltage control) are typically estimated from market evidence. In general, the economic cost of the project will include the investment in the network required to export power. Note that this may differ from the fixed cost associated with wider system reinforcement. The Bank does not follow this approach in two cases. Firstly, with respect to renewable energy technologies which in general are at an early stage of development – see the section below. Secondly, in the case of projects generating power from waste, the Bank assesses the economic case based on the cost efficiency of waste treatment required by the relevant EU waste directives.
Additional requirements for renewable energy sources	Resource assessment (all RE sub-sectors)	The Bank requires an adequate resource assessment, conducted by qualified specialists. In the case of project finance, this will typically necessitate an independent study or review of the promoter's study, i.e. conducted by a party other than the promoter. This includes a careful consideration of the resource uncertainty. In the case of wind and solar, the study should also address the likely variation in the pattern of resource on a daily and seasonal basis (e.g. 24/12 study showing average hourly output by month or season). Additional criteria apply for certain renewable energy sub-sectors, as specified in the rows below.
	Biomass	The Bank requires all projects to be compliant with sustainability of biomass sourcing and greenhouse gas emissions saving criteria laid down in Directive (EU) 2018/2001. Additional criteria may be required by the Bank on sustainability and security of biomass supply. In the case of power only projects, the Bank's experience is that these projects often do not meet the Bank's economic test (see above).
	Waste to energy	Inside the EU, energy production from waste must be compatible with the objectives of the EU Circular Economy package and be supported by relevant national and regional waste management plans approved by public authorities. Outside the EU, equivalent principles apply.
	Geothermal	In general, the Bank is not able to finance standalone exploration activities, though these costs may be eligible as part of a geothermal production project.

		Artificial stimulation and resulting environmental impacts will be closely scrutinised by the Bank on a case-by-case basis, including heightened scrutiny of environmental and water management, and the capability of robust ongoing regulatory oversight.
	Competitive renewable energy technologies	The Bank closely follows the development of costs within the renewable industry. It deems a renewable technology to be competitive when it is likely to meet the Bank's standard economic test on sites with good resource availability. The Bank deems the following technologies to be cost competitive: onshore wind, hydropower, solar photovoltaic, conventional biomass and conventional geothermal.
	Renewable energy technologies at an early stage of deployment	The Bank recognises that many renewable technologies are not yet cost competitive but, since they have not been deployed at significant scale, have untapped potential to reduce costs substantially over the medium term and become competitive. For these technologies, since learning benefits[22] cannot be quantified within the context of an individual project, the Bank will not run the standard economic test and will instead presume in favour of their economic case. However, in the case that the cost of the project appears significantly higher than other uses of the same technology, the Bank may decide not to support a project solely on economic grounds. This analysis will also consider the impact of the project on local electricity prices. The Bank deems offshore wind and concentrated solar power to be technologies at an early stage of deployment. It will closely follow the further development of offshore wind as this technology may be considered competitive in a few years once there is sufficient evidence of it being so from completed projects across various geographies. For these technologies the Bank will calculate the levelised cost of electricity (LCOE) of projects for comparative purposes and for keeping track of their progress.
Nuclear power	Regulation	Nuclear projects require a positive opinion from the European Commission in accordance with Articles 41-43 of the EURATOM Treaty. This de facto prevents the Bank from supporting nuclear projects outside the EU. The Bank reviews the legal framework in the host country of the project including the implementation of the relevant international conventions and treaties. The Bank will assess the legal, regulatory and institutional framework in relation to nuclear safety, security, safeguards, licensing, liability for nuclear damage and sector regulation. Nuclear projects are likely to present particularly complex environmental and social issues especially because of the wide range of potential impacts and the large number of stakeholders and authorities involved. Projects will be carefully assessed in terms of their compliance with relevant international, EU and national legislation and regulations.

[22] For a comprehensive survey of learning rates, see JRC Technical Report (2018), Cost development of low-carbon energy technologies: scenario-based cost trajectories to 2050.

	Technical	The selection and design of the nuclear technology will be agreed between the promoter and the regulatory authorities. The Bank will nonetheless require promoters to demonstrate that • the proposed technology is compliant with the license obligations (including safety and environmental obligations) and the IAEA safety standards; • it is the best available technology (in line with the EIB's normal procedures); • and that the promoter has the capability and experience to safely implement the project and operate the nuclear facility after project implementation. The Bank appraisal will have to address the full fuel cycle, including handling of spent fuel and radioactive waste and in some cases re-processing and cross-border transportation of radioactive materials. The Bank will review the promoter's spent fuel and radioactive waste management plans including the final disposal solution and assess their alignment with best practices and national and international standards and regulations.
	Economic assessment	The Bank's economic assessment will include the costs associated with the full fuel and project cycle including waste and spent fuel management as well as decommissioning costs. Although difficult to estimate, the Bank will also seek to include appropriate contingencies for construction cost overruns and the costs of nuclear accidents in excess of the costs covered by the promoter.
Heating and cooling; co/tri-generation	Renewable sources	In general, only projects using renewable energy sources are eligible for Bank support. All the technical criteria set out above with respect to renewable energy for power generation apply equally to heat production, including a threshold on GHG emissions. However, as an exception to this general rule, gas-fired co/tri-generation projects may be eligible as energy efficiency projects – see below.
	Economic assessment	In the case of heating or cooling production, the Bank compares the project against the least cost economic alternative, taking into account all relevant external costs. In the case of cogeneration, the Bank will compare the project against the separate generation of power and heat.
High efficiency co/tri generation	Contribution to energy efficiency	To be considered by the Bank as an energy efficiency investment, the project will need to meet both criteria listed below. Calculations will be made using the methodology for high-efficient cogeneration as provided by the EED and its related Decisions 2011/877/EU and 2008/952/EC: a. At least 50% of generated electricity comes from high-efficiency cogeneration, i.e. at least 50% of generated electricity is cogenerated and Primary Energy Savings (PES) for this cogenerated electricity and useful heat reach at least 10% (principal criterion); b. At least 5% net PES is achieved on an annual basis for the entire generated electricity and useful heat (additional safeguarding criterion). Recovery of industrial waste gas or heat is considered to be energy efficient and therefore not subject to the minimum efficiency requirements of the Directive. In the case of gas-fired co/tri-generation, the project is eligible for Bank support if it results in emissions in the production of power of less than 250 g CO_2 per kWh_e. Emissions are allocated between heat and power on the basis of the published EIB Methodology for the Assessment of Project GHG Emissions.

Production of fuels from low-carbon energy sources, including alternative energy carriers such as synthetic fuels or hydrogen	Economic assessment	Projects involving the production of biofuels will be assessed according to the methodology set for biofuels in the "Economic Appraisal of Investment Projects at the EIB". New carriers in general will be subject to similar economic tests. If the scope of a project also entails environmental services these will also be taken into account. For technologies that are still at an early stage of deployment, the Bank will assume that the long-term economic case can justify higher initial costs under certain conditions on a case-by-case basis. The Bank will also treat synthetic gas from non-biogenic sources (e.g. renewable hydrogen) as such.
	Technical requirements	All projects will have to comply with the sustainability and GHG emission savings criteria of Directive (EU) 2018/2001 and Directive (EU) 2009/30. The technologies considered should demonstrate [acceptable] energy conversion efficiency. For projects outside the EU, equivalent principles will apply. For projects based on biomass feedstock, additional criteria may be required by the Bank on sustainability and security of biomass supply and independent resource assessments by qualified specialists will be required. Projects involving the use of wastes for the production of energy or fuels will have to demonstrate alignment with the circular economy strategy of the EU and the relevant national and regional waste management plans.

Annex III: Innovation and new types of energy infrastructure

This annex covers (i) research and innovation in energy, including the commercial demonstration of innovative technologies, and (ii) new types of energy infrastructure.

1. Eligibility

The Bank is able to consider supporting the following types of projects:

- Corporate or national RDI programmes;
- Commercial demonstration of innovative technologies, including both demonstration projects and innovative manufacturing processes;
- All technologies are eligible for innovation financing including renewables, carbon capture and storage, nuclear fission and fusion;
- New types of energy infrastructure including batteries, demand response, market participants engaged in aggregation, electrification of transport, heating, digitalisation projects in the energy sector. More generally, all projects that contribute towards sector coupling and increased flexibility of energy systems can be considered.

Given the potential for innovation in the energy sector, the EIB will consider supporting other technologies, new energy infrastructure and business models compatible with the Paris Agreement and the EU policy objectives.

2. High contribution to EIB lending policy

When appraising projects, the Bank will deem the following types of projects to have a high alignment with EIB lending policy:

- Projects supporting the aims of the SET Plan, including the RDI activities and projects identified through the Implementation Plans;
- Innovation and industrialisation of key energy transformation technologies in Europe: pilot and demonstration plants, or initial full-scale commercial production lines related to breakthrough technologies supported under the SET Plan / Horizon Europe, such as promising innovative renewable energy and storage technologies;
- Deployment of innovative technologies or technologies at an early stage of deployment or business models that can be scaled-up;
- New business models associated with decentralised and small-scale technologies for the decarbonisation of energy by end-users;
- Projects consisting in aggregating small renewable and flexibility sources;
- Outside the EU, projects increasing access to energy with mini-grids and off-grid solutions.

3. Technical and economic assessment criteria

SECTOR	SUB-SECTOR	CRITERIA
Innovation	Innovation, general	The Bank will seek to support technologies which demonstrate significant innovation compared to the state of the art. The promoter should demonstrate the ability to (i) reach financial close with the required equity contribution (as applicable), (ii) deliver a sound project on budget and on time and (iii) commercialise and replicate the technology further in order to achieve meaningful GHG emission reduction. In the cases where public support is necessary for RDI operations, for example through RDI grants or support for innovative projects with special support schemes (e.g. feed in tariffs), it is expected that projects are presented to the Bank with sufficient comfort that such support will be in place[23].
	Commercial demonstration of innovative technologies and manufacturing processes	Technologies should have been demonstrated at scale and be about to enter into commercialisation, i.e. Technology Readiness Level 7 or 8. The promoter should present the technology development track record, preferably with audited data and certifications. For RES technologies, projects need to conform to the criteria presented in Annex II. In the case of initial full-scale commercial production lines, projects should be related to breakthrough technologies supported under the SET Plan and Horizon Europe, such as promising innovative energy efficiency or renewable energy and storage technologies (e.g. Power-to-X).
New types of energy infrastructure and decentralised energy sources	General	The Bank will seek to support new types of energy infrastructure that are at an early stage of deployment and suffer from a lack of investment compared to EU objectives. For new energy business models, attention will be paid to the regulatory and contractual framework enabling the delivery of the flexibility service and justifying the new nature of the business model.
	Economic assessment	Similar to the approach taken in Annex II for renewable energy technologies at an early stage of deployment, given the difficulties in assessing learning benefits, the Bank will presume in favour of the economic case for new energy infrastructure projects when there is a new feature associated with the technology, the revenue streams or market rules. However, the Bank will benchmark costs or expected revenues of individual projects before deciding to support them. The same approach holds for decentralised energy sources. The Bank will benchmark the levelised and unit costs at the portfolio level.
	Battery storage	The proposed technical solutions must fit with the product or service to be provided: chemistry and sizing of batteries must be consistent with the technical, regulatory and market needs.

[23] Both the State Aid Guidelines for Environmental Protection and Energy (2014/C 200/01, par. 3.3.2.1) and the new Renewable Energy Directive (2018/2001, art. 4) give sufficient flexibility to Member States to exempt demonstration projects from tendering procedures.

	Demand response	The Bank will finance components related to hardware, software and installation, at the exclusion of commercial and consumer acquisition costs.
	Electrification/ sector coupling	The project needs to show the benefit in terms of decarbonisation or flexibility for the energy sector.
	Digitalisation	For digital components including applications, platforms, communication and hardware components, the technology solutions must be proven or have reached adequate technology readiness.
	Decentralised energy sources	Please see footnote 3 in Annex II for the definition of small-scale projects. Additional technical requirements: - Individual investments in power generation must comply with the EIB Emission Performance Standard. - Distributed off-grid systems need to provide an acceptable e-waste handling strategy (outside EU) - For rooftop PV: state-of-the-art technology and components and efficient resource utilisation.

Annex IV: Enabling infrastructure

This annex covers (i) electricity grid infrastructure, (ii) gas infrastructure and (iii) district heating and cooling networks. Please note that dedicated CO_2 infrastructure is regarded as part of a CCS project and thus considered in Annex III.

1. Eligibility

The Bank is able to consider supporting the following types of projects:

- All electricity transmission and distribution infrastructure, with the exception of direct connection of generating capacity based on coal and lignite;

- In the case of gas infrastructure,

    a. connection to new sources of low-carbon gases
    b. adaptation of existing infrastructure towards a credible, imminent use of a high blend of low-carbon gases

- District heating and cooling infrastructure.

For avoidance of doubt, oil infrastructure is not eligible for Bank support, nor gas transmission (including LNG terminals[24] and storage) and distribution networks, with the exceptions mentioned above.

2. High contribution to EIB lending policy

When appraising projects, the Bank will deem the following types of projects to have a high alignment with EIB lending policy:

- Improvement of flexibility of the power system;
- Digitalisation, smart grid investments;
- Promotion of energy communities and microgrids;
- EU Projects of Common Interest with significant benefits in terms of decarbonisation;
- Outside EU, projects which significantly expand and improve access to electricity.

[24] In line with paragraph 12 of the Introduction to the ELP, this statement does not cover transport infrastructure dedicated to alternative fuels, which falls under the Bank's transport lending policy.

3. Technical and economic assessment criteria

SECTOR	SUB-SECTOR	CRITERIA
Electricity networks	T&D general	**Technical requirement:** - Planning for network infrastructure must be carried out in line with best industry practice. The design of networks must be sound to ensure reliable and safe operation. - For technologies with limited or no operational experience, qualification tests must be successful and carried out according to industry standards. - Replacement and lifetime extension of assets must be driven by the consideration of performance and remaining economic life. - Distributed off-grid systems need to provide an acceptable e-waste handling strategy (outside EU). **Economic assessment**: All projects should be economically justified based on the EIB methodology. For this purpose, the promoter needs to provide sufficient quantitative information to assess the effect of the project on the system generation cost, network losses, energy not served, demand served, renewable capacity connected, curtailment of RES and CO_2 emissions. When several feasible alternatives exist, the promoters will need to provide evidence that the retained alternative will be the most cost-effective.
	Projects of Common Interest	**Economic assessment**: The promoter needs to provide the Bank with a cost-benefit analysis for the project (for instance ENTSO-E CBA used for TYNDP) including variation in social economic welfare, CO_2 emissions, security of supply and congestion costs/rents. The Bank will review this analysis and potentially adjust the results to account for the Bank's assumptions, notably on carbon cost and fuel costs.
Gas infrastructure		The Bank will support connections to new sources of low-carbon gas, or the adaptation of existing infrastructure towards a credible, imminent use of a high blend of low-carbon gases.
District heating/ cooling networks	Eligibility	The Bank will support the rehabilitation or extension of existing networks, or construction of new networks if the project will not result in any generation of heat from combustion of additional coal, peat, oil or non-organic waste. This criterion should apply to each and every year of operation of the project. Note that the production of heat is covered in Annex II. Thermal storage facilities are considered to be a network investment.
	Economic assessment	For new and extended networks, the Bank compares the cost of the project against a least-cost alternative form of individual heat supply, including all externalities. For rehabilitation, the Bank compares the costs to the expected savings.
	Contribution to energy efficiency	In order to be considered by the Bank as contributing to energy efficiency, the project will need to be part of an ''efficient district heating and cooling system'', as defined in the EU energy efficiency directive.

Annex V: Carbon pricing

Summary

The Bank's carbon prices are shown in the Figure below.

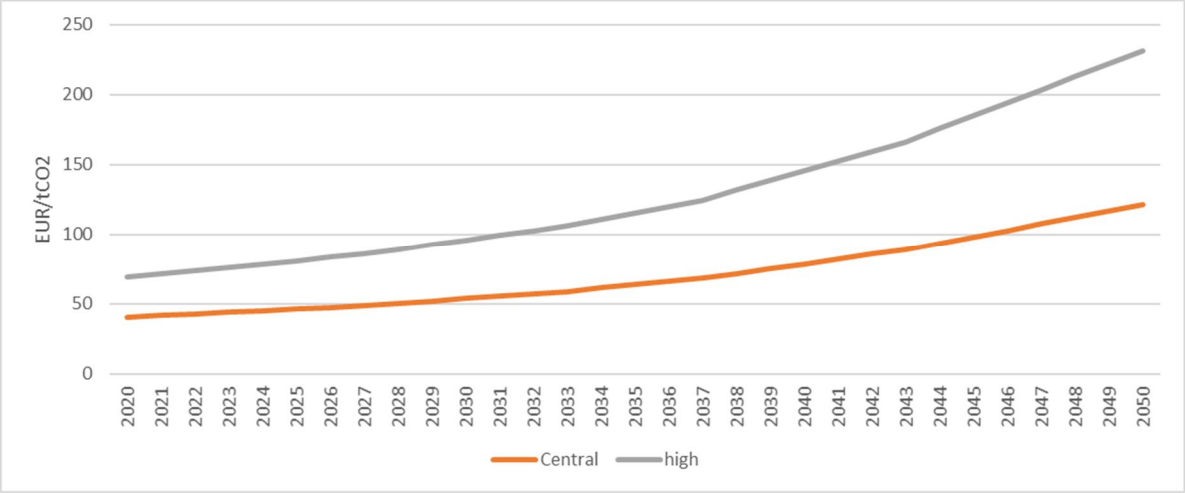


Figure 1 EIB carbon prices

Background

As set out in the Bank's guide to the Economic Appraisal of Investment Projects, the cost of GHG emissions and air pollutants is systematically incorporated into the economic assessment of energy projects. The Bank began to integrate these costs into energy project assessment during the 1990s, and has periodically reviewed its approach subsequently. Most recently, as part of the Bank's Climate Strategy, cost estimates up to 2050 were adopted. This included a range of values: high, central and low, though in practice the Bank did not apply the low values.

These values predate the Paris Agreement. In particular, in 2017, a High Level Commission on Carbon Prices (HLCCP), under the co-chairmanship of Professor Joseph Stiglitz and Lord Nicholas Stern, published a report[25] designed to identify indicative corridors of carbon prices that can be used to guide the design of policy to help deliver the temperature targets. The Commission concludes (p. 3) that: ''*the explicit carbon-price level consistent with achieving the Paris temperature target is at least US$40-80 t/$CO_2$ by 2020 and US$50-100/t$CO_2$ by 2030, provided a supportive policy environment is in place*.'' The range of values is well aligned to the EIB's central to high range of carbon values. As a result, in line with the evidence on alignment with the Paris Agreement[26], the Bank will discontinue reporting the lower value, and **henceforth only apply and report carbon costs within its central to high range**. This is shown in Figure 1 above.

[25] High-Level Commission on Carbon Prices. 2017. Report of the High-Level Commission on Carbon Prices, Washington, DC. License: Creative Commons Attribution CC BY 3.0 IGO. The report is available at https://www.carbonpricingleadership.org

[26] The HLCCP results are based on a 2 degree target. As discussed below, the Bank will continue to monitor the evidence around carbon pricing consistent with the Paris temperate targets and adjust as necessary in the context of future climate activities.

In order to understand how these values are incorporated in practice into the economic assessment of energy projects, it is important to stress three points.

Firstly, the Bank will continue to work with a range of values – from the central to the high values. As discussed in the 2013 Guide to the Economic Appraisal of Investment Projects, the Bank uses a high price of carbon to appraise the economic case for low-carbon projects, thus only screening out competitive technologies[27] if a cost of carbon above the high value is required to justify the economic case for the project. By contrast, for conventional technologies, the central value is used, i.e. a project would be screened out if a cost of carbon below the Bank's central value is required to justify the economic case for the project.

Secondly, it is important to stress that the Bank's cost of carbon estimates provide a reference point. The way in which values are applied to the appraisal of a particular project in practice depends in general on the policy setting. As set out in the 2013 Guide, the cost-benefit analysis of an energy project needs to account for the degree to which the external costs of the project have already been internalised through policy measures. For example, in principle, if the consumer price of heat and electricity were to incorporate a tax on carbon emissions equal to the Bank's carbon value, there would be no need to adjust the financial return of the project for GHG externalities. In the absence of any other external costs or benefits, the financial rate of return of the project would approximate the economic rate of return. This is rarely the case in practice – and hence careful attention is required in principle to adjust financial flows into economic flows in light of the regulatory framework of the project. This might include the presence of a tradeable permit scheme such as the European ETS[28], potentially combined in some countries with a floor on the carbon price[29], national or regional renewable energy and energy efficiency targets[30], as well as subsidies for fossil fuels more generally.

Thirdly, and following on from the last point, the Bank needs on occasion to use long-term forecasts of ETS prices for the financial appraisal of energy projects in the EU. It does this based on a review of a range of forecasts from specialised consultancies and scenarios from relevant energy bodies (e.g. ENTSO-E). Given its occasional role of monetising allowances on behalf of other parties, however, the Bank does not make these forecasts public.

The Bank will continue to monitor this field closely, including working closely with other MDBs to ensure a consistent approach towards the cost of carbon.

[27] See Annex II for more details on the economic assessment of power generation technologies.

[28] For a discussion on the differences between carbon taxes and tradeable permits, see Chapter 3.6 of Cost-Benefit Analysis (2018) by Per-Olov Johansson and Bengt Kriström, or Jorge-Calderón, D. and Johansson, P.-O. (2017) Emissions trading and taxes: an application to airport investment appraisals, *Journal of Transport Economics and Policy*, 51, 249-265.

[29] For a review of the discussion on a carbon floor price within the EU, see David Newbery et al. (2019) The Political Economy of a Carbon Price Floor for Power Generation, *The Energy Journal*, 40(1). From a cost-benefit perspective, this article provides an overview of some of the wider market distortions present in the power generation market – and links well with the discussion on additionality in the section on the general approach of the new policy above.

[30] There is a long tradition of considering cost-benefit analysis in a second best setting – see Johansson and Kriström cited above. In the case of power markets, there are often several instruments targeting one – or potentially more – externalities. For example, an optimal carbon tax or tradeable permit price will also depend on the number of (overlapping) instruments being applied – as recognised by HLCCP (2018), Stern (2006) or Bohringer (2009).

ANNEX 2

CONSULTATION REPORT

Review of the EIB's Energy Lending Policy

Consultation Report

Background

1. This report outlines the outcome of the public consultation process for the review of the Energy Lending Policy of the European Investment Bank (EIB). It also explains how the submissions from the public were taken into account in the revision of the Policy.
2. The 2013 Energy Lending Criteria[1] (ELC) set out the criteria that the EIB uses to screen and assess energy projects and determine whether they are eligible for EIB financing. They were adopted in 2013, following an in-depth public consultation procedure. Articles 8 and 40 of the Energy Lending Criteria stipulate that they will be subject to periodic review to reflect EU policy developments and market evolution. This is therefore the second time that the EIB is carrying out a formal public consultation on energy financing.
3. The aim of the Policy review was therefore to ensure that the EIB's financing of the energy sector continues to be aligned with the EU and international policy framework. This framework has evolved significantly since the publication in 2013 of the ELC, mainly as a result of the Paris Agreement, the new Clean Energy for All Europeans package and the European Commission's 2050 long-term decarbonisation strategy. It aims to deliver ambitious climate and energy targets, which are to be met against a backdrop of rapid technological change and shifts in the dynamics of global energy markets.

The public consultation process[2]

4. On 21 December 2018, the EIB announced the upcoming public consultation on its website. The public consultation was launched on 8 January 2019 with the publication of the public consultation document on the EIB's public consultation website[3]. The document solicited answers to 16 consultation questions. The public had until 29 March 2019 to submit written contributions. A summary of the timeline of the overall process is shown in Annex 1.
5. To ensure better accessibility and outreach, the EIB:
   - sent targeted e-mails to over 4000 stakeholders;
   - made the consultation document available in English, French and German;
   - enhanced the communication strategy by:
     - relaying related information through the EIB's many social media accounts,[4] including those of local offices;
     - organising an interactive "Twitter live" session with Vice-President Andrew McDowell;
     - issuing a press release;
     - webstreaming the public consultation meeting and taking questions from those connected remotely.

[1] https://www.eib.org/en/infocentre/publications/all/eib-energy-lending-criteria.htm
[2] The public consultation was conducted in accordance with Articles 7.10 and 7.11 of the EIB Group Transparency Policy: https://www.eib.org/en/infocentre/publications/all/eib-group-transparency-policy.htm
[3] https://www.eib.org/en/about/partners/cso/consultations/item/public-consultation-energy-lending-policy.htm
[4] Twitter: https://twitter.com/EIB; Facebook: https://www.facebook.com/EuropeanInvestmentBank; LinkedIn: https://www.linkedin.com/company/european-investment-bank/; YouTube: https://www.youtube.com/user/EIBtheEUbank; Instagram: https://www.instagram.com/europeaninvestmentbank/

6. The EIB held a public consultation meeting on 25 February 2019 in Brussels. This was open to all interested stakeholders. It was attended by 112 participants from 20 countries and 3 continents. Among the 112 participants were representatives from business and industry associations (59), non-governmental organisations (19), EU bodies (16) as well as banks (4), other IFIs (2), academia (4), both local and national governments (6) and interested individuals (2). In addition, 256 people followed the discussions via webstreaming.

7. Opened by EIB Vice-President, Andrew McDowell, the public consultation meeting offered the opportunity to exchange views directly with EIB staff about the Bank's Energy Lending Policy and the key issues at stake under the review. During the meetings, staff from the Energy Department delivered a presentation on the rationale behind the review and the main elements of the consultation document.[5]

8. During the consultation meeting, the EIB invited participants to submit written contributions. It was also emphasised that only contributions received in written form could be formally taken into account as part of the public consultation.

9. In total, the EIB received written contributions from 149 organisations or individuals, totalling 867 pages, providing the Bank with rich and diverse feedback and suggestions for the review of its Energy Lending Policy. Of the 149 contributions received, 79 were from industry and business representatives, 36 from civil society (including non-governmental organisations, think tanks, associations, etc.), 24 from individuals, 7 from public and intergovernmental institutions, including 4 contributions from Member States (France, Spain, Sweden and The Netherlands) and 3 petitions signed by over 30,000 people in total. The detailed list of contributors can be found in Annex 2. All the written contributions received as part of the public consultation are accessible on the public consultation website[6].

Summary of contributions received

10. The key points raised in the contributions received are summarised below.

11. The consultation questions were generally well received.

12. A large number of stakeholders emphasised the important role that the EIB should play in leading on climate. The alignment of EIB energy lending with the Paris Agreement is often associated with the need to limit the temperature increase to 1.5C, following the publication of the IPCC report in late 2018 and the publication of the EC strategic long-term vision for a carbon neutral economy by 2050. Contributions encouraged the Bank to increase climate action targets, and take a long-term perspective, looking beyond the 2030 EU targets.

13. In all contributions received, there was an understanding that EIB energy lending should contribute to supporting the EU Clean Energy for All Package, in particular the 2030 targets. Many stakeholders considered that the Energy Efficiency First Principle was important and should be applied across the entire value chain, and there was a consensus that energy efficiency will play a crucial role, particularly in building rehabilitation. There was broad agreement concerning the need to further support renewables to meet the 2030 targets, including more expensive technologies, as well as to promote their integration into energy markets and energy systems through increased flexibility and sector integration. Innovation was another area where many stakeholders stressed the role that the EIB should continue to play.

[5] The presentation is available, together with the meeting agenda and summary, on the public consultation website: https://www.eib.org/en/about/partners/cso/consultations/item/public-consultation-energy-lending-policy.htm
[6] https://www.eib.org/en/about/partners/cso/consultations/item/public-consultation-energy-lending-policy.htm

14. The role of fossil fuels received a lot of attention. The vast majority of civil society organisations, including in the three petitions totalling more than 30,000 signatures, called on the EIB to stop financing fossil fuels. According to this view, fossil fuels are not needed in long-term decarbonisation scenarios. Almost no contribution advocated the Bank supporting the upstream extraction and production of fossil fuels. Conversely, other contributions, mainly from the fossil fuel industry, reminded the Bank of the role that oil and gas infrastructure will continue to play, even in decarbonisation scenarios, thanks to the development of low-carbon fuels such as biogas or hydrogen.

15. As several stakeholders emphasised, security of supply and competitiveness are other important objectives of energy policy (and the Energy Union). Together with technology neutrality, these arguments were brought up mainly by the gas and nuclear industry, while NGOs considered that security of supply should not be an excuse for continuing to support fossil fuels and risk locking in CO_2 emissions. Energy poverty and the concept of just transition were mentioned by a few contributions.

16. Almost all contributions called for the EIB to support energy system flexibility. Stakeholders from the energy industry claimed that their technological solutions could contribute to increasing energy system flexibility, which is needed with a high share of variable renewable energy sources. The role of energy storage, decentralised resources, digitalisation and sector coupling and sector integration – in particular in relation to the electrification of transport – were also often mentioned as important sources of flexibility. While there was a broad consensus on the need to support such new types of infrastructure and new business models, some stakeholders questioned how the Bank would support such sometimes newer and smaller projects.

17. Several stakeholders stressed that some countries have different starting points in terms of decarbonisation. A tailored approach at national level was recommended for countries or regions that need to invest more, and where natural gas is considered to be a cost-competitive resource for reducing emissions in countries dependent on coal.

18. Diverse opinions were expressed about the future role of natural gas in the Energy Union. Part of the stakeholders called for the Bank to stop financing gas projects, including new infrastructure, as gas projects risked becoming stranded assets. However, other stakeholders emphasised the affordability and sustainability of natural gas, and its important role for many Member States including in terms of security of supply. Many contributions highlighted the potential of low-carbon gas, which should be supported by the EIB and can be used by existing infrastructure, mitigating the risk of stranded assets. Several NGOs considered, however, that low-carbon gases are false solutions that should not justify continued investment in gas infrastructure.

19. The potential role of specific technologies for the energy transition were highlighted by many industry stakeholders and industry associations. These include energy efficiency, nuclear, coal, oil, gas power plants, combined heat and power, biofuels, gas networks, electricity networks, storage, power to X technologies.

20. However, contributions received indicated that the different products offered by the EIB are not very well known. This is the case, for instance, with technical assistance in the energy sector or intermediated financing or blending. When products were known, stakeholders tended to ask for simplification and streamlining of EIB procedures.

21. Very few answers were received from stakeholders outside the EU. The contributions from EU stakeholders reflected many different views. Some urged EIB support for the energy sector and energy access, as an EU climate leader. Others recommended stopping outside-EU financing. Others asked the EIB to focus on the EU neighbourhood.

22. Other relevant, broader environmental and social dimensions were also often mentioned, such as the role that the EIB can play in terms of economic growth, promoting EU industry and creating jobs.

The review process

23. An Inter-Directorate Review Panel, consisting of representatives from all Bank Directorates, examined all contributions as part of the review process. It consolidated the written contributions from the public consultation into an Issues Matrix that identifies the separate issues being raised and provides a reaction from the Bank. This matrix is presented in Annex 3.
24. In revising the Bank's Energy Lending Policy, it was also important to learn lessons from previous exercises. The Bank conducted an ex post evaluation of the Energy Lending Criteria for the period 2013-2017. The recommendations of this report were duly taken into consideration in shaping the draft Energy Lending Policy.
25. The public consultation process was led by the Corporate Responsibility Department of the Secretariat General.

The draft Energy Lending Policy

26. As set out in the Issues Matrix, the comments received have been duly incorporated into the draft Energy Lending Policy.
27. The Bank's Management Committee approved the draft document and the draft consultation report on 9 July 2019. Subsequently, the draft Energy Lending Policy, the Issues Matrix containing the Bank's response to the written contributions and this draft consultation report were posted for information on the EIB website on 26 July 2019, 29 working days prior to the Board of Directors meeting, and were made available to Board members. The Board of Directors is expected to discuss the draft Energy Lending Policy on 10 September 2019.
28. Following approval by the Board of Directors, the final Energy Lending Policy will be published on the EIB's website.

Annexes:

1 – Timetable of consultation process

2 – List of Stakeholders from whom written contributions were received

3 – Issues Matrix

Annex 1 - Timetable of the consultation process

Timetable for the consultation process	
21 December 2018	Announcement of consultation on the EIB's website
8 January 2019	Publication of the consultation document 'Public consultation on the EIB Energy Lending Policy'
25 February 2019	Public consultation meeting in Brussels
29 March 2019	Deadline for submitting contributions
9 July 2019	Management committee approval of the draft Energy Lending Policy and consultation report
26 July 2019	Publication on the EIB's website (at least 15 days before approval)
TBC	Board of Directors approval

Annex 2 - List of Stakeholders from whom written comments were received

EIB ENERGY LENDING POLICY PUBLIC CONSULTATION CONTRIBUTIONS			
ID	**Organisation**	**Sender name**	**Country**
1	zxlidars.com	Matt Smith	UK
2	Electricidade de Moçambique	Rodriguez Laidone	Mozambique
3	Windland Energieezuegungs GmbH	Joachim Falkenhagen	Germany
4	Terna Energy	George Peristeris	Greece
5	EDP Energias de Portugal	Nuno Pina	Portugal
6	Christian Aid	Katherine Kramer	UK
7	Individual	Vicente Parajon Collada	Luxembourg
8	1 216 e-mails	Greenpeace petition	Multi-region
9	Individual	Marie-Jeanne Irles	France
10	Anonymity requested by contributor		
11	Wexam Consulting	Blerina Vila	Belgium
12	PKEE (Polish Electricity Association)	Dariusz Dybka	Belgium
13	EDP Renewables	Celma Joao Batista Pires	Spain
14	Wind Farm Analytics	Theodore Holtom	UK
15	WM Equity Partners	Milos Slavic	Serbia
16	Big Shift (118 signatures)	N/A	Multi-region
17	Polden-Puckham Charitable Foundation	Christine Oliver	UK
18	Friends of the Earth Netherlands	Evert Hassink	The Netherlands
19	Individual	Pier Luigi Caffese	Italy
20	Individual	Marie-Claire Tonelotto-Hubert	Luxembourg
21	Individual	Yves O'Reilly	France
22	N/A	Vincent Soubeyran	Luxembourg
23	N/A	Gaelle Tavernier	Unknown
24	N/A	Franck Eloi	Switzerland
25	PROgroup	Romain Poulles	Luxembourg
26	Individual	Rene Croci	France

27	Individual	Alison Barkshire	Unknown
28	Individual	Michel Premont	Unknown
29	Individual	Meghann Christen	Unknown
30	Individual	Julien Darnois	Luxembourg
31	Individual	Dennis Fisher	UK
32	Individual	Genevieve Franke	Unknown
33	ETIP Bioenergy	Patrik Klintbom	Germany
34	Sandbag	Dave Jones	UK
35	Energy Cities	David Donnerer	Belgium
36	Individual	Noemi Vargha	Unknown
37	ROMATOM	Gheorghe Lucaciu	Romania
38	Climate action network (CAN)	Rachel Simon	Belgium
39	Individual	Luc Hurt	Luxembourg
40	Holding Slovenske Elektrarne	Sasa Podlogar Znidarsic	Slovenia
41	Habitat for Humanity	Gyorgy Sumeghy	Slovakia
42	Confrontations Europe	Anne Macey	Belgium
43	Eco-Union	Kristian Petrick	Spain
44	Individual	Pascale Gille	Luxembourg
45	Individual	Dimitra Mitsika	Unknown
46	Individual	Esther Schneider	France
47	CEE Bankwatch Network	Anna Roggenbuck	Poland
48	Energy Technologies Europe	Han Grijn	Belgium
49	Sauvons le Climat	Marc Deffrennes	Belgium
50	Individual	Eva Girodon	Unknown
51	Red Electrica de Espana	Tomas Gallego Arjiz	Spain
52	EASE (European Association for Storage of Energy)	Mathilde Arjakovsky	Belgium
53	Association Workshop for All Beings	Radoslaw Slusarczyk	Poland
54	Wirtschaftskammer Österreich	Ralf Kronberger	Austria
55	BP	Rutger Huijgens	Belgium

56	Food&Water Europe	Frida Kieninger	Belgium
57	International Union of Property Owners	Eva Brardinelli	Belgium
58	Fuels Europe	Nicolai Romanowski	Belgium
59	Friends of the Earth Europe	Colin Roche	Belgium
60	Kulturalt Legi Kozlekedesert Egyesulet	Zoltan Frik	Hungary
61	Anonymity requested by contributor		
62	Greenpeace	Piotr Wojcik	Belgium
63	Housing Europe	Julien Dijol	Belgium
64	Oil Change International	Alex Doukas	USA
65	Enagas	Abel Enriquez	Spain
66	COGEN Europe (on behalf of PACE consortium)	Alexandra Tudoroiu-Lakavice	Belgium
67	ENGIE	Philippe Opdenacker	Belgium
68	REScoop.eu	Josh Roberts	Belgium
69	GAZ-SYSTEM	Artur Wozniak	Poland
70	Naturgy	Valencia Serrano	Spain
71	Polska Grupa Energetyczna	Jedrzej Masnicki	Poland
72	ING	Shannon Van der Linden	Belgium
73	Fluxys	Michel Van den Brande	Belgium
74	DESFA	N/A	Greece
75	IBERDROLA	N/A	Spain
76	Wartsila	Marko Vainikka	Finland
77	INDAVER	Catherine Joyce O'Caollai	Ireland
78	Energi Företagen	Cecilia Söder	Sweden
79	Les Amis de la Terre France	Cecile Marchand	France
80	Global CCS Institute	Annya Schneider	Belgium
81	MGFT	Annamaria Feher	Hungary
82	Germanwatch	Sophie Bartosch	Germany
83	Bioenergy Association of Finland	Harri Laurikka	Finland
84	Confederation of European Waste-to-Energy Plants	Marta Gurin	Belgium

85	Anonymity requested by contributor		
86	TAP AG	Ilham Akbarov	Switzerland
87	MAN Energy Solutions SE	Michael Raila	Germany
88	Hydrogen Europe	Nicolas Kraus	Belgium
89	SolarPower Europe	Sonia Dunlop	Belgium
90	SNAM	Roberto Giannetto	Italy
91	Re-Source	Sonia Dunlop	Belgium
92	Public Power Corporation S.A. (Greece)	Konstantinos Chronis	Greece
93	FORATOM	Jessica Johnson	Belgium
94	EDSO	Henning Twickler	Belgium
95	EGEC (European Geothermal Energy Council)	Thomas Garabetian	Belgium
96	Anonymity requested by contributor		
97	LNEG	Ana Picado	Portugal
98	Redexis	Beatriz de Zavala	Spain
99	EuroACE	Adrian Joyce	Belgium
100	Anonymity requested by contributor		
101	Anonymity requested by contributor		
102	CEZ	Lucie Horova	Czech republic
103	Finnish Energy	Katariina Lehtimaki	Finland
104	Energy for Humanity	Kirsty Gogan	UK
105	COGEN Europe	Alexandra Tudoroiu-Lakavice	Belgium
106	GIE (Gas Infrastructure Europe AISBL)	Barbara Jinks	Belgium
107	ZEP (Zero Emissions Platform)	Chris Gent	Belgium
108	Ministry of Finance	Tobias Linde	Sweden
109	EFIEES	Alessia Endellini	Belgium
110	T&D Europe	Diederik Peereboom	Belgium
111	EU Turbines - European Association of Gas and Steam Turbine Manufactures	Sonia Clarena Baron	Belgium
112	Eni SpA	Vincenzo Conforti	Italy

113	Friends of the Earth-CEPA	Juraj Melichar	Slovakia
114	Uniper SE	Kavita Ahluwalia	Belgium
115	Eurogas	Nicolas Jensen	Belgium
116	European Alliance to Save Energy (EU-ASE)	Senta Marenz	Belgium
117	Gas Networks Ireland	Eoghan Mc Carthy	Ireland
118	PGNiG	Krzysztof Fal	Poland
119	Friends of the Earth Hungary	Alexa Botar	Hungary
120	EUGINE	Gaetan Claeys	Belgium
121	IRENA (International Renewable Energy Agency)	Ahmed Abdel-Latif	UAE
122	350.org (29 657 signatures)	Tim Ratcliffe	Germany
123	Ministry of Economic Affairs and Climate Policy	Kim Solberg	The Netherlands
124	Non-disclosure requested by contributor		
125	Euroheat & Power	Gabriele Pesce	Belgium
126	Wind Europe	Guy Brindley	Belgium
127	Veolia	Kamila Waciega	France
128	EDISON	Valeria Palmisano	Belgium
129	World Nuclear Association	David Hess	UK
130	Ministry of Energy/Ecological Transition	Alfonso de las Heras	Spain
131	EDF	Veronika Milewski	France
132	CEE Bankwatch Network	Krista Petersone	Latvia
133	French Government	Lucie Teixeira Marinho	France
134	CEE Bankwatch Network	Izabela Zygmunt	Poland
135	Transagaz	Dan Niculaie	Romania
136	IOGP	Kamila Piotrowska	Belgium
137	E3G	Helena Wright	UK
138	EUROCOAL	Brian Ricketts	Belgium
139	ESB Ireland	Clive Bowers	Ireland
140	ONTRANS Gastransport GmbH	Johannes Stolle	Germany
141	WWF	Sebastien Godinot	Belgium

142	Uniper SE	Adam Kanne	Sweden
143	Individual	Florian Dierickx	Unknown
144	Friends of the Earth	Meaghan Carmody	Ireland
145	Windkraft Simonsfeld	Alexander Hochauer	Austria
146	DecarbHeat	Thomas Nowak	Belgium
147	Counter balance - On behalf of 8 NGOs	Xavier Sol	Multi-region
148	Union of the Electricity Industry - Eurelectric	Krysztof Laskowski	Belgium
149	Birdlife	Noa Steiner	UK

European Investment Bank The EU bank

Annex 3 - Public Consultation on the EIB Energy Lending Policy

Issues Matrix
Comments from Stakeholders and EIB Response

This issues matrix is subject to the approval of the corresponding draft Energy Lending Policy by the EIB's Board of Directors

July 2019

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 (ELP)?

	Topic	Summary of comments	Contributions	EIB response
1.1	**Generally agree**			
	Yes	The consultation document provides a good, concise description of trends in the energy sector.	2, 4, 6, 15, 33, 42, 54, 75, 76, 93, 94, 95, 111, 121, 124, 126, 129, 148	The EIB takes note of these comments. The description of the energy transformation in the ELP has been drafted to reflect missing points in the trends (see Chapter 2, paragraphs 5 to 10, of the ELP). See also points 1.2 to 1.15.
	Yes, but some dimensions not enough emphasized	The consultation document provides a reasonable characterisation but some specific points are not enough emphasized. In addition, most answers partly agree with the description but highlight specific points that are in the consultation but could be emphasized.	11, 54, 78, 120, 141	
1.2	**Alignment with the Paris agreement and long-term targets**			
	Paris Alignment /European Commission (EC) 2050 Long-term strategic vision	Alignment with the Paris Agreement and limitation of the temperature increase to 1.5°C are important objectives. The EC communication on the 2050 long-term strategic vision is to reach a carbon neutral economy by 2050. The EIB as an EU institution needs to be a climate leader.	8, 6, 18, 34, 36, 38, 43, 44, 45, 46, 47, 53, 56, 59, 62, 79, 80, 93, 99, 104, 123, 126, 133, 137, 141, 143, 144, 145 147, 149	These dimensions are reflected in the ELP. Chapter 2, paragraphs 1 and 2, of the ELP present the Paris Agreement and the Intergovernmental Panel on Climate Change (IPCC) report on 1.5°C. Paragraph 13 presents the EC 2050 long-term strategic vision for a carbon neutral economy. This strategic vision is under discussion by the European Union (EU) at the time of drafting this report. In addition, the EIB is also undergoing a mid-term review of its Climate Strategy, which will also look at the question of the Alignment of the overall bank's activities with the Paris Agreement. New ELP priorities are tackling climate change (see Chapter 4 of the ELP).
	1.5°C	EU discussions on long-term strategy are still ongoing. A 1.5°C target has not yet been formally adopted by the United Nations Framework Convention on Climate Change (UNFCCC) COP 24 and EU Member States.	1, 12, 37, 43, 118, 138	
	Long-term	A long-term (2050) time horizon needs to be taken into account for climate mitigation measures.	47, 56, 59, 79, 123, 133, 144, 148	

	Topic	Summary of comments	Contributions	EIB response
	Climate urgency	Tackling climate change is urgent (climate urgency).	6, 9, 27, 34, 36, 38, 44, 45, 144	(see previous page)
	NECPs	The National Energy and Climate Plans (NECPs) are a reference and enable to observe Member States who lag behind in achieving targets.	47, 81, 96, 119, 127, 133	Only draft NECPs in the EU are available at the time of drafting the ELP. The EIB will engage with Member States and stakeholders on the basis of these plans. The EIB also takes note of the Nationally Determined Contributions (NDCs).
	Pledges	Current pledges made by the individual Member States lead to a 3°C scenario. It is therefore clear that additional investments are needed to reach the 1.5°C scenario.	56, 59	
1.3	**Role of fossil fuels**			
	Fossil fuels are not needed	Fossil fuels are not needed in long-term decarbonisation scenario (and therefore the EIB should stop financing fossil fuels).	6, 12, 17, 18, 22, 24, 25, 26, 27, 32, 34, 35, 43, 47, 56, 59, 62, 64, 79, 80, 95, 123, 144, 145	In Chapter 3, paragraph 21, of the ELP, the EIB acknowledges the role that fossil fuels will continue to play within the global energy system through to 2030. However, as discussed in Chapter 3, paragraphs 18 to 20, the EIB can provide higher value by focussing on the long-term investment challenge associated with EU targets.
	Fossil fuels are needed	Conversely, for some contribution, oil and gas are still needed, at least in some sectors (transport or heating), and can serve as feedstock or high temperature heat for other industries.	58, 65, 80, 90, 96,114, 118	
1.4	**Scenarios and uncertainties**			
	International Energy Agency (IEA) scenarios	IEA New Policies Scenario (NPS) should not be considered as a valid scenario.	141	Several long-term energy scenarios are used, depending on the geography and data available. As far as possible, the EIB aligns with the results of the EC Primes modelling. Other scenarios are used when data are not available in Primes, most notably for outside EU. The IEA NPS is a projection of existing policies and policies under development. The NPS scenario does not provide a
	Scenarios	Several scenarios including IEA Sustainable Development Scenarios (SDS) or IRENA global REmap analysis, show the importance of renewable energy (RE) and energy efficiency (EE) that could be stressed.	53, 62, 71, 99, 112, 116, 121, 136, 137	

	Topic	Summary of comments	Contributions	EIB response
		There is a controversy around the IEA SDS scenario (which is leading to an increase of temperature above 1.5°C). Eurelectric decarbonisation pathways can also be used as a reference.		reference compatible with the Paris Agreement, but diversity of scenarios illustrate the inherent uncertainty of climate policies and decarbonisation pathways. The EIB takes note of the controversy around the IEA SDS scenario.
	Role of government	The direction of travel for the energy transformation is clear, but the path is more uncertain, implying a critical role for government policy.	126, 137	
	Priorities are known	Uncertainty of the transformation of the energy sector is exaggerated, key priorities are known.	3	
1.5	**Security of supply**			
	Security of supply	Ensuring security of supply is another important objective in the energy sector.	2, 12, 40, 49, 54, 67, 71, 73, 86, 125, 128, 133, 142, 148	Energy security is an important objective of the Energy Union and a necessary condition for the success of the energy transformation. Energy security has been, and remains, an important objective of the EIB lending in the energy sector. The energy security dimension is mentioned in several instances in the new ELP, including in Chapter 3 paragraph 22 in the context of the decision to phase out lending to energy projects reliant on fossil fuels. The phasing out of support to fossil fuels projects will avoid locking-in fossil fuel use. The EIB will also support the production of low-carbon gases, including hydrogen, biogas and synthetic gas as well as renewable liquid fuels (see Chapter 4, paragraph 27, of the ELP).
	Electricity security	Electricity security issues resulting by the integration of renewables need to be mentioned.	3, 90, 95, 118	
	Risk of lock-in	Investment justified on the ground of energy security could lead to locking-in fossil fuels use.	3, 56, 79, 99, 144	
	EE and RE	EE and demand reduction also improve security of supply.	59, 99, 144,	
	Role of different technologies	Other technologies and fuels can also contribute to increase security of supply (hydrogen, gas networks, gas, renewable gas).	40, 65, 86, 88, 98, 112, 128	
	Inertia	System inertia is a growing issue in power systems with larger and larger shares of Renewable Energy Sources (RES).	52	
	Dependence on raw materials	Renewables and batteries increase dependence on raw materials and rare earth, creating new issues for security of supply.	93, 99	As stated in Chapter 4, paragraph 29, of the ELP, the production of critical raw materials within the EU will be eligible for support by the EIB.

	Topic	Summary of comments	Contributions	EIB response
1.6	**Efficiency/competitiveness and affordability**			
	Cost	Emphasis is made on the costs of the energy transformation and its consequences. Investment in renewables can lead to increases of energy prices.	71, 73, 112, 115, 142, 94	The transformation of energy systems requires massive investments in capital intensive technologies as well as the early deployment of some technologies, in order to reduce their cost over time. This strategy was successful for wind and solar power, the cost of which has declined dramatically over the last years, enabling a substantial increase of their share in the energy mix (see Chapter 2, paragraphs 5 to 10, of the ELP). The choice of technologies being deployed is a matter of European and national policies and depends on the market. As part of its general procedures, the EIB is performing an economic assessment of projects in order to ensure that it finances investments that are economically justified. All low carbon technologies are eligible for EIB financing but need to demonstrate a positive economic case under the EIB's economic assessment set out in Annex II of the ELP. Technologies that are at an early stage deployment are expected to become competitive over time.
	Competitive-ness	The EIB needs to pay attention to the efficiency and competitiveness of investments.	49, 54, 133,	
	Competitive technologies	Cost of the energy transition can be reduced by using different technologies, including gas or Combined Heat and Power (CHP).	105, 106, 118	
	High cost of Renewables	Renewables are still expensive, not mature technologies and are subsidised by governments.	71, 86	
	Technology neutrality	Avoid picking winners: the description needs to include all low-cost options and low-carbon technologies (rather than only renewables).	55, 58, 83, 90, 96, 98, 104, 118	
1.7	**Decentralised and Digitalised**			
	Decentralisation	There is a trend towards more decentralised energy sources and investments.	, 18, 43, 46, 68, 76, 87, 94, 100, 103, 110, 120, 144	The ELP notes the trend towards more decentralisation and digitalisation (see Chapter 2, paragraph 5, of the ELP). The EIB has developed financing channels and instruments to address this growing market. The ELP also defines these activities as high priority for the EIB. Please note that the EIB can also work with public and local authorities to develop energy projects, including through the European Local Energy Assistance (ELENA) facility.
	Digitalisation	The energy sector is becoming increasingly digitalised and deployment of smart grids and smart meters will enable consumers to participate in energy markets.	40, 65, 85, 96, 100, 110	
	Role of local authorities	Local authorities are expected to play a more important role.	68	
	Role of citizens, energy	Consumers will also become producers (prosumers) and together with citizens and energy	40, 46, 65, 68, 85, 100, 110	

	Topic	Summary of comments	Contributions	EIB response
	communities and prosumers	communities, they have an important role to play in the energy transition.		
1.8	**Geographical differences**			
	Differences between Member States	Efforts to decarbonise require more investment in less advanced Member States or those with difficult economic situations. There are regional differences in the starting point of countries that need to be taken into account, including in Eastern Member States and peripheral regions.	4, 12, 69, 71, 74, 92, 96, 104	The EIB recognises the fact that different countries have different starting points when it comes to decarbonisation of energy systems and that the investment effort to transform the energy system may be more challenging in some regions. In that perspective, the EIB will establish an Energy Transition Package (ETP) to provide targeted support to these regions (see Chapter 3, paragraphs 23 and 25, of the ELP).
	Least advanced countries	In less advanced countries, gas can help reduce CO2 emissions.	65, 70, 71	
	Energy mix is a country decision	The energy mix is a Member States' decision.	104	
	Sustainable Development Goal 7 (SDG7)	The SDG7 can be mentioned as a guiding framework.	6, 123	The EIB's ELP supports the aims of SDG7 (universal access, accelerating EE and increasing RE by 2030) as well as the EU external action on energy and climate – aiming at playing a leading role on climate (see the EIB's responses to Q16 on outside EU).
	Outside EU	Decarbonisation of energy systems outside the EU is important and the EU can be a leader in terms of Climate Action outside the EU.	6, 34, 59, 67, 76, 112	
1.9	**Flexibility**			
	Flexibility needs	Medium and long-term flexibility is needed in order to transform energy systems with high share of variable renewables.	3, 87, 111, 126	As reflected in both the public consultation document and the ELP, there is a need to increase energy system flexibility, which can come from different sources including sector coupling between gas, electricity and potentially other sectors. See Chapter 2, paragraph 5, and Chapter 4, paragraphs 35 to 39, of the ELP.
	Flexible technologies	Many technologies can increase flexibility of energy system: storage, demand response, conventional generation, dispatchable renewables, nuclear, district heating, Power-to-X, grids, CHP, etc.	3, 40, 51, 64, 65, 74, 76, 86, 87, 90, 95, 96, 98, 104, 105, 107, 111, 124, 125, 126, 129, 131	

	Topic	Summary of comments	Contributions	EIB response
	Grids	Electricity grids are already available to enable the integration of renewable and decentralised resources.	3, 51, 110	(see previous page)
1.10	**Sector integration**			
	Sector coupling and integration	Sectors need to become more integrated as the energy system is decarbonised, including electricity, gas, (including via the use of hydrogen), heating, cooling, and transport.	6, 61, 72, 76, 78, 81, 87, 88, 96, 100, 103, 104, 106, 128	Increasing sector integration is driven by the increased electrification of sectors like heat and transport, as mentioned in Chapter 2, paragraph 5, bullet point 5, of the ELP, including at local level. In addition, technologies like power-to-X further link the power sector and other energy carriers like hydrogen and synthetic fuels. Electrification is an important trend associated with decarbonisation, even in scenarios that still rely on other energy carriers like decarbonised gases, and deploying the enabling power infrastructure is a no regret option. Circular economy is an important EU policy that the EIB supports across sectors (see the EIB Circular Economy Guide). The ELP does not cover the transport sector, it does mention clean mobility as well as storage and biofuels and liquid fuels. See the EIB's Transport Lending Policy.
	Electrification	Electrification will facilitate decarbonisation of the EU economy and increase EE.	3, 75, 111, 126, 127, 148	
	Electrification not sufficient	Electrification is not sufficient to achieve decarbonisation objectives. Need to prioritise other objectives.	58, 65, 87, 90, 95, 105, 112, 118, 120	
	System efficiency	The ability to ensure the efficient and optimised balanced of demand and supply of energy system is not fully captured (System efficiency).	100, 110, 120	
	Circular economy	Circular economy could be mentioned in the description of the energy trends.	124, 133	
	Local dimension	System integration and flexibility should be fostered at local level.	105	
	Transport	The transport sector and the synergies between energy and transport (including electricity and gas) are not sufficiently addressed in the consultation document.	31, 33, 61, 73, 86, 96, 104, 130, 131	
1.11	**Energy efficiency (EE)**			
	"EE first" principle	EE is a top priority of the EU and the "energy efficiency first" is an important principle.	47, 62, 85, 105, 109, 144, 147	The EIB has adopted the "energy efficiency first" principle across its energy activities (see Chapter 4 introductory paragraph 2, of the ELP). This is reflected by putting EE (which includes building related renewables as well) as the first core theme of the ELP.
	Value chain EE	EE needs to be considered across the entire value chain, including on the production and storage of energy.	125	

	Topic	Summary of comments	Contributions	EIB response
	Building renovation	Building renovation is one of the biggest challenges to increase EE in the EU.	57	As presented in Chapter 4, paragraph 2, it also implies that the EIB is taking conservative demand forecast assumptions consistent with measures that give priority to EE. The EE gains of all technologies are considered, including in heating systems. Increasing investment in building rehabilitation within the EU is one of the main priorities of the ELP. See the EIB's responses to Q5, Q6 and Q7 for more details on EE and building rehabilitation.
	Gas energy efficiency	Gas technologies can improve the efficiency of buildings and transport. High efficiency gas appliances including fuel cells, condensing boilers contribute to increase energy efficiency.	65, 96	
	EE and RE	EE and RE go hand in hand.	109, 121	
1.12	**Environmental and Social**			
	Social acceptance	Maintaining social acceptance is another objective of the energy transformation.	12, 92, 100, 148	Social acceptance issues are important dimensions for all energy projects. This includes the impact on bills (affordability) and the social impact of new infrastructures, in particular renewables and network infrastructures. The EIB Environmental and Social Standards play an important role in determining the EIB's support to energy projects. In its project appraisal, the EIB also estimates the number of jobs associated with all the projects it finances.
	Biodiversity	Nature and biodiversity should be taken into consideration at all stages of projects.	149	
	Environment	Air pollution and environmental requirements (for instance water management) need to be mentioned.	55, 96, 126	
	Jobs	Climate and energy policy can be combined with employment policy.	54	
1.13	**Role of Gas**			
	Gas and CO2 emissions	Natural gas can contribute to reduce CO2 emissions and gas is a transition fuel.	55, 65, 67, 73, 74, 81, 86, 87, 90, 98, 106, 114, 117, 118, 136,	Many Member States are still largely dependent on fossil fuels. While meeting the EU 2030 targets can be achieved by switching from coal to gas in some countries, the use of natural gas is expected to be reduced by 20% from today's level by 2030, and by 70 to 85% by 2050 in EC PRIMES modelling. There is a role to play for low carbon gases, including renewable gases, hydrogen and synthetic gases. The production of these gases are eligible for the EIB's support.
	Low-carbon gases	New low-carbon gases including biogases and e-gases such as hydrogen are available and can be developed, enabling switching from natural gas to sustainable fuels. Consequently, investment in gas infrastructure is still needed.	65, 67, 69, 73, 75, 100, 90, 96, 98, 101, 112, 114 117, 125	

	Topic	Summary of comments	Contributions	EIB response
	False solutions	Renewables gases are false solutions.	59, 62	The EIB, however, recognises the current uncertainty in future cost development and rate of deployment. See the EIB's responses to Q9, Q14 and Q15.
	Gas terminology	The terminology on renewables should include hydrogen, biomethane and synthetic gas.	96, 106	The EIB takes note of this comment and will seek to adopt EU terminology for them.
	Gas and power sector coupling	Full consideration should be given to sector coupling between electricity and gas, to improve flexibility and seasonal storage thanks to renewable gases.	86, 87, 90, 96, 98, 106, 111 118, 120, 140	The EIB takes note of this comment.
	Gas and Transport	Gas can play a role in the transport sector.	73, 114, 117, 128	The EIB takes note of this comment. However, the ELP does not cover the eligibility of the EIB's support to the transport sector (see the EIB's Transport Lending Policy).
1.14	**Role of nuclear**			
	Role of nuclear	Nuclear energy is a low-carbon energy source playing an important role in the long-term scenarios (EC 2050 long-term strategic vision and IEA scenario). The choice of nuclear is a national matter.	37, 12, 42, 49, 71, 78, 93, 99, 103, 104, 113, 129, 131, 142, 148	Nuclear is the largest source of low carbon generation in Europe and the role of nuclear remains important in long-term decarbonisation scenarios, to provide energy and contribute to the flexibility of the power system. However, nuclear raises safety and security concerns and the role of nuclear in the EU remains controversial. The EIB recognises that the energy mix in every Member State is a national matter. The EIB's eligibility conditions to support nuclear power generation and fuel cycle projects remain unchanged from the 2013 Energy Lending Criteria and are set out in Annex II of the ELP.
	Nuclear and flexibility	Nuclear is also a low-carbon source that is flexible and reliable, enabling to integrate renewables in a cost-efficient manner.	93, 99, 104, 113, 129 131	
	Nuclear, heat and industry	Nuclear can contribute to decarbonise heating and industry, including with Small Modular Reactors (SMRs).	93, 129	
	Nuclear	Nuclear cannot be classified as clean, green or CO2-neutral.	145	
	Dismantling	The EIB should exclude support to nuclear energy and finance the dismantling of nuclear plants.	54,9, 62, 79	
	Level playing field	A level playing field for different technologies should be ensured, including nuclear.	37, 93, 99	

	Topic	Summary of comments	Contributions	EIB response
1.15	**Role of other specific technologies**			
	Portfolio	A portfolio of technologies and research, development and innovation (RDI) is needed to meet the goals of the Paris Agreement.	58, 115, 124, 128, 42, 55, 87, 104	Indeed, the EIB is mentioning this in Chapter 2, paragraph 5, and in Chapter 4, paragraphs 29 and 30, of the ELP. The EU Strategic Energy technology (SET)-Plan and associated implementation plans provide a useful reference framework.
	Manufacturing	Renewable manufacturing is key priority.	3	Even though the ELP is focusing on the energy sector, manufacturing capacity of renewables technologies in Europe is an increasing concern and the EIB is focusing on the initial manufacturing lines for innovative technologies in the EU (see Chapter 4, paragraph 32, of the ELP).
	Solar energy	Solar energy should have a higher priority.	7	Solar Photovoltaic (PV) projects are eligible for support by the EIB. In Annex II of the ELP, utility scale PV is deemed to be a mature technology. See the EIB's responses to Q8, and see Chapter 4 of the ELP.
	Storage	The role of storage need to be further emphasized. A portfolio of energy storage solutions is needed, including solutions for mid to long-term storage are needed (including heat-storage, synthetic fuels from power-to-x).	4, 52, 54, 64, 65, 72, 80, 87, 90, 96, 98, 103, 118, 120	The ELP notes that the increasing frequency of periods with either a surplus or deficiency of RES injections strengthens the case for storage technologies, including over the mid-to-long-term. Battery storage is a promising and important enabling technology, largely driven by progress in the transport sector (see Chapter 4, paragraphs 35 to 39, of the ELP), under new types of energy infrastructure.
	Carbon Capture and Storage (CCS)	CCS, blue hydrogen with CCS, bioenergy with CCS, Carbon Capture, Utilization and Storage (CCUS) can play an important role.	55, 73, 80, 83, 86, 90, 100, 103, 104, 107	CCS is part of the portfolio of low carbon technologies playing an important role in long-term decarbonisation scenarios, but progress has been slower than anticipated.
	False solution	CCS is a false solution – it should not be an alibi not to operate transformation.	18, 34, 43, 56, 59, 79, 137, 144, 147	
	E-fuels	E-fuels and power to X technologies are available.	59, 76, 87, 144	Biofuels have important potential and are eligible for the EIB's support as described in Annex II of the ELP. The role of "e-fuels" (synthetic fuels and hydrogen) is also expected to increase over time, to absorb excess RE from a very low base. However, the EIB recognises their cost and the uncertainty of their future potential and deployment.
	Biofuels	Biofuels should be given more consideration	33, 83, 86, 131	
	Biofuels and e-fuels are false solutions	Green gas or renewable gases are false solutions. Synthetic methane is expensive. These solutions should not be an alibi not to operate transformation.	34, 79, 90, 97, 98, 104, 131	

	Topic	Summary of comments	Contributions	EIB response
	Hydrogen and fuel cells	Hydrogen (blue hydrogen with CCS) and fuel cells are central to transition, hydrogen is a versatile energy carrier.	31, 55, 75, 80, 88, 96, 107, 131	See the EIB's responses to Q9, Q14 and Q15.
	Bioenergy	Bioenergy should be used by those industries with the greatest difficulties to decarbonise.	62, 83, 103	
	Combined Heat Power (CHP)	Efficient small scale and micro CHP and use of waste heat can play an important role. CHP can deliver fuel conversion efficiencies of 80%-90% and is a policy priority for the EU.	86, 87, 103, 105, 125, 127, 138	CHP, heating and cooling are important in a number of countries in particular in the EU and the EU eastern neighbourhood. These technologies are all supported by the EIB (see Chapter 4, paragraph 26, of the ELP)
	Heating and cooling	The importance of the heating and cooling sector including renewable heating, large scale heat pumps, district heating, is not emphasised enough.	35, 83, 86, 95, 103, 127	
	Hydropower	Hydropower is not sufficiently highlighted.	103	Hydropower is part of the portfolio of renewable technologies. While some opportunities exist in the EU, the hydro potential is high outside the EU. The EIB has recently published draft guidelines on hydropower development.
1.16	**Do not agree**			
		The description does not reflect the role of certain technologies such as gas and nuclear and is too focused on power.	106 131, 138, 140	The EIB takes note of these comments. See points 1.13 and 1.14.

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?

	Topic	Summary	Contributions	EIB response
2.1	**Generally agree**			
	Agreed	The EIB's current framework is broadly robust.	2, 12, 15, 42, 54, 70, 74, 94, 98, 100, 110, 112	The EIB takes note of these comments.
2.2	**Yes it is robust, but can be improved (see points 2.3 to 2.11)**			
2.3	**Economic assessment**			
	Carbon price	The EIB's carbon prices need to be increased in order to align with the temperature targets of the Paris Agreement.	82, 108	The carbon price used by the EIB for its economic appraisal has been addressed in Annex V of the ELP.
	Economic and social, air pollution	Focus more on wider social and environmental factors, not just CO2. Particular focus on local air pollutants.	50, 73	The EIB's economic assessment takes into account the air pollution externalities. Wider social dimensions are dealt with in the EIB's Environmental and Social Standards
	Flexibility	Contribution of flexible power plants need to be fully valued (ramping, fast start up, etc.), including a possible derogation from high efficiency cogeneration for plants with large flexibility benefits.	76, 104, 105.	The EIB will continue to support high efficiency cogeneration plants with large flexibility benefits (see Annex II of the ELP).
	Sector integration	Economic appraisal needs to account for wider dimensions of transformation. Greater focus on sector wide transition, including potential across electricity, heating and cooling sectors (rather than considering each separately).	38, 105	Projects with cross-sectoral dimensions are assessed taking into account all the different benefits that can be demonstrated. Sector integration and sector coupling is discussed in Q1.
2.4	**Emission Performance Standard (EPS) revision**			
	Adjust for flexibility	The EPS value and the exceptions to the EPS should be adjusted, including to allow for flexibility.	53, 87, 93, 100, 111	See the EIB's responses to Q9.

	Topic	Summary	Contributions	EIB response
2.5	**Targets**			
	Increase Climate Action targets	The Climate Action (CA) target for developing countries by 2020 should be increased above 35% post 2020.	17, 141	The ELP does not address the CA target, which is defined in the EIB's Climate Strategy, which is currently under review. The EIB does not adopt targets for energy subsectors; instead, the Corporate Operational Plan (COP) defines broader objectives.
	Increase RES and EE	The share of RES and EE should increase to 80%.	52	
	Increase RES, EE and power grids	The share of RES and EE and power grids should increase beyond 70%.	94	
2.6	**Adjustments to align with EU legal framework**			
	Benchmarks	The EIB benchmarks for bioenergy and cogeneration should reflect EU Directives.	33, 105	The EIB requires all projects to meet the relevant EU *acquis*, whilst the overall ELP – and other sector lending policies – ensure close alignment with wider EU policy.
	Effort Sharing Sectors	The EIB framework needs to account for Effort Sharing sectors, which drives decarbonisation in transport.	33	
	Pollution vs mitigation	Separate contribution to local air pollution from climate change mitigation.	55	
		Water management should be included in the ELP.	55	
2.7	**Intermediaries**			
	Extend to all	The ELP needs to be extended to cover all intermediaries.	8, 46	Chapter 1, paragraph 14, of the ELP clarifies that the ELP covers all EIB activities regardless of the channel of support. See also point 3.3.
	Greater incentives	When working through intermediaries, the EIB requirements need to provide greater incentives for Climate Action lending.	47	
2.8	**Other dimensions**			
	Security of supply	Security of supply should be Climate Action criteria	54	See point 1.5.
	Other priorities	The EIB criteria need to explicitly refer to all five dimensions of the Energy Union, including affordability and security of supply.	65, 71, 73, 86, 96, 106	

	Topic	Summary	Contributions	EIB response
	Innovative projects	Clear criteria required to focus on innovative projects.	52	EIB lending, as explained in Chapter 4, paragraph 29, of the ELP, supports innovation.
2.9	**Specific technologies**			
	Gas	The EIB should recognize that existing gas infrastructure is less costly than full electrification. Gas assessment should consider short and medium term benefits, including positive externalities and the wider benefits of gas on employment, air pollution, affordability, social justice, waste management and local community growth.	65, 69, 73, 81, 90, 96, 101, 106, 111, 112	The EIB is aware of this debate and some of the recent studies, which have examined the cost of different low carbon strategies. The Bank will draw from this material in assessing the economic case for investment in production of low-carbon gases.
	CCS, nuclear, hydrogen	The EIB should consider all solutions, including CCUS (also for SMR), hydrogen and nuclear.	90, 102, 103, 104, 107	See points 1.14 and 1.15. All low carbon technologies are eligible for EIB financing but need to demonstrate a positive economic case under the EIB's economic assessment.
	Technology neutrality	The EIB criteria should respect technological neutrality, respecting different energy mix across Member States. As a result, the EIB should not ''black list'' certain fuels or technologies.	54, 71, 73, 82, 104.	
2.10	**Geographical differences**			
	Member States	Greater focus is required on specific country features.	92, 107	See point 1.8.
	Resilience	Appraisal should consider the resilience of local energy systems.	105	The resilience to climate change is part of the EIB's Climate Strategy.
2.11	**Methodological considerations**			
	Taxonomy	The EIB should take into account EC work on developing a taxonomy for sustainable finance.	12	The work on taxonomy is ongoing at the time of drafting this report. The EIB will consider the implications of the taxonomy for Climate Action eligibility once adopted in law.
	Experts	On process: the EIB should consult external experts from the relevant sectors when drafting the more technical Chapters of the ELP.	105	The EIB relies on internal expertise and external consultants for specific needs of sectors or projects. The purpose of the public consultation process is also to draw on a wider expertise and all written contributions have been considered.

	Topic	Summary	Contributions	EIB response
	Transparency	The EIB should present public data on energy sector investments, related emissions and carbon footprint in a transparent and consistent way at both aggregate level and per sector, allowing comparability over time.	108	The relevant information will be included in the EIB annual reporting that covers these different points, as explained in Chapter 1, paragraph 15, of the ELP.
2.12	**No – it needs fundamental change (see points 2.13 to 2.17)**			
2.13	**Paris alignment**			
	Paris temperature target	The EIB needs to align with Paris temperature targets.	3, 6, 8, 9, 18, 34, 35, 43, 47, 56, 59, 62, 78, 82, 133	See point 1.2.
	1.5˚C	The EIB should align with 1.5˚C target / net zero emissions globally by 2050, updating EIB Climate Strategy.	5, 8, 18, 20, 34, 56, 59, 62, 79, 133, 141	
	EC 2050 net zero emission	The EIB should make a commitment to EC 2050 net zero target in EU.	34, 59	
	Don't rely on pledges	The EIB should not rely on current pledges to Paris Agreement, which are not sufficient to meet targets.	59	
	Alignment test	The EIB can introduce a specific ''alignment'' test based on year of decommissioning, alignment with national decarbonisation pathway and idle existing capacity. Particular attention is required on the alignment of supply side investments (DH, industry, etc.).	82	The EIB takes note of this comment.
2.14	**Stop fossil fuels**			
	Stop fossil fuel	The EIB should stop financing all fossil fuels, including through intermediaries.	6, 8, 17, 18, 19, 34, 35, 43, 47, 49, 56, 59, 62, 64, 68, 78, 82, 108, 126	Chapter 3, paragraphs 18 to 22, of the ELP state that the EIB will phase out support to energy infrastructure directly dependent on fossil fuels by the end of 2020. This includes gas infrastructure dedicated to natural gas, including networks, storage and LNG terminals.
	Stop gas	The EIB should stop financing gas.	3, 6, 8, 17, 47, 62	

	Topic	Summary	Contributions	EIB response
	Stop gas, with exceptions	The EIB should stop financing gas, except under special circumstances.	108	(see previous page)
	CCS	The EIB should not support CCS or renewable gas.	18	See EIB's responses to Q1 and Q9.
	Companies without decarbonisation plans	The EIB should stop financing companies without decarbonisation plans.	8, 17, 18, 35, 47, 56, 59, 62, 108	This is an issue that goes beyond the energy sector. The eligibilities defined in the ELP are relevant for investment projects. However when appraising investment projects the EIB is having a dialogue with promoters about their overall investment plans and their alignment with the EU decarbonisation objectives and the EC Action Plan on Financing Sustainable Growth, including with regard to the quantification and disclosure of climate-related risks.
	Companies investing in coal	The EIB should not lend to companies investing in coal (e.g. decarbonisation plan by 2020 showing phase out from coal by 2030 and from all fossil fuels by 2040; all companies receiving support from the EIB should disclose publically their coal exposure).	8, 34, 43, 56, 62, 108, 141	
	No ban on companies	The EIB should not introduce a ban on companies, but only work at the level of the project.	102	
2.15	**The EIB EPS is not an appropriate safeguard**			
	EPS and renewables	The EPS does not help explain whether RES is a viable alternative.	3	A consequence of the decision not to support energy infrastructure directly dependent on fossil fuels is that the EIB no longer needs to impose an EPS for conventional power generation. See the EIB's responses to Q9. An EPS of 250 $kgCO_2/kWh_e$ is however maintained for RES projects (e.g. Hydropower, geothermal) and highly efficient gas-fired CHP (see Annex II of the ELP).
	Low EPS	It should be so low that all support to fossil fuel power generation is stopped.	18, 34	
	Timeframe	An EPS timepath out to 2050 should be announced	82	
	Extension of EPS	The EPS concept should be extended outside the EU to cover all energy assets.	82	
	EPS and ETS	The EPS is not, as a matter of principle, compatible with ETS. Overlaying ETS with additional instruments may create perverse incentives, including not supporting thermal plants required for RES backup.	102	
	EPS in heat	The EPS should cover heat as well as power.	105, 141	Given the decision to stop supporting heat production from fossil fuels, there is no need for a heat-equivalent EPS safeguard.

	Topic	Summary	Contributions	EIB response
2.16	**Specific considerations about technologies**			
	”Energy efficiency first” principle	The EIB should integrate the ‘’energy efficiency first’’ principle across its operations i.e. before financing new infrastructure, including asking clients to demonstrate how this has been factored into project decision making and/or more finance for EE.	18, 34, 38, 47, 58, 62, 82, 109, 141	See point 1.11.
	CHP	The EIB should prioritise CHP over heat-only boilers, in line with Article 14 of the Energy Efficiency Directive (EED).	105	See point 2.15.
	Nuclear	The EIB should recognize clearly the value of nuclear power.	37	See point 1.14.
2.17	**Methodological consideration to improve the EIB’s framework**			
	Baseline	Economic appraisal methodology has fundamental flaws. Baseline needs to be best practice rather than Business as Usual (BAU).	47	The EIB takes note of this comment. The methodological issues around the economics of energy projects is reviewed periodically. As set out in the EIB’s economic guide, there can be confusion in practice between comparing several different project options against a single ‘’do-nothing’’ baseline versus comparing the actual project with a best practice baseline. The EIB adopts a common approach to ensure consistency in comparing across projects.
	GHG	Indirect/Scope 3 GHG emissions should be included.	47, 51, 64, 67, 141	The EIB carbon footprinting methodology, revised in December 2018, already allows for the inclusion of scope 3 emissions in certain project types. Further work is being undertaken together with other IFIs to explore approaches for indirect emissions.
	Carbon footprinting	Carbon footprinting methodology should update global warming potential from methane.	47, 141	The EIB carbon footprinting methodology uses the latest GWPs provided by the IPCC (AR5), including for CH_4. The values used are the 100-year GWP, not inclusive of climate-carbon feedbacks.

	Topic	Summary	Contributions	EIB response
	Stranded assets	The EIB approach should avoid creating stranded assets.	48, 75, 108	The EIB will phase out support to all fossil fuel projects.
	Gas lifetime	Appraisal of gas transmission lines should be 50-60 years and not an economic life of 15 years.	56	
	Long-term	Project assessment should consider a time horizon out to 2050.	59	
	Scenario	The EIB should not rely on IEA SDS.	62	See point 1.4.
	Assessment	Project level assessment will not ensure the structural transformation of the sector.	61	The EIB is assessing projects that it finances taking into account sectoral developments.
	Citizens and energy communities	Assessment does not recognize the role of citizen and community led projects.	68	The EIB takes note of this comment. See point 1.7.

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?

	Topic	Summary of comments	Contributions	EIB response
3.1	**High level principles**			
	Climate leadership	The EIB should be a climate leader, prioritise on activities that lead to 1.5˚C target, exclude all fossil fuels, and send strong investment signals.	2, 12, 18, 41, 47, 56, 59, 62, 64, 99, 107, 108, 121, 123, 125, 134, 137, 141, 144, 147	The EIB announced that all of its activities would be Paris aligned by 2020. The ELP is reflecting this commitment, contributing to reinforce the role of the EIB in helping to support long-term energy investment. The focus on renewables, EE and grids also reinforces the climate leadership of the EIB outside EU. See the EIB's responses to Q1 and Q16.
	Other EU policies	The EIB should continue to support projects that are aligned with all EU policies, not just climate (security of supply, market integration, environment, affordability…).	65, 73, 90, 95, 97, 105, 118, 127,133	The EIB will focus on meeting long-term investment challenges associated with EU 2030 targets. In addition, Chapter 3, paragraph 22, of the ELP states that the EIB will continue to support security of supply albeit no longer through fossil fuels. The EIB conducts thorough economic analysis to make sure that the projects the EIB finances constitute a sound contribution to society at large.
	Cost-effective energy transition	The EIB should support projects that can achieve the energy transition in the most cost effective manner.	52, 55, 73, 74, 76, 81, 95, 105, 115, 118, 128	
	NECPs	The EIB should support projects within the framework of NECPs.	47, 96, 133, 141	The ELP mentions that the EIB will engage with Member States on the basis of NECPs (see Chapter 3, paragraph 17, of the ELP).
	Energy efficiency first	The EIB should prioritise integrated EE investments throughout the energy value chain (production, consumption, storage…) over investments that increase fossil consumption. This includes prioritising investments that maximise the efficient use of limited resources (such as biomass).	17, 34, 38, 43, 47, 56, 59, 67, 75, 94, 105, 109, 116, 125, 133, 137, 141, 144, 147	See point 1.11. The prioritisation over investments that increase fossil fuel consumption is partially reflected in the decision to no longer support energy infrastructure directly dependent on fossil fuels. Whilst the EIB rarely can choose between competing projects, projects with a more efficient use of limited resources will – *ceteris paribus* – have a higher economic assessment (reflected in the Pillar 2 scoring of the project).

	Topic	Summary of comments	Contributions	EIB response
	Stranded assets	The EIB should limit finance to activities that have a high risk of becoming stranded assets in a successful energy transition.	47	See point 2.17.
	Technology neutrality	The EIB support should be technology neutral.	55, 73, 80, 95, 103,115, 118, 128, 133	See points 1.6
	Gender	The EIB should integrate gender analysis in all its investments, and support projects that deliver gender equality.	11	See point 11.3.
3.2	**Additionality – financial**			
	Longer tenors	The EIB should offer longer loan tenors to support long-term projects and lower energy costs.	4, 13, 145	The EIB offers long tenors in line with the economic life of the assets financed. Financing projects with a long-term perspective is an area where the EIB can bring additionality in the energy sector.
	De-risking	The EIB should develop products to support smaller (<25 MEUR) and more high-risk operations (innovative technologies, new business models, joint or community projects, renovation of buildings, merchant risk for RES without subsidies, riskier countries…) at more attractive conditions than commercial banks.	4, 13, 14, 35, 41, 67, 70, 92, 94, 99, 121, 124, 128	Support of new market based investments is one of the key areas where the EIB can have a high additionality in the energy sector (see Chapter 4, paragraphs 38 and 39, of the ELP). The EIB is already supporting smaller high-risk operations under existing mandates (InnovFin, EFSI) and is seeking to continue to do so in cooperation with the EC in the framework of new mandates such as InvestEU.
	Catalysing private finance and lowering cost of capital	The EIB should prioritise sectors and regions where it can have high positive impact on attracting private finance and overall cost of capital.	70, 71, 82, 92, 99, 121, 133, 139, 145	Thanks to its triple A rating, the EIB is able to propose financing at attractive rates and to propose long tenors across sectors and regions. Usually the EIB can only finance up to 50% of the total project cost, the remainder being financed through private or public funds on a case-by-case basis. In many cases the provision of finance by the EIB acts as a catalyser for private finance.
	Project finance	The EIB should be more flexible in project finance operations.	55	

	Topic	Summary of comments	Contributions	EIB response
	Lower cost financing	The EIB should offer financing advantages to projects that are clearly aligned with 1.5˚C targets.	47, 139	The same financial terms are applicable across sectors. As the EU bank, the EIB already announced that all its investments would be Paris aligned by the end of 2020.
	Refinancing past COD	The EIB should refinance projects past Commercial Operation Date (COD) to lower their costs and thereby contribute to the growth of the sector.	67, 128	The EIB is generally financing new infrastructure.
	No refinancing past COD	The EIB should avoid financing investments that are past COD to maximise crowding in of private investors.	121	
	Early phase equity during development	The EIB should take early-phase equity position in companies with a promising project pipeline, and exiting when the portfolio is operational.	121	The EIF can support enterprises in earlier stages of growth. Through mandates, providing guarantee schemes, EIB can participate in early stage equity or equity type investment in project/companies directly or indirectly.
	Present products	The EIB should organize dedicated sessions with clients/promoters to present its products and get feedbacks on how to improve them.	90	See point 4.
	More technical assistance (TA) for EE	The EIB should increase and upscale its TA for EE, such as ELENA.	116, 134	The EIB takes note of this comment. The EIB intends to continue to grow its EE TA programmes (see Chapter 4, paragraphs 8 to 12, of the ELP).
3.3	**Intermediated financing**			
	Intermediated lending should have additionality	The EIB should prioritise intermediated and on-lending that is linked with capacity building, and phase it out in markets where liquidity is no longer a market barrier.	121	Chapter 1, paragraph 13, of the ELP states that the Policy applies regardless of the channel of support, including intermediated operations via commercial banks and funds. TA is available to support certain intermediaries depending on the need to build capacity.
	Utility-intermediated operations	The EIB should set up utility-intermediated operations with ex-post EIB appraisal processes, in order to speed things up.	75	
	Apply sustainability standards	The EIB should ensure its standards and sustainability criteria are implemented by intermediaries.	47, 137	
	No fossil through intermediaries	The EIB should not finance fossil fuels through intermediaries.	59, 137	

	Topic	Summary of comments	Contributions	EIB response
3.4	**Geographical focus**			
	Cohesion regions and Eastern Europe	Target RES & EE investments in regions where RES and EE deployment are least developed today, such as Cohesion regions, Eastern Europe, Western Balkans, …	2, 10, 12, 15, 41, 47, 69, 70, 71, 113, 125, 126, 132, 134	The EIB will establish an ETP to provide targeted support to lower income Member States in the form of higher financing and targeted advisory services (see Chapter 3, paragraphs 23 and 25, of the ELP).
	WACC in EU MS	Weighted average cost of capital (WACC) varies significantly across EU Member States (e.g. range between 3.5%-12% provided for onshore projects)	92	
	Latin America	The EIB should target projects in Latin America, especially high population countries such as Brazil or Mexico.	75	As set out in the ELP, the priorities of the EIB are the same inside and outside the EU (see Chapter 3, paragraphs 26 to 29). Outside the EU, the priorities are EE, RE and electricity grids. One key difference is the focus on energy access in some regions, most notably Sub-Saharan Africa. Note that the EIB activity outside the EU is driven by lending mandates. At the time of drafting this report, the (EU) Neighbourhood, Development and International Cooperation Instrument (NDICI) is still under discussion.
	Islands and isolated systems	The EIB should support hybrid RES/storage systems and interconnections for island systems.	4, 126	
	Developing countries	The EIB should prioritise RES projects in developing countries outside EU, including support to governments in the development of appropriate policy & regulatory frameworks.	3, 76, 123, 145	
	Large RE projects outside the EU	The EIB should prioritise large scale mature RES generation projects in parts of the world that have very good RES resources (deserts - solar, coastal – wind, …), especially in combination with the linked production of green hydrogen.	54	
	Use of local resources	Outside EU, projects should focus on technologies that maximise the use of locally available or produced fossil or RES resources.	76	Local resources are reflected in the technical and economic appraisal of projects, to the extent this is in line with the EIB Guide to Procurement.
	Rural areas	The EIB should prioritise investments in rural areas.	68	The EIB takes note of this comment. The EU's rural development policy is not the primary focus of the ELP.
3.5	**Employment and community**			
	Employment creation	The EIB should support decarbonisation projects that result in the creation of local jobs.	97	Jobs created by projects are assessed and already included in the appraisal and reporting of projects.

	Topic	Summary of comments	Contributions	EIB response
	Coal mining regions	The EIB should support projects that maintain or create employment in regions most affected my decarbonisation, such as coal mining regions.	12, 64	See Chapter3, paragraphs 23 to 25, of the ELP.
	Community driven projects	The EIB should support RES, EE and smart grid projects which are community driven, including Local Energy Communities.	17, 18, 34, 38, 47, 56, 59, 62, 68, 115, 119, 122, 123, 128, 134, 144, 145, 147	Increasing the role of energy communities is an important trend of the energy transformation (see point 1.7). The EIB can lend to energy communities, either directly or via intermediaries, and will seek to support lending and advising to develop such initiatives (see Chapter 4, paragraph 36, and Annex II of the ELP).
3.6	**RES**			
	Mature RES	The EIB should continue to support investments in Best Available Technologies mature RES projects.	1, 2, 3, 7, 9, 47,71, 75, 102	All RE projects are eligible and the EIB will support their deployment to meet the ambitious EU 2030 targets, including mature RES and repowering of existing sites. This includes mature technologies - the ELP categorizes utility-scale solar PV as a mature technology - and technologies at an early stage of deployment. Mature technologies are increasingly being integrated into markets, or even built without government support and these new developments are supported by the EIB (see Chapter 4, paragraphs 19 to 23, of the ELP). As explained in Annex II of the ELP, the EIB will also support technologies at an early stage of deployment, deeming them to provide a high degree of added value.
	Less mature RES	The EIB should prioritise less mature RES (floating offshore wind, CSP…)	67, 97, 112, 126, 128	
	Prioritise RES repowering	The EIB should prioritise brownfield RES repowering projects.	8, 115, 126, 128	
	Hydropower	The EIB should consider the environmental and social impacts of mature RES projects, especially hydro, and potentially exclude large dams.	47, 79, 141, 147	See point 1.15. Hydropower is part of the portfolio of renewable technologies. While some opportunities exist in the EU, the hydropower potential is high outside the EU. The EIB has recently published draft guidelines on hydropower development.
	Distributed RES	The EIB should prioritise support for small-scale, distributed and community-driven RES projects.	17, 18, 34, 38, 47, 56, 59, 62, 79, 90, 119, 122, 132, 145, 147	See points 1.7 and 3.3.

	Topic	Summary of comments	Contributions	EIB response
	Bioenergy, biofuels & biogas	The EIB should increase support to bioenergy, biofuels and biogas projects.	33, 58, 76, 79, 83, 87, 95, 98, 101, 102, 120	Bioenergy, including production of biofuels and use of biomass are eligible for EIB financing, if they meet the EIB's technical and economic criteria provided in Annex II of the ELP.
	Bioenergy projects	The EIB should not finance bioenergy projects involving energy crops, and generally consider lifecycle environmental benefits for bioenergy projects.	79, 141, 147	
	No power-only biomass, coal/biomass co-firing or coal to biomass conversion	The EIB should not finance power-only biomass plants, co-firing of coal and biomass or coal to biomass conversion.	79	Annex II of the ELP sets out the EIB's requirements with respect to biomass for power generation and heat production. In particular, this flags the experience of the EIB that power-only projects often do not meet the EIB's economic test.
	Flexible gas-fired generation in support of more RES	The EIB should support flexible gas-fired generation, such as gas engines, to complement and support the deep penetration of intermittent RES.	76, 81, 87, 95, 117, 120, 121	The EIB understands the rationale for this type of investment. However, in general, the EIB will focus on other dimensions of flexibility (demand response, batteries, interconnection, etc). However, the ELP does provide an exception to support highly efficient gas-fired combined heat and power generation (see Annex II). Retrofitting for hydrogen combustion would be eligible for EIB support.
	Retrofitting of gas plant for hydrogen combustion	The EIB should support the retrofitting of gas power plants for hydrogen combustion.	88	
	Support for nuclear	The EIB should support nuclear energy as a low carbon source of reliable baseload generation to supplement intermittent RES.	37, 49, 93, 129, 131, 142	See point 1.14. Nuclear remains eligible and the EIB's eligibility conditions to support nuclear power generation and fuel cycle projects remain unchanged compared to the 2013 Energy Lending Criteria (see Chapter 4, paragraph 25, of the ELP).
	No support for nuclear	The EIB should stop all support to nuclear energy, (including research reactors, safety upgrades, fusion and small modular reactors).	62, 79, 147	
3.7	**Energy Efficiency and heating**			
	Continued support for EE	Most contributions supported a continued role for EIB in the financing of EE. No submissions called for a reduction of EIB support to EE.	All	The EIB takes note of the strong support to EE, which is considered as a high priority in the ELP.

	Topic	Summary of comments	Contributions	EIB response
	nZEB buildings	The EIB should support the further development of new nZEB buildings.	102, 109, 115, 128	For a building to be considered for EIB financing purely on the grounds of EE, a very high performance should be reached. See point 5.3. See also Chapter 4, paragraphs 13 to 15, of the ELP. see..
	Deep building renovation	The EIB should support the deep renovation of existing buildings, including developing new products to de-risk such projects.	35, 41, 47, 57, 102, 115, 116, 127, 128, 132, 139	The EIB supports building rehabilitation and is creating a new initiative in that perspective (see Chapter 4, paragraph 11 of the ELP).
	Municipal and regional authorities	The EIB should increase its support to municipalities and regional authorities for EE and other decarbonisation projects, including smaller scale projects (< 25 MEUR).	35, 99, 100, 110, 123	See points 1.7 and 3.6.
	New business models, ESCOs, EPCs, PPPs	The EIB should develop new products to support "energy as a service" technologies and business models to deliver EE, including Energy Service Companies (ESCOs), Energy Performance Contracts (EPCs) and Public Private Partnerships (PPPs) for public buildings.	2, 5, 75,99, 100, 102, 109, 110, 115, 124, 127, 128	The EIB recognizes the strong contribution that can come from ESCOs, energy contracting and energy performance contracts. These aspects are supported by the Energy Performance of Buildings Directive (EPBD). The EIB actively supports this segment and is open to consider new financing proposals. See Annex I of the ELP for more information on ESCOs.
	Renewable heating & heat pumps	The EIB should increase support to renewable heating and cooling projects, including heat pumps.	35, 85, 103, 105, 121, 125, 126, 127, 132, 134, 141, 145	The EIB takes note of these comments on specific technologies. See the EIB's responses to Q8, Q10 and Q12.
	EE retrofits of existing power, heat & industry	The EIB should support projects that increase efficiency or repower existing power, heat and industrial plants as lower cost alternatives to greenfield plants.	55, 99, 105, 111, 128	
	Cogeneration	The EIB should support cogeneration as a preferable, more efficient alternative to separate generation of heat and power where possible, including for RES fuels.	83, 103, 105, 118, 125, 138	

	Topic	Summary of comments	Contributions	EIB response
	Flexible CHP	The EIB should support more flexible CHP that provides system security benefits, even if it is less efficient.	105, 120	(see previous page)
	Support for waste-to-energy projects	The EIB should support waste-to-energy projects that are in line with circular economy considerations.	10, 70, 127	
	No support for waste-to-energy	The EIB should no longer support the burning of waste in any form.	134	
	District heating	The EIB should increase its financing of district heating projects.	10, 84, 85, 103, 125, 127, 134, 138	
	Heat and cold storage	The EIB should increase its support to heat and cold storage technologies.	87, 103, 120, 121, 134	
	Waste heat recovery	The EIB should support waste heat recovery and heat utilisation projects.	84, 103, 111, 125, 127	
	High up front Capex investments	The EIB should prioritise smaller scale energy efficiency investments with high up-front Capex, such as heat pumps, EVs, …	75, 115, 145	The ELP provides a description of the causes of the persistent underinvestment in EE (see Chapter 4, paragraphs 7 and 8, of the ELP). EE can lower energy bills and mitigate energy poverty. EIB will finance EE for social housing and in lower-income member states.
	Low income households	The EIB should support EE investments for low income and vulnerable households.	10	
3.8	**Grids and storage**			
	Interconnections and Projects of Common Interest (PCIs)	The EIB should support interconnection projects, especially PCIs.	2, 4, 51, 97, 101 106, 110, 126, 132, 142	The EIB is actively supporting investments in electricity grid infrastructure and storage, from European PCIs to offgrid solutions outside the EU, as key enablers of the energy transformation. See Chapter 3, paragraph 13 and Chapter 4, paragraphs 40 to 45, of the ELP.
	Critical transmission infrastructure	The EIB should prioritise national critical transmission infrastructure on the same basis as PCIs.	54, 110, 142	
	Transmission and distribution	The EIB should prioritise grid infrastructure to support RES integration (and the energy transition in general), including offshore grids.	54, 74, 75, 76, 110, 124, 126, 134 141, 142	

	Topic	Summary of comments	Contributions	EIB response
	to support RES integration			(see previous page)
	Off-grid/microgrid	The EIB should support the development of off-grid and microgrid solutions where feasible, especially in developing country context.	2, 110, 134	
	Smart Grids, Smart Buildings and Demand Side Reduction	The EIB should support smart grids and buildings to support the further integration of RES, EE and Demand Side Reduction.	62, 75, 94, 103, 110, 116, 124, 126, 128, 132, 134, 141, 142	
	Storage	The EIB should support all forms of storage, including less proven and innovative forms of storage.	2, 4, 14, 52, 72, 74, 76, 87, 88, 102, 110, 131, 134, 141, 145	
	ICT Cybersecurity	The EIB should support grid Information and Communication Technology (ICT) investments for cybersecurity.	52, 124	Cybersecurity is an increasing concern and dimension of energy security (see Chapter 2, paragraph 9, of the ELP). The EIB approach to cybersecurity applies across sectors.
3.9	**Gas and fossil fuels**			
	Gas infrastructure & low carbon gas	The EIB should continue to support gas infrastructure with a view that gas will remain part of the energy mix, and/or that the infrastructure will be used by low carbon alternatives to natural gas in future (biomethane, hydrogen…), as a lower cost alternative to full electrification.	54, 69, 70, 71, 76, 81, 87, 95, 98, 101, 106, 112, 114, 117, 118, 121, 136, 140	See point 2.14. The ELP states that the EIB will phase out lending to fossil-fuel energy projects. As set out in Chapter 4, paragraph 45, of the ELP, the EIB will support projects to connect networks to new sources of production of low carbon gas or adapt existing infrastructure to high-blend of low carbon gases. See also the EIB's responses to Q14.
	Gas networks leakage and own consumption	The EIB should support efforts to reduce methane leakage and own consumption from natural gas networks.	90, 140	
	Gas as replacement for coal- or oil	The EIB should support natural gas as a cost effective and high impact short-term form of decarbonisation if it replaces coal or oil.	70, 73, 81, 112	

	Topic	Summary of comments	Contributions	EIB response
	Conversion of gas infrastructure to hydrogen	The EIB should support the conversion of gas infrastructure for use with low carbon sources.	105, 136, 140	(see previous page)
	Gas for security of Supply	The EIB should support gas investments for security of supply and system reliability.	40, 65, 90, 112, 117, 118	
	No gas for security of Supply	The EIB should not support any fossil investments for security of supply and system reliability, as it is not Paris compatible.	16, 17, 134	
	Financing of gas & LNG for transport	The EIB should continue to support gas infrastructure that supports the use of natural gas in transport as an alternative to oil.	65, 90, 102	See point 14.14. The ELP does not cover mobility projects. Under the current Transport Lending Policy, alternative fuels are supported by the EIB.
	No financing of gas & LNG for transport	Gas as a fuel for transport is only marginally better than oil.	141	
	Condensing gas boilers	The EIB should continue to support gas-fired condensing boilers and fuel cells as an efficient source of heat.	95, 140	As set out in Annex II of the ELP, the EIB will continue to support efficient gas boilers included in building renovation programmes.
	Green hydrogen	The EIB should support the development of green hydrogen production through electrolysis from RES, for use in power, transport and industry.	54, 55, 65, 88, 95, 98, 121, 131, 136, 140	A portfolio of technologies is needed to meet the long-term goals of the energy transformation and reach net zero emissions in Europe. The EIB will support technologies and projects aligned with the SET-Plan (see Chapter 4, paragraph 30 of the ELP).
	Fuel cells	The EIB should support fuel cell technology.	88, 95, 140	
	Sector coupling, power-to-gas, power-to-x	The EIB should support power-to-gas and power-to-x technologies as a way to reduce the cost of decarbonisation.	52, 65, 69, 70, 72, 76, 81, 87, 90, 111, 112,114, 120, 121, 125, 136, 140	
	CCUS	The EIB should increase its promotion and support of CCUS projects, including blue hydrogen production, and bioenergy with CCS.	55, 80, 83, 90, 103, 106, 136	See point 1.15.

	Topic	Summary of comments	Contributions	EIB response
	CCS	The EIB should only support fossil fuel projects if they are abated with CCUS or similar technologies.	80	(see previous page)
	Coal plants EE and Security of supply investments	The EIB should relax its rules on lending to coal-related projects which add to EE and energy security.	138	See point 2.14.
	Clean coal	The EIB should support clean coal.	138	CCS and other low carbon technologies are supported by the EIB.
	Decommission-ing of existing coal and nuclear sites	The EIB should support the decommissioning of existing large generation sites, such as coal or nuclear, including nuclear waste storage.	9, 75, 145	The EIB takes note of the comment. In the case of nuclear, decommissioning is eligible for the EIB's financing (see Annex II of the ELP).
3.10	**Support to EU companies**			
	RDI in EU	The EIB should prioritise RDI that supports the energy transition, to support a competitive advantage for Europe. This includes the development of new technologies, as well as demonstration and upscaling projects.	42, 52, 55, 58, 75, 92, 94, 97, 110, 112, 128, 140	Innovative technologies are given a high priority and the EIB activity is closely aligned with the SET-Plan (See Chapter 4, paragraph 30, of the ELP) in Europe.
	Manufacturing	The EIB should support EU manufacturing of RES and EE	93, 97	As mentioned in Chapter 4, paragraph 34, of the ELP, the EIB will support initial full-scale commercial production lines related to breakthrough technologies.
	EU small national companies	Support smaller national companies that are uncompetitive due to their small size.	40	The EIB supports SMEs in general, not specifically for energy but including energy SMEs.

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

	Topic	Summary of comments	Contributions	EIB response
4.1	**Security of supply and social acceptance remain important during energy transformation process**			
	Social acceptance objectives	Member States and energy companies have to meet other objectives than decarbonisation, in order to ensure a security of supply, and to maintain a social acceptance.	2, 5, 19, 34, 40, 43, 52, 55, 59, 60, 67, 70, 92, 93, 96, 101,124, 148	The transformation of energy systems cannot happen without the support of citizens and communities. Social acceptance is mentioned in Chapter 2, paragraph, 8 of the ELP. Stakeholder engagement and consultation is one of the cross-cutting EIB Environmental and Social Standards used during project due diligence. While EIB financing can contribute to reducing the cost of capital of capital intensive projects needed, this is not sufficient. Lower cost of capital needs to be passed through final consumers to have an effect. The project being financed needs to be efficient. The EIB created an ETP to target support in regions relying on coal in some member states (see point 4.3).
	Affordability	The EIB should ensure affordable financing for final consumers.	2, 30, 71, 73, 75, 90, 92, 93, 94, 103, 105, 106, 109, 110, 112, 114, 118	
	Flexibility and resource adequacy	Long-term energy transformation necessitates flexibility and requires strong electricity grids, fuels, technologies such as nuclear, and CCS. In the Electricity Market Regulation, the gas-fired capacity is recognised as important for maintaining resource adequacy.	48, 54, 71, 73, 80, 81, 82, 87, 90, 96, 103, 105, 112, 115, 118	See point 1.10.
	Sector coupling	Sector coupling and storage can reduce the cost of decarbonisation while increasing system reliability and adequacy.	55, 81, 87, 90, 96, 103, 107	
	CCS, low carbon gases	Gas, CCS and green or renewable gases (e.g. hydrogen) do not have a role to play, and do not merit the EIB support.	18, 19, 34, 35, 55, 56, 59, 79, 141, 144, 147	See points 1.13 and 1.15.
	Companies	Financing should be conditional on company-level decarbonisation plans and compatibility with the	34	See point 2.14.

	Topic	Summary of comments	Contributions	EIB response
		Paris Agreement, and not supportive of projects that are socially controversial, harmful to public health or the environment.		
	Resilience	The EIB should promote projects that foster local resilient energy systems.	2, 6, 27, 35, 48, 52, 105, 124	The resilience to climate change is part of the EIB's Climate Strategy.
4.2	**Different investment needs in different countries and regions (starting points differ)**			
	Country specific needs	Employment, European supply chain and differences in the infrastructure needs to reach the climate targets in specific countries need to be considered when defining the ELP.	4, 15, 40, 41, 54, 55, 56, 58, 60, 64, 67, 70, 71, 75, 90, 92, 93, 94, 95, 106, 107, 109, 115, 117, 118, 124, 131, 136, 141, 144, 147, 148	The EIB is seeking to strengthen its dialogue with Member States on the basis of the final NECPs, in order to identify how its lending activity can better support country specific needs (see Chapter 3, paragraphs 16 and 17, of the ELP). The impacts on local jobs and local value chain are also considered during project appraisal, to the extent this is in line with the EIB's Guide to Procurement. The EIB will establish an Energy Transition Package (ETP) to provide support to these countries and regions (see point 1.8 and Chapter 3, paragraph 23 to 25, of the ELP.)
	Population and local jobs	An integrated approach to the transformation is needed, by engaging with the local population, thus unlocking the indigenous potential of the concerned region, and focus on projects that are cost effective and contribute to local economic development and share value for local stakeholders.	2, 18, 34, 35, 47, 59, 90, 113	
	Geographic interventions	The EIB should target all geographical areas and populations (avoid concentration of EFSI lending to few countries).	4, 12, 18, 34, 35, 38, 42, 47, 59, 71, 92, 111, 113	
	CEE countries	The EIB should have better local presence in CEE countries that have great EE potential as well as bigger regional disparities.	12, 18, 35, 71, 113, 141	
	Procurement	The EIB should ensure better procurement procedures in countries outside EU.	46	The EIB's Guide to Procurement applies to all countries in and outside the EU (see Executive Summary, paragraph 12, and Annexes of the ELP).

	Topic	Summary of comments	Contributions	EIB response
	Electric mobility	The EIB should support the deployment of electric mobility charging and smart charging infrastructure.	75	The ELP is pointing out electromobility as a priority area for the EIB's financing (see Chapter 4, paragraph 43, of the ELP).
	Development strategies outside EU	The EIB should consider the National development strategies in developing countries.	38, 47	The EU aims at playing a global leading role in the fight against climate change, which requires massive investment needs outside EU. The EIB's ELP outside the EU is driven by lending mandates as well as the EU external action on energy and climate. Development objectives are part of the UN SDGs (in particular SDG 7 for Energy).
	Reduce lending outside the EU	Energy lending should be shifted away from energy projects outside the EU and focus on projects located in EU Member states.	71	
4.3	**Coal intensive countries and regions**			
	Just transition	A just transition requires new jobs creation and economic alternatives to coal mining as well as reducing air pollution.	4, 6, 12, 15, 18, 35, 40, 42, 47, 48, 52, 64, 65, 71, 90, 123, 126, 131, 134, 141	Regarding local impact, the EIB will create an ETP, a programme designed to support the impact of the transformation in some Member States and regions. The ETP includes a financing rate of up to 75% in these regions for EE and RE, leveraging resources from the ETS Modernisation Fund and targeted advisory services. See the EIB's responses to Q1. See Chapter 3, paragraphs 22 to 25 of the ELP.
	Energy communities in transition regions	Renewable community energy can provide an alternative for transition regions, combined with renovating buildings.	4, 6, 18, 27, 34, 38, 47, 62, 122, 124, 128	
	Tailor-made programme	The EIB should develop tailor made programmes and innovative financial instruments and loan products for the decommissioning and redevelopment of important former power generation sites (coal plants or nuclear reactors), involving local communities and industrial partners. TA should target re-skilling or up-skilling of workers in communities transitioning away from fossil fuels.	6, 12, 40, 46, 65, 68, 71, 90, 100	
	Modernisation Fund	Design of the Modernisation Fund and Innovation Fund is important and the EIB's role is expected to grow in the period 2021-2027 and beyond.	12, 40, 41	

	Topic	Summary of comments	Contributions	EIB response
	R&D	Support to Research and Development (R&D) is crucial to ensure affordability while also supporting competitiveness of EU economy.	52, 124	(see previous page)
4.4	**Energy poverty and social impact**			
	Social aspects	The social and gender dimension of the energy transition is not limited to developing or emerging economies. The energy transition needs to factor in regional and population developments. EIB products should consider social aspects and provide solutions to the poorer regions and most vulnerable households.	2, 6, 11, 12, 18, 41, 42, 43, 48, 51, 56, 65, 67, 71, 75, 79, 92, 94, 105, 106, 116, 123, 126, 128, 131, 133, 134	Energy poverty is recognised as an important issue in the ELP. The consultation document mentioned that 50 million EU energy consumers are affected. The EIB will endeavour to assist those exposed to structural changes under the energy transformation to maintain solidarity and social justice. The EIB will therefore establish an ETP to support lower-income Member States and coal regions. Tackling energy poverty and inequalities between countries or regions (islands) and the growing urban/rural divide is a broader issue than the question of EIB lending to the energy sector, and are primarily addressed by EU and Member State policies. New interconnections with islands can also be financed, as well as the development of biofuels and biomethane, under the conditions defined in Annex II of the ELP regarding costs and sustainability.
	Islands	Interconnection of islands should be considered as a possible mean to reduce regional disparities.	38, 51, 92	
	Rural areas	The EIB should also prioritise investing in rural areas (e.g. biomethane projects).	2, 38, 42, 51, 56, 62	
4.5	**EE, buildings rehabilitation and green mortgages**			
	“Energy efficiency first” principle	The EIB should adapt the “energy efficiency first” principle to innovative financing, including PPP, ESCO and TA, to support energy efficiency.	10, 34, 35, 38, 41, 42, 47, 63, 78, 84, 95, 96, 99, 115, 116, 124, 131, 134, 141	See point 1.11, and the EIB’s responses to Q5.
	Renewable heating	The EIB should finance renewable heating measures in buildings (existing or new), including regional programmes.	10, 47, 95, 141	The EIB takes note of this comment.

	Topic	Summary of comments	Contributions	EIB response
	Mortgage	The EIB should support the financing and refinancing of innovative third party mortgage financiers and energy service companies that support individual building owners.	51	The ELP is focusing on building rehabilitation, which can reduce energy bills thanks to better insulation of buildings. The ELP will establish a European Initiative for Building Renovation (EIB-R) to support aggregation of rehabilitation projects, to support new sources of finance through unlocking new market in EE mortgage and dedicated technical assistance under ELENA and Smart Finance for Smart Buildings (SFSB). See Chapter 4, points 7 to 12, of the ELP.
	Building refurbishment	The EIB should prioritise refurbishment of buildings where less well-off households live.	35, 78, 99, 141	
	ELENA	The ELENA threshold of EUR 25 million should be lowered significantly in order to allow projects in medium-sized cities to be financed. The ELENA application process should be simplified. Waste-to-Energy (incineration of non-recyclable waste with energy recovery) is an example of district heating sector coupling.	35	
	New buildings	The support for new buildings should focus on climate shell investments to reduce the energy needs in buildings that go beyond nZEB requirements after 2021.	47, 84, 141	New buildings with a public policy goal can be financed by the EIB (residential, urban regeneration, schools, hospitals, social housing). However, to be considered under EE, new buildings must go beyond national mandatory standards after 2021, including for social housing (see Chapter 4, paragraphs 13 to 15, of the ELP.)
4.6	**Other topics**			
	Taxonomy	The EIB should incorporate the EU Sustainable Finance Taxonomy to disclose the full impact of investments.	12, 60, 75, 94	See point 2.11. The work on taxonomy is ongoing at the time of drafting this report. The EIB will consider the implications of the taxonomy for Climate Action eligibility once adopted in law.

Q5: In the case of new buildings, do you have an opinion on the proposed approach to support only buildings that go beyond the mandatory nZEB standard after 2021? What level of ambition should the Bank focus upon, inside and outside the EU?

	Topic	Summary of comments	Contributions	EIB response
5.1	**Importance of EE in buildings**			
	Buildings	EE is particularly important in buildings and the EIB should support new construction as well as refurbishment.	54, 67, 99,128, 131	The EIB recognizes the importance of supporting EE improvements in the existing building stock (see point 4.5). See also Chapter 4, paragraphs 7 to 15, of the ELP.
	Benefits of EE	Societal benefits of energy renovation of buildings include local quality jobs, alleviation of energy poverty, energy security.	99, 128	
	Challenges of renovation	The building renovation segment presents specific challenges and low renovation rates, and there is need to prioritize economically sound EE measures that reduce primary energy consumption.	54, 67, 99, 128	
5.2	**Building rehabilitation and refurbishment**			
	Building rehabilitation	Rehabilitation of existing buildings should be a priority, given the potentially large impact due to the large existing stock of inefficient buildings.	6, 18, 54, 97, 99, 100, 105, 113, 115, 127, 128, 133	The refurbishment and modernisation of the existing building stock is indeed a priority for the EIB. The EIB is implementing various lending, blending and advisory operations to accelerate the refurbishment of buildings. The EIB will create a European Initiative for Building Renovation (EIB-R) to support aggregation of rehabilitation projects, to support new source of finance through unlocking new market in EE mortgage and dedicated technical assistance under ELENA/SFSB.
	Public buildings	There are specific opportunity to address public buildings.	97, 113, 115, 128	Public buildings are eligible for the EIB financing.
5.3	**New buildings**			
	Agreement to support buildings going beyond standard	The EIB should consider new buildings in the EU as eligible under EE only if they go beyond national mandatory minimum threshold, i.e. nZEB, after it becomes mandatory in 2021.	3, 6, 7, 15, 18, 35, 43, 70, 74, 75, 128, 130, 139, 141	For a building to be considered for EIB financing purely on EE grounds, a very high performance should be reached (see Chapter 4, paragraphs 13 to 15, of the ELP).

	Topic	Summary of comments	Contributions	EIB response
	Criteria	Importance to define clear and practicable criteria for buildings beyond nZEB, if that approach is chosen.	3	(see previous page)
	Buildings complying with standards	EIB should support new buildings in the EU that just meet the mandatory legal threshold as EE, i.e. nZEB after it becomes mandatory in 2021. The nZEB level can be already quite ambitious and should be supported as part of the transition to a more sustainable building stock.	3, 12, 63, 67, 90, 105, 116, 123, 133, 136, 137	Buildings that are just complying with minimum requirements concerning energy performance are difficult to count under the EE objective. However, these buildings may still be financed by the EIB, if the building qualifies on other eligibility grounds (e.g. social housing, social infrastructure). The consistency of new building projects with good urban planning is an important point to be considered for each project.
	Urban planning	Other social and environmental criteria, such as good public transport connections could be used to qualify merely compliant buildings as EE.	3, 42, 63, 97, 114, 123	The EIB takes note of this comment.
5.4	**New buildings outside the EU**			
	Criteria outside the EU	Adjusted criteria should be used for the support to new buildings outside the EU, taking into account local climatic conditions and building practices.	3, 55, 100, 102	The EIB recognizes that outside the EU adjusted EE criteria need to be used, especially for very different climatic conditions and building practices. Also, there is a higher overlap with developmental objectives that may put more focus on affordability. However, for a new building to be considered on EE grounds, very high energy performance is required. This would typically be achieved through established and internationally accepted certification schemes (see Chapter 4, paragraphs 12 and 15, and Annex I of the ELP).
	Affordability outside the EU	There is often a higher need to ensure affordability outside the EU.	42, 55, 97	
	Standard outside the EU	Alignment with existing global standards and certifications should be sought.	100	
	Same approach outside the EU	Supporting new buildings outside the EU should follow the same criteria as inside the EU, notably for more developed countries outside the EU, EIB should support only such buildings as EE if they are compliant with EU standards.	3, 137, 141	
5.5	**ESCOs, and energy contracting**			
	ESCOs	The EIB should place a focus on ESCOs and energy contracting. ESCO models, energy	67, 100, 115, 116, 127, 128	The EIB recognizes the strong contribution that can come from ESCOs, energy contracting and energy performance

	Topic	Summary of comments	Contributions	EIB response
		performance contracts and energy contracting can be instruments to accelerate EE uptake in buildings.		contracts. These aspects are supported by the EPBD. The EIB is actively supporting this segment and open to consider new financing proposals. See Annex I of the ELP for more information on ESCOs.
	Energy contracting	Using PPPs in the area of energy contracting are proposed.	67, 115	
5.6	**Energy management systems (EMS), smart buildings and digitalization**			
	EMS	Smart buildings, EMS and digitalization of buildings are important enablers of energy savings and smart demand management. These aspects should receive EIB support and may be included in the criteria for EE investments in buildings – both new built and renovation.	10, 54, 67, 100, 115, 126, 128	The EIB agrees that building EMS, smart buildings and use of digital technologies are essential aspects to exploit EE potentials in buildings. Such components are therefore typically eligible for EIB support under the EE ground. This is a focus area of the EIB's appraisal process and a requirement of the EPBD.
5.7	**Efficient gas heating and appliances**			
	Gas appliances	Switching to gas for ambient and water heating, as well as the replacement of old appliances with new energy efficient gas appliances can generate significant energy savings and should be supported by the EIB.	65, 67, 106, 114, 128, 136, 139	Efficient gas boilers are eligible under the ELP (see Annexes I and II of the ELP).
5.8	**Affordability of buildings and other economic, social and environmental criteria**			
	EE and affordability	There is need to balance EE with affordability implications in case of higher construction cost or high refurbishment cost. Many EU citizens are suffering from energy poverty. The EIB should focus on social housing.	10, 12, 42, 97, 114, 123	Affordability is key concern for the EIB. Support under EE is limited to reasonable construction cost. Support to social housing is not covered by the Energy Lending Policy. All projects are subject to an economic analysis, which evaluates the social benefit and ensures the use of economically reasonable measures. See the EIB's responses to Q4.
	Urban integration	Other economic criteria or good urban integration should be considered. In such cases, adapted criteria or higher support levels are needed.	10, 12, 90, 97	The EIB takes note of this comment.

	Topic	Summary of comments	Contributions	EIB response
5.9	**Other specific topics**			
	Electric Vehicles (EV) and RE readiness	It is important to ensure readiness for EV charging and for RE integration.	3	The EIB takes note of these comments. See the EIB's responses to Q2.
	Specific buildings	Buildings with very specific energy profiles may follow adapted criteria.	3	
	Lifecycle cost	Full lifecycle cost and emissions of buildings should be considered.	3	
	Conditionality	Using conditionality for access to funding (linking it to the targeted or achieved energy savings).	63	
	Long-term strategy	Alignment and prioritization of Long-Term Renovation Strategies (LTRS) included in the EPBD.	99, 100	
	Taxonomy	Align to the taxonomy for financing sustainable growth (notably EC proposed regulation).	12, 94, 123	
	Waste heat	Address waste heat recovery potential.	124	
	District heating and cooling	The EIB should support district heating and cooling.	3, 126	
	District heating and renewables	District heating and cooling networks play a major role as aggregators and have the potential to increase the use of renewable energies.	109	
	Supply chain	The EIB should support the EE in buildings' supply chains.	3	
	Sub-segments	The EIB should be more specific about sub-segments such as "residential buildings", "privately owned residential buildings", and "energy poverty".	41	
	Financial intermediaries	Any new EIB standard for buildings needs to be able to be put into practice, with clear criteria for a financial intermediary to know if it is eligible or not.	72	

Q6: The Bank has developed a number of financial and technical assistance products to help promote energy efficiency in private and public buildings. Have you had any experience with these products? If so, do you have a comment or opinion as to how they can be further developed or improved?

	Topic	Summary of comments	Contribution	EIB response
6.1	**Multi-apartment buildings**			
	TA for multi-apartments buildings	TA products need to adapt to condominiums and multi-apartments (e.g include a decision-support package in the offering, or training tailored to house managers/administrators).	41, 57, 141	As mentioned in Chapter 4, paragraphs 7 to 12, of the ELP, the EIB is prioritizing building renovation, which is facing a persistent under investment compared to the level needed to reach the 2030 EE target of 32.5% in the EU. The EIB will establish an EIB-R – a one-stop shop for EE - to reinforce its activities in this field, including technical assistance activities, aggregation and the possibility of mortgage based lending or securitization.
	Capacity building	TA could be also offered to governments to improve regulation (capacity building) or as informational instruments to increase awareness by end-users.	41	
	One-stop-shops	One-stop-shops could be created by the EIB to offer financing, TA and implementation support. This would increase awareness of the benefits of EE, better assess the amount of savings ex-ante and standardize measures and verification protocols.	57, 141	
	Fragmentation	The EIB needs more holistic and consumer-centered solutions to address fragmentation of private owners, which is the biggest challenge.	57	
6.2	**ELENA**			
	ELENA is working	ELENA is working well and is very useful for municipalities and SMEs.	35, 57, 68, 95, 99, 100, 102, 116, 141	As mentioned in Chapter 4, paragraphs 10 and 11, of the ELP, the ELENA facility has been expanded with a further EUR 97 million until 2023.
	Maintain or boost ELENA	Current programmes need to be maintained and boosted.	99, 141	The EIB and the EC are also discussing future TA activities under the InvestEU initiative, including to improve access and implementation of TA activities.
	Local authorities	Financial and technical assistance provided by the EIB remains inaccessible for many local authorities. Small and medium cities struggle with application.	35, 116	Minimum thresholds are set to promote the aggregation of small projects.

	Topic	Summary of comments	Contribution	EIB response
	EUR 25m	The investment threshold of EUR 25 million is too high for many projects.	35, 63, 68	The investment threshold can be reached by aggregating smaller projects. Regarding the financing threshold, the ELP states that the EIB will finance up to 75% of the eligible portfolio capital cost (see Chapter 4, paragraph 6, of the ELP), which could help access to finance.
	Timing	The EIB should also extend the time needed to come up with unconditionally binding contracts in programmes such as ELENA.	68	Technical Assistance such as ELENA, requires a certain level of maturity at the time of application. The periods to come up with unconditionally binding contracts are established, considering this level of maturity required and to incentivize the implementation of the projects.
6.3	**Energy poverty alleviation through EE**			
	EBPD	Newly modified EBPD, 2018 emphasizes the need to prioritize energy poverty alleviation (Article 2).	41	The EIB recognizes that energy poverty is an important issue and the role that EE investment can play to reduce energy bills. The financing of 75% of eligible portfolios will contribute to lower the cost of capital for some projects, which can be passed through final consumers. More generally, the issue of energy poverty is dealt with by other EU and Member State policies, rather than by the EIB's energy financing.
	Low-income groups	The EIB should introduce programmes to support housing conditions of low-income groups.	97, 113	
6.4	**Countries**			
	Tailored TA	The EIB should develop new approaches to aggregation and TA to better reflect realities on the ground in different countries.	15, 41, 47, 75, 90, 105	As mentioned in Chapter 3, paragraphs 16 and 17 of the ELP, the EIB will strengthen its dialogue with Member States on the basis of final NECPs and seek to organize energy finance workshops with interested Member States to identify country needs.
	NECPs	The EIB should target the implementation of NECPs by MS.	96	
6.5	**TA to private partners**			
	Extend TA to private sector	TA should be extended to private counterparts such as professional organizations (i.e. National Associations of Architects or Building Engineers, responsible for the construction certificates of energy performance.)	7, 10, 57, 97, 125	Private counter parts are eligible for TA activities. For instance, ELENA focused initially on supporting public authorities but now includes also private entities such as banks.

	Topic	Summary of comments	Contribution	EIB response
	Aggregators	Engaging with private partners will allow to build a growing pool of aggregators.	47	The EIB has considerable experience in working either directly with companies or engaging in aggregation of small size EE projects, in partnership with public entities, housing companies, corporates as well as funds and financial intermediaries (see Chapter 4, paragraphs 8 and 9, of the ELP) .
	TA without intermediaries	The EIB should design instruments that work without intermediary banks, but also directly with energy suppliers to support delivery of their EE obligations.	139	
	Post-project monitoring	TA should cover post-project monitoring and training.	47	The EIB takes note that there is an interest for TA covering project monitoring and training.
6.6	**Energy Performance Contracting (EPC)**			
	PPPs with EPC	The EIB should explore PPPs with EPC. PPPs should also be explored for the renovation of public buildings.	67, 115, 116, 126, 127, 128, 141	EPC and other innovative financing schemes are eligible. They are part of the tailored financial support that the EIB can provide, including “receivable financing” mentioned under the European Initiative for Building Renovation (see Chapter 4, paragraph 11, of the ELP).
	Public resources	EPC ensures an optimal use of public resources.	67, 115, 141	
	Private schemes	The EIB should have more focus on innovative private financing schemes.	126	
6.7	**Financial instruments and green mortgage**			
	Low interest green mortgage	The EIB should support the development of lower interest green mortgage products, for example through partial guarantees.	75, 137	The EIB-R aims at unlocking new markets in EE mortgage based lending or securitization (see Chapter 4, paragraph 11 of the ELP).
	Green labelling	Projects could be promoted through a quick transposition of all new requirements on “green labelling”.	75	The EIB takes note of the need to transpose requirements on green labelling.
	Coordination with grants	There should be better coordination between the EIB financial instruments and competing or complementary grant schemes.	47, 102, 105	The EIB support can be provided alongside national or regional support programmes (see Chapter 4, paragraph 11, of the ELP).
	Maximum financial Limit	The EIB should relax the maximum financing limits when projects are in relation with EU structural funds.	102	The EIB already allows to increase maximum financing limits for EE.
	One size fits all	Financial instruments targeted at energy consumers should be sufficiently flexible to finance the	75, 105	The EIB takes note of this comment whilst indicating that a wide range of tailored financial support is already available.

	Topic	Summary of comments	Contribution	EIB response
		appropriate solution, and avoid one size fits all approaches.		
6.8	**EE outside EU**			
	Tools for outside the EU	The EIB should consider developing similar tools to Private Finance for Energy Efficiency (PF4EE) and SFSB, available for countries in Eastern and Southern Europe, to countries outside the EU. The focus should be on scaling up financing for privately owned multi-apartment buildings, capacity building for government actors and co-sharing risks.	41	Financing EE outside the EU is a priority for the EIB, including for building rehabilitation (see Chapter 4, paragraph 12, of the ELP). For new buildings exceeding current practices in a given country, see Chapter 4 paragraph 15, and Annex I of the ELP.
6.9	**Other changes**			
	Improvements of EEQuest	The EIB's EEQuest tool should be available in several languages, have more visibility on calculations, link to real estate valuations, should prioritise investments based on internal rate of return, add visual impact result on energy label of the property and a tool should be accessible for end users.	72	EEQuest, an EIB tool developed to assist intermediated financing in the field of EE, is expanded in parallel to the origination of new operations
	Communities, innovation	TA for communities, for innovation and public buildings are essential.	3, 70, 90, 97, 99, 103, 113, 115, 131, 133, 134	See points 6.1 and 6.2.
	Smart homes	The EIB should finance major building renovations and the installation of digital equipment that can improve building energy performance ("smart home" & "smart living" projects).	10, 18, 57	See point 5.6.
	Investment decisions	TA should be available to help making investment decisions, not just to support investment decisions already taken.	131	See point 6.5.
	SMEs	TA should be tailored to small beneficiaries. It is essential for SMEs.	75, 90, 105, 124	The EIB is seeking, in close cooperation with the EC, to work on EE lending to SMEs and integrate this within the EIB-R (see Chapter 4, paragraph 17, of the ELP.)

	Topic	Summary of comments	Contribution	EIB response
	Equipment and appliances	The EIB should finance subsidised low costs EE equipment/appliances, intermediated through municipalities or utilities. TA may help develop such programmes.	3	The EIB takes note of this comment.
	Real data	Reporting on the energy performance of buildings receiving TA is key. It should be made based on real data.	70	As mentioned in Annex I of the ELP, the expected energy savings are monitored after the works on the basis of energy performance certificates of other transparent and proportionate method acceptable to the EIB.
	Appraisal process	A lighter EIB appraisal process in relation to the amount of investment would strongly help accelerate EE projects (less time and less due diligence costs).	115	The ELP is streamlining the appraisal process as much as possible, relying for instance on lists of EE eligible expenditures for building renovation (see Annex I of the ELP).

Q7: Do you have lessons learned to share in order to improve the financing of energy efficiency in SMEs? Is technical assistance an important dimension? If so, do you have any views as to which type of technical assistance that is the most effective to provide?

	Topic	Summary of comments	Contributions	EIB response
7.1	**TA lessons learnt**			
	Assessment	TA is very important in the field of technical and financial assessment of projects.	15, 47, 102, 113, 141	TA has been created and developed primarily to improve project assessment.
	Finding solutions	The EIB should engage in consultations with stakeholders to find solutions whenever "traditional" options (e.g. electricity grids) are not feasible/pursued.	2, 15, 42, 75	The EIB takes note of this comment.
	Capacity building	Capacity building (for governments and technicians) should also be pursued.	2	The EIB's TA can support project development, including all these dimensions.
	RDI TA	TA should also be used for RDI.	42	
	Distributed sources	The EIB should support TA provided by energy companies to end-customers to facilitate the deployment of distributed resources.	75	
7.2	**SMEs**			
	Pay-back times	In SMEs there are many EE measures with short pay-back times.	43, 54, 90, 124	SME lending for EE is being promoted through the use of intermediated operations by the EIB. For this purpose, the eligibility check is being streamlined with tools such as EEquest.
	Products for SMEs	The EIB should focus on building awareness of its products and making them accessible to SME customers.	105	Marketing activities are supported as part of the TA for EE in programmes such as ELENA or PF4EE.
	Partnership	The EIB should develop creative partnerships: financing solution integrated in EE solution, dedicated turnkey solutions and network development.	124	A European Initiative for Building Renovation (EIB-R) will be created to support aggregation of rehabilitation projects, to support new sources of finance through unlocking new markets in EE mortgage and dedicated TA under ELENA/SFSB.
	Customer's need	Financial solutions and TA should be tailored to the customers' needs. In particular: flexibility on	75, 90, 105, 124	The EIB takes note of this comment.

	Topic	Summary of comments	Contributions	EIB response
		minimum amounts, quick reaction, low financial costs, etc.		
7.3	**EE subsectors to be targeted**			
	ESCOs	The EIB should develop dedicated instruments to support ESCOs.	128	Some instruments such as PF4EE (combining a guarantee, a loan and TA) have been used to support ESCOs. The EIB is expanding the use of risk-sharing instruments to address investment barriers in the field of EE.
	Heating, district heating and CHP	The EIB should finance the construction of new and the refurbishment of existing district heating networks. Priority should be given to renewable or highly efficient heat generation – biomass CHP, waste-to-energy (in line with circular economy), waste heat recovery, heat pumps, geothermal, solar and hybrid projects.	10, 70, 105, 128	The EIB supports all low carbon technologies and efficient CHP. See Annex II (on heat and CHP) and Annex IV (on district heating networks) of the ELP.
	Early deployment technologies	The new ELP should also consider technologies which have not yet reached full market maturity, or for which a market is still forming.	1, 42, 70, 73, 128	See Q10, 11 and 12.
	Industry, Cogeneration	The EIB should support further EE investments in industry, including the continued switching to more efficient heat supply via condensing boilers, cogeneration.	105	Large Industry is eligible for EE financing. Given the existing regulation (mandatory energy audits for large companies, EE obligations) and the progress already achieved by these companies, the focus of the EIB is on EE in SMEs.
	Industrial consumers	The EIB should target lending towards industrial consumers, focusing on cost-effective solutions for industrial heat supply.	105	
	Appliances	The EIB should finance subsidized low cost EE equipment/appliances, intermediated through municipalities or utilities. TA may help develop such programmes.	3	The EIB takes note of this comment. Equipment and appliances can be included in a list of EE eligible expenditure for building renovation.

	Topic	Summary of comments	Contributions	EIB response
7.4	**EE products**			
	Long-term financing	The EIB shall provide long-term financing combined with refinancing policies to match financing term with assets' useful lifetime instead of Power Purchase Agreement (PPA) duration.	70	See point 3.2.
	Guarantee during construction	To attract private finance, the EIB might give green projects specific support through guarantees during construction phase.	70	The EIB can provide guarantee during construction.
	Large programmes	For large programmes, EIB financing should complement a taxation system based on the "polluter pays" principle.	75	The EIB takes note of this comment. Support can be provided alongside national support programmes or taxation.
	Dedicated channels	The EIB should develop different dedicated financing channels for different types of clients.	128	The EIB Group can provide financing through different instruments (senior loans, mezzanine and junior loans, guarantees, direct and indirect equity, intermediated loans, etc.) to suit the needs of different customers.
	One-stop-shops in each Member State	The EIB should create one-stop-shops and local presence in each Member States to provide simple access to TA to SMEs, in particular, which is critical.	141	EIB loan officers work according to geography and type of customers and act as a contact point in the EIB for all financing needs. The EIB has local offices in all Member States and JASPERS has offices in a number of countries.
	Energy-audit pre-financing	Develop pre-financing of energy audit.	47, 78, 133	Provision of energy audits are already supported by EIB TA (see Chapter 4, paragraph 9, of the ELP).
7.5	**The EIB internal process**			
	Climate Action	Climate Action projects are not really incentivised by EIB terms. Rather, they are often disincentivised through additional reporting and administrative burdens.	47	The ELP does not address Climate Action targets which are defined in the EIB's Climate Strategy, currently under review.
	"Energy efficiency first" principle	The EIB needs to take into account both the supply and demand side efficiency, applying the "energy efficiency first" principle across the entire value chain.	48	See the EIB's responses to Q1 and Q3.

	Topic	Summary of comments	Contributions	EIB response
	Due diligence	The due diligence process for small scale EE projects with project finance structure, should be lighter.	67, 115	See point 6.9. The EIB uses a list of eligible measures. For smaller projects, the eligibility check is being streamlined with tools such as EEquest and monitoring and reporting requirements are simpler.
	Additionality	Constraint on additionality should be relaxed to allow recycling of equity in portfolio funding of small projects.	67, 115	The EIB can do “equity recycling” for projects when this leads to the financing of a new portfolio of projects.
	Investments without subsidies	Financing solutions should be available for investments which cannot tap on subsidies (although there is no “one size fits all”.)	75	This is already the case: the EIB can finance projects not benefiting from subsidies.
	Energy performance returns	The EIB should balance investment costs and energy savings, and prioritise investments with largest energy performance returns.	128	Rehabilitation measures following national energy performance standards (in line with the cost optimum levels as defined in the EPBD) are eligible for the EIB.
	Financing conditions	The EIB should ensure that EE improvements identified in energy audits are reflected in its financing conditions.	128	The EIB finance contracts include monitoring provisions.

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?

	Topic	Summary of comments	Contributions	EIB response
8.1	**Support to RE**			
	Support to RE needed	The EIB should continue to support the deployment of renewable capacity globally.	7, 37, 40, 54, 75, 81, 87, 95, 96, 103, 105, 106, 112, 114, 115, 118, 123, 124, 126, 127, 128, 141, 144, 145, 147, 148	The EIB will continue to support the deployment of renewable capacity both inside and outside Europe, with a special attention being given to the integration of renewables into markets and, in the context of the EU, the development of projects without government support (see Chapter 4, paragraphs19 to 23, of the ELP). Innovation in low carbon technologies including renewables will remain a priority (see Chapter 4, paragraphs 29 to 34 of the ELP).
	Innovation	The EIB should support R&D and pilot projects. (including repowering and RE technologies which are less mature.	1, 37, 81	
	Best practices	The EIB should support investment in RE projects using some of the state-of-the-art technologies and best practices in order to promote projects quality (e.g. lidar use to improve wind projects).	1, 42, 73, 128	
	Difficult projects	The EIB should focus on more difficult and costlier projects (e.g. small HPP in protected areas, renewable hydrogen) and less mature markets i.e. with relatively long payback periods.	3, 4, 18, 31, 40, 67, 73	The EIB sees high additionality in focussing on the long-term development of technologies which are at a relatively early stage of deployment, but which have a strong potential for cost reduction (see Chapter 4, paragraph 24 of the ELP).
	Locations	The EIB should support renewables in more difficult locations (renewables in Islands).	4, 12, 18, 40, 73	Support to renewables is available in all regions. The EIB will engage with Member States on the basis of the NECPs to identify areas where its support can be most effective. Under the ETP, the EIB will be able to finance up to 75% of the eligible costs for projects supporting renewables.
	Geographic focus	EIB's financing of RES projects has been concentrated in a relatively small number of Member States.	4, 12, 18, 42, 47, 71, 89	
	In coal regions	The EIB should support RE in less developed markets or where coal is dominant fuel.	12, 15, 71	

	Topic	Summary of comments	Contributions	EIB response
	Auctions	EIB's should abstain from participating in markets with auctions if the capacity tendered remains the same with or without EIB support.	3, 71, 131	The EIB's approach towards ensuring high additionality for renewables is set out in Chapter 4, paragraphs 19 to 28, of the ELP. Clearly, where the value added by the EIB is low, this will be flagged. In general, however, the EIB would not agree that a demonstrable increase in auctioned capacity is the only measure of the EIB's value to the sector.
	District heating	The EIB should support renewable based district heating projects.	62, 123, 125	As set out in Chapter 4, paragraph 26 of the ELP, the EIB will seek to support the promotion of renewable heat, including through district heating systems.
	Hydropower	The EIB finance for development of hydropower in the recipient country should be based on a national energy strategy that has undergone a Strategic Environmental Impact Assessment (SEA) and river basin wide cumulative impact, define NO GO zones, ensure financial viability and meeting international standards (e.g. WCD).	4, 40, 147	See point 1.15: the EIB has recently published draft guidelines on hydropower development.
8.2	**Guarantees, insurance, de-risking and specific products**			
	Zero subsidy renewables	The EIB should mobilise (and not just 'complement') the private sector and help create a commercially sustainable market for RE technologies which can then compete with conventional power without financial subsidies.	2, 5, 12, 15, 18, 54, 55, 70, 71, 76, 77, 81, 97, 115, 117, 118, 121, 123, 124, 125, 126, 130, 131, 133, 137, 145, 148	The EIB Group can in principle offer a large range of financing products, ranging from quasi-equity, junior and senior debt, as well as guarantee products. However, the EIB operates within its credit risk principles (see Chapter 1 of the ELP). The ELP announces that the EIB will seek to enhance its risk-sharing capacity through InvestEU or other sources of risk capital, to be able to increase its support to renewable projects being integrated in electricity markets or developed without government support and with corporate PPAs (see Chapter 4, paragraph 20 to22, of the ELP). More broadly, the EIB will continue to provide financial advisory services.
	Energy communities	The EIB should support Local Energy Communities.	47, 68	
	PPA counterparties risk	The EIB should support mitigation of PPA counterpart's credit risk or final client's credit risk. The EIB should develop EU Power purchase guarantees, similar to Norway's GIEK for corporate PPAs.	4, 13, 55, 67, 75, 89, 91, 115, 126, 148	

	Topic	Summary of comments	Contributions	EIB response
	Blending and distorsion of competition	The EIB shall not do blending to avoid market distortion but shall help to decrease WACC in some markets (e.g. SEE).	68, 76, 121	(see previous page)
	Political risk mitigation	Key benefit of the EIB financing is its experience to help structuring bankable tenders, as well as to mitigate political risk.	5, 75, 121	
	Equity investment	Taking an early-phase equity position in RE companies with a promising project pipeline and exiting when the portfolio is operational may be an effective way of crowding-in equity funding from private investors.	5, 15, 54	
	Insurance products	The EIB should develop insurance products (e.g. covering resource development risk for geothermal projects) or guarantees (also during construction) for RES projects (also technology specific (e.g. for biogas) that may be exposed to adverse electricity market prices or political risk, or carbon price risk.	3, 67, 75	
	Long-term tenors	The EIB support should be extended to new financing tools (e.g. corporate PPAs, refinancing, capital markets) with long-term tenors and guarantee programmes.	4, 65, 67, 126	
	EU renewable energy financing mechanism	The EIB should support the EU renewable energy financing mechanism (Recital 35 and Article 27bis of the Governance Regulation).	4, 47, 55, 75, 89, 125	As presented in Chapter 4, paragraph 20, of the ELP, the EIB will continue to work closely with the European Commission for this important initiative.
	PV manufacturing	Support Europe Industrial PV Leadership = Financial instruments and low interest rate loans to support large-scale manufacturing plants.	7, 121	The EIB supports the EU battery initiative and, as mentioned in Chapter 4, paragraph 32, of the ELP, the EIB can support investment for initial full-scale commercial production lines related to breakthrough technologies under the SET-Plan.
8.3	**Financing and aggregation of small RE projects**			
	Coordination	The EIB could act to coordinate the needs of various stakeholders at local level and originate projects.	3, 18, 47, 65, 67, 68, 100, 113, 131, 133, 145	The EIB recognises the growing importance of distributed energy sources and the new opportunities they create for energy communities and aggregators developing new

	Topic	Summary of comments	Contributions	EIB response
	Aggregation	The EIB could create a volume effect by aggregating multiple small needs in order to reduce financing costs and create synergies in implementation. Given investment needs, EIB should focus on small scale RE and EE (with TA), including integrating EE first principle across all investment decisions, as well as priority to decentralised, small-scale and community-led energy projects.	2, 15, 47, 59, 62, 68, 100, 133	business models, as well as some financing challenges associated with the smaller size of individual investments. Such projects can make a high contribution to the EIB's ELP. See the EIB's responses to Q10.
	TA	Threshold for ELENA for small RE shall be reduced and administration procedure shall be simplified.	82, 112	
8.4	**Managing RE variability and flexibility**			
	Pumped hydro	The EIB should support electricity storage projects, particularly those based on large-scale, mature technologies with very high European and local value, like for example hydro-pumped storage.	4, 67, 76, 87, 102, 115, 120, 129, 133, 137, 141, 146, 148	Flexibility and security of supply are important dimensions of the energy transformation and important priorities in the ELP. As mentioned in point 1.9, the EIB will support new sources of flexibility.
	Dispatchable renewables	Resource adequacy can be provided with gas-fired plants burning renewable gases (biogas, hydrogen, synthetic methane). The value of dispatchable generation is not fully appreciated in LCOE calculations.	48, 67, 95, 96, 102, 105, 106, 115, 137, 141, 148	
	Grids	Investments to reinforce the network will accelerate the RES market integration.	48, 112, 137	
	Capacity markets	Thermal storage and generation (e.g. biomass) will need capacity mechanisms (or similar) to ensure their economic viability.	55, 105	
	Power-to-X	For power-to-x solutions, the focus should be on (x=hydrogen or ammonia, rather than oil of methane. Electric cars are readily available.	55, 102, 112, 127	See point 1.15.

	Topic	Summary of comments	Contributions	EIB response
8.5	**Other points**			
	Technology neutrality	The EIB should support all low-carbon technologies as a whole, not just renewables and acknowledge that CCS and CCU contributes to the circular economy by reusing carbon for other products or fuels. Natural gas is more mature than RE and will displace coal. A fair and non-discriminatory approach between low-carbon technologies is needed.	10, 37 48, 58, 93, 105, 115, 118,120, 129, 133, 137, 144	The EIB takes note of this comment, and confirms that it will support the development of all innovative, low-carbon technologies See points 1.6 and 1.15 and Q3).
	Gas CHP	Gas-CHP technology should be eligible in the EIB's ELP.	55, 86, 87, 118	The EIB's eligibility conditions towards gas-fired highly-efficient combined heat and power plants are set out in Annex II of the ELP.
	Renewables and EE	The EIB lending criteria should prioritise primary energy savings, including for renewables. The EIB needs to take into account both the supply and demand side efficiency, applying the "energy efficiency first" principle across the entire value chain.	18, 48, 62, 105	The EIB is explaining how it implements the "energy efficiency first" principle in the introduction to Chapter 4 of the ELP. See point 1.11. See also the EIB's responses to Q3 and Q5.
	Hydrogen and biomethane	The EIB could finance non-electric renewable sources (hydrogen, biomethane) as much as wind and solar.	55, 61, 65, 67, 106	These projects are eligible, with conditions set out in Annex II of the ELP. See point 1.15.
	Fuel flexibility	The EPS should value EE and flexibility (fuel flexibility and operating flexibility).	55	For the reasons set out in Chapter 4, paragraph 28, of the ELP, the EIB will discontinue the formal EPS.

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?

	Topic	Summary of comments	Contributions	EIB response
9.1	**EPS level and review**			
	Keep at current level (550 gCO2/kWh)	The EPS is an appropriate safeguard as it is, and should be kept at current levels to allow the continued development of gas projects in line with the EU regulation on Capacity Mechanisms.	2, 7, 12, 35, 40, 42, 54, 55, 65, 67, 71, 74, 75, 76, 83, 87, 89, 90, 92, 100, 111,115, 117, 118, 120, 128, 148	For the reasons set out in ELP (see Chapter 3, paragraph 18 to 22, of the ELP), the EIB will formally discontinue the EPS from 2021 onwards. This applies to all EIB operations globally. The EPS will remain at its current level for the intervening period until end-2020. As set out in Annex II, the EIB will not support any low-carbon power project (e.g. geothermal, large hydro, etc.) which results in GHG emissions above 250 gCO_2 per kWh_e.
	Lower than 550 gCO2/kWh	The EPS could be more ambitious and lowered from the current level to 400-450 gCO2/kWh.	35, 55, 76, 112, 133	
	Lower sufficiently to exclude all fossil fuels, including gas	The EPS should be lowered to a level that excludes all fossil generation or should be abandoned and replaced with a commitment to stop fossil fuel financing.	3, 6, 8, 16, 18, 34, 37, 43, 47, 53, 56, 59, 62, 64, 78, 80, 82, 93, 95, 108, 113, 126, 129, 130, 133, 134, 137, 141, 142, 145, 147	
	100 gCO2/kWh or lower	The EPS should be set at 100 gCO2/kWh (also excluding all fossil fuels).	6, 47, 53, 113, 133, 137, 141	
	Include high efficiency gas CHP	The EIB eligibility criteria should allow for high efficiency gas-fired CHP to be eligible for EIB financing (either through high enough level or through exemption).	3, 71, 87, 105, 115, 120	
	Include high efficiency coal CHP cofired with biomass	The EIB eligibility criteria should allow for high efficiency coal- or lignite-fired CHPs cofired with biomass (either through a high enough level of the EPS or through an exemption from the EPS).	71	

	Topic	Summary of comments	Contributions	EIB response
	Include fossil CCS plants	The EIB eligibility criteria should allow fossil-fuelled power plants with CCS to be eligible for EIB financing (either through a high enough level of the EPS or through an exemption from the EPS).	71, 80, 96, 107, 114	(see previous page)
	Align with EU long term GHG reduction strategy	Any revision of the EPS should be in line with the Commission's long-term GHG emission reduction strategy, including the EU ETS.	96, 106, 115, 123, 140	
	Explicitly exclude coal-fired generation	The main consequence of the EPS has been to exclude coal-fired generation. It would be simpler to replace the EPS with a blanket exclusion of coal fired generation or to at least explicitly state that coal-fired generation is not eligible for EIB financing.	111, 133	
	Abandon EPS completely	Because of the EU ETS, the EPS is redundant and an unnecessary distortion of energy investments. It should be abandoned completely.	102, 115, 138	
	Separate EPS review process	The EIB should review the EPS level through an open and transparent process with a stakeholder consultation (separately from the ELP review process).	65, 105	As the EPS will be discontinued, several remarks are no longer relevant. The technical requirements for low-carbon energy projects, including emissions thresholds, will be kept under review.
	Publish full EPS path to 2050	The EIB should publish the full EPS path over time to 2050.	82	
	Long term reduction of emissions	The EPS should reflect the current fleet and the expected development in future. The EIB should require demonstration that any fossil-fuel projects result in long-term reduction of emissions.	33, 105	
	Apply EPS under ISO conditions	The EPS should be applied based on the design efficiency of the generating unit under International Organization for Standardization (ISO) conditions.	87	

	Topic	Summary of comments	Contributions	EIB response
9.2	**Exemptions**			
	No exemptions	There should be no exemption from the EPS, including flexibility for least developed countries (LDCs), because system flexibility and adequacy can be provided without fossil fuels. Exemptions may lead to lock in the use of fossil fuels.	6, 18, 34, 35, 47, 53, 56, 59, 74, 78, 142, 147	See point 9.1. Under the ELP, the EIB will no longer finance power generation projects reliant on fossil fuels from the end of 2020 and can thus discontinue the EPS. This will apply to all EIB operations throughout the world. As set out in Annex II of the ELP, the only exception to this is for highly efficient gas-fired CHP plants, which would result in GHG emissions of less than 250 g CO_2 per kWh_e. As set out in Chapter 3, paragraphs 10 to 15, of the ELP, on the role of different technologies in providing flexible response to variable RES, this approach reflects a decision of the EIB on where it can provide higher additional value as a long-term investor.
	Exemption for flexible generation (if the EPS level is lowered)	The efficiency-based calculation of the EPS disadvantages highly flexible power plants. The EIB eligibility criteria should allow for the financing of gas-fired plants that provide flexibility or otherwise contribute to system adequacy, including for isolated systems, enabling further and deeper RES penetration. If the current EPS level is lowered below 550 gCO2/kWh, then an exemption is needed.	12, 40, 42, 48, 54, 55, 65, 67, 71, 75, 76, 87, 89, 100, 102, 111, 112, 114, 115, 124, 127, 128, 148	
	Only “last resort” exemption for flexible generation, with strict conditions	Exemptions for flexibility or security of supply should only be granted as a last resort and/or with extremely limited operating hours (<5%), fast ramp rates <5-10 minutes, minimum efficiencies with high flexibility cogeneration, etc. and/or linked to enabling additional RES development.	3, 33, 76, 82, 87, 105, 108, 120, 126, 127, 133, 137, 141	
	Keep exemption for islands and isolated systems	The EIB should keep exemptions for small islands and LDCs subject to conditions on emissions and decarbonisation strategies.	87, 133, 148	
	Partial exemption for high flexibility cogeneration	The EIB should consider a partial, case-by-case, exemption for highly flexible CHP plants that provide valuable system services at the expense of efficiency from both the high efficiency CHP requirement and from the EPS.	120, 127	
	LDCs exemption – Yes	There should be an exemption from the EPS for LDCs to support least cost development pathways.	7, 12, 48, 100, 111, 133	
	LDCs exemption – Yes but only if	There should be an exemption from the EPS for LDCs, but only for lower emissions plants (e.g. gas-	82, 112, 130	

	Topic	Summary of comments	Contributions	EIB response
	aligned with the Paris Agreement	fired plants) aligned with the Paris Agreement and national decarbonisation plans.		(see previous page)
	No different treatment of LDCs	There should be limited exemptions for flexibility or system adequacy (or sufficiently high EPS levels), but LDCs should not be treated differently, as the risk of stranded assets or carbon lock-in is too high.	3, 42, 76, 83, 87, 89, 92, 95, 103, 123, 141	
	EPS limited to fossil fuel projects, not RES	EPS should only apply to fossil fuel projects, not RES projects (e.g. biogas).	87	
	Extend EPS to distribution projects	The EIB should extend the application of the EPS to distribution (not only extraction and generation) projects.	108	
	Other exemptions	There should be exemptions from the EPS for countries where RES penetration is low and reliance on fossil fuel generation is high (e.g. Western Balkans).	15	
9.3	**Other methodologies**			
	Adopt a carbon budget alternative to the EPS/kWh	Introduce an annual carbon intensity or carbon budget threshold (tCO2/year) as an alternative to the production threshold (gCO2/kWh).	127	In the EIB's view, in light of the decision to no longer finance power generation or heat production from fossil fuels, additional safeguards to the EPS or other methodologies (e.g. carbon budget/portfolio metrics) are no longer relevant.
	Do not adopt a carbon budget alternative to the EPS/kWh	Do not adopt the alternative 350 kg CO2/kWh carbon budget criterion from the EU regulation, as it is designed to keep old and inefficient coal units on the system. Only rely on the 550 gCO2/kWh threshold instead.	120	
	Portfolio EPS	The EIB should limit the share of fossil fuels in its overall lending portfolio and introduce a portfolio-level EPS.	3, 137	

	Topic	Summary of comments	Contributions	EIB response
	Test full lifecycle emissions against EPS	Project emissions tested against the EPS should include full lifecycle emissions including construction-related emissions, full physical lifetime emissions and comparing brownfield vs greenfield plants.	95, 105,115, 128, 131, 137	These topics are discussed in the framework of the carbon footprint methodology of the EIB, which already allows for the inclusion of scope 3 GHG emissions in certain project types. Further work is being undertaken together with other IFIs to explore approaches for indirect emissions.
	Screen construction emissions separately from operating emissions	Project emissions tested against the EPS should include full lifecycle emissions. Lifecycle emissions during construction should be assessed and screened separately from lifecycle emissions during operation, without compensating for each other.	131	
	Emissions outside ETS	The EPS should factor in that a portion of power and heat emissions fall outside of the scope of the ETS.	105	
	EPS for heating and cooling	The EIB should introduce an EPS or equivalent decarbonisation requirement for heating and cooling.	9, 105, 137, 141	In light of the decision to no longer support heat production from fossils fuels, it is no longer relevant to consider an EPS for heating or cooling.
	EPS for heating and cooling – include gas	The EIB should set the EPS level for heating and cooling such that it allows financing gas and electric heat pumps.	9	
	EPS for heating and cooling	The EIB should set the EPS level for heating and cooling such that it excludes gas-fired boilers for heating.	137	
	Fair allocation of emissions between power and heat for CHP	In case the EIB introduces an EPS criterion for heat, it should review the method for allocating emissions between electricity and heat in CHP plants to allow a fair comparison with the separate production of electricity and heat.	105, 127	The EIB takes note of this comment.
9.4	**Other non-EPS suggestions**			
	Paris alignment	The EIB should rule out financing projects that are not Paris aligned, including all fossil fuels projects.	6, 47, 82, 130, 137, 142, 147	The ELP reflects these comments.

	Topic	Summary of comments	Contributions	EIB response
	Exclude coal to gas conversion	The EIB should rule out financing coal to gas conversion.	103	(see previous page)
	Exclude solid fuels for heat	The EIB should rule out financing solid fossil fuels for heat generation (similarly to the modernisation fund of the revised ETS Directive).	87, 111	
	Other air pollutants	Limits on air pollutants should be informed by current EU legislation and not conflated with long-term climate targets. There is a continued role for gas in improving air quality.	55, 96	The externalities associated with local air pollutants are included in the appraisal of eligible projects.
	Priority support to carbon abatement options	The EPS is not sufficient to support carbon abatement options such as low carbon gases, cogeneration or CCS. The EIB should consider carbon abatement potential and explicitly support carbon abatement investments, including CCS on new fossil fuel plants.	107, 114, 117	Low carbon technologies such as CCS are eligible under the ELP.

Q10: Are there ways in which the Bank could provide more targeted support to distributed resources (demand response, small-scale generation and storage projects)? Are new business models or technologies emerging in this context, with specific financing needs? Is the Bank's portfolio of financial products and instruments adequate to support this technological transition?

	Topic	Summary of comments	Contributions	EIB response
10.1	**Support to distributed sources and new business models**			
	Yes	The EIB should support new technologies and business models, either directly or indirectly.	5, 27, 47, 54, 55, 67, 92, 103, 118, 123	The EIB takes note of this comment the strong support for the development of its activities in this field.
10.2	**Possible risks or challenges**			
	Premature	It is too early to know the financing needs of certain technologies (e.g. hydrogen, fuel cells, VPP).	42	The Clean Energy for All package provides a clear framework to enable the development of distributed resources and new business models of new types of energy infrastructure. As described in Annex III, the economic assessment of decentralised energy sources takes into account the efficiency of energy systems.
	Clean Energy for All package	The EIB lending should fit in the framework of the Clean Energy for All package– potentially even waiting for its full implementation before crystallising the lending policy.	42, 68	
	Costs	Decentralised resources should be financed if they are cost-effective: when decentralised are more expensive than centralised energy sources, they should demonstrate a clear justification of the benefits for the system.	55, 133, 148	
10.3	**Guidelines and approaches to follow**			
	Technology neutral	The EIB should maintain a technology-neutral approach.	118	The EIB takes note of these comments concerning decentralised energy sources. See the EIB's responses to Q1 to Q3.
	Local	The EIB should increase engagement, dialogue and interaction with local stakeholders.	2	
	Innovation	The EIB should support process and product innovation.	12, 71, 148	
	Geography	Geographical diversification of EE and RES investments is important.	47	

	Topic	Summary of comments	Contributions	EIB response
	NECPs	The NECPs provide detailed guidance on pathways.	81	(see previous page)
	Breakthrough	The EIB should remain flexible and open to developments and breakthroughs.	68, 114, 125	
	Sector integration	Regulatory and legislative frameworks that foster cross-sectoral approaches should be supported.	125	
10.4	**The definition of "decentralised" resources or technologies**			
	Storage	There is a general need to develop storage technologies, including long-term energy storage solutions.	12, 52, 54, 67, 71, 72, 73, 101, 114, 117, 118, 124, 127, 130, 131, 133, 145, 148	The EIB recognises the wide diversity of energy sources that can fall under the category of "decentralised energy sources". In the ELP, the EIB consistently uses the term "new types of energy infrastructure" to refer to investments including storage, clean mobility, demand responses and digitalisation.
	Demand response	Demand-side services and resources are part of decentralised solutions and should be supported.	67, 87, 110, 111, 133	
	Sector coupling	Technologies that spur sector coupling or sector integration, particularly at local level, are important.	100, 105, 106, 127, 140	
	Digitalisation	The digitalisation of the energy sector should be supported.	40, 100, 128	
	Clean mobility	E-mobility, or "clean mobility" more broadly, is an area which the EIB should prioritizes, also singling out the ultra-fast chargers.	12, 55, 65, 67, 71, 133, 148	
	Hydrogen and power-to-X	Hydrogen technologies (across the whole supply chain) and power-to-X technologies need to be developed. Hydrogen could be a valid decarbonisation option for hard-to-decarbonise sectors (e.g. industrial heat)	55, 65, 67, 71, 73, 88, 98, 100, 106, 114, 117, 118, 120, 127, 131, 133, 148	All the portfolio of low carbon technologies contributing to the energy transformation are eligible for EIB financing. See the EIB's responses to Q2, Q3 and Q8.
	District heating and CHP	Many technologies and solutions are available for district heating: renewable heat, high-efficiency heat generation, renewable CHP, waste heat recovery	10, 95, 125, 48, 66, 98, 105, 120, 136	

	Topic	Summary of comments	Contributions	EIB response
		and use, heat pumps, geothermal, solar and hybrid heat generation, decentralised low-temperature heat sources, small-scale and micro-CHP. In some cases, support to renewable CHP has been made conditional to the use of local fuel.		(see previous page)
	CCS and CCU	CCS and CCU should be supported.	12, 40, 71, 114, 117, 133, 148	
	Green gases	There is a need to foster the development and production of gases from biogenic sources, including the local dimension of some of the technologies in this field.	54, 65, 96, 98, 106, 117, 120, 140	
	Green chemicals	"Green chemicals", including algae-based fuels or other bio-fuels should be supported.	19	
	Wind	Wind should be supported subject to following best practices and technologies, including for offshore.	1, 128	
	Enabling infrastructure	The EIB should support the enabling infrastructure needed for the deployment of new models and technologies (e.g. prosumers, hydrogen, alternative transport).	13, 88	The EIB's financing of electricity grids is described Chapter 4 and Annex IV of the ELP.
	Grid	Innovative grid management technologies (from R&D to commercial roll-out) are important.	13, 54, 71, 87	
	Off grid	Off-grid solutions, including solar kits, should be supported. This may be conditioned towards projects that are cost-effective in comparison with connecting to the grid.	2, 42, 55, 64	
	Non-interconnected	The EIB should support the interconnection of isolated or remote areas to enable quick wins in decentralised resources.	4	
	System efficiency	System efficiency refers to energy efficiency, in a wide sense, taking a system perspective.	18, 137	

	Topic	Summary of comments	Contributions	EIB response
	Battery recycling	Battery recycling and disposal need to be considered.	124	The EIB takes note of this comment.
10.5	**New energy business models and new financing approaches**			
	Prosumers	Prosumers should be supported. Electricity produced and consumed should be valued at different prices.	3, 35, 47, 145	The EIB takes note of these comments concerning the wide range of new business models in the energy sectors. The ELP sets out a high additional value for the EIB in supporting new market-based investments, in particular in new technologies, including for financial aggregation of small EE or RE projects, demand response aggregators, energy communities and storage (see Chapter 3, paragraph 8 and Chapter 4, paragraphs 35 to 39, of the ELP). As highlighted in Chapter 3, paragraph 38, of the ELP, the capacity of the EIB to support new business models needs to be consistent with credit risk principles and depends on sources of risk capital, notably under InvestEU.
	Electrolysers	New business models for electrolysers (and power-to-X more broadly).	67, 101	
	Consortiums	Consortiums of small companies in storage products.	85	
	Aggregation	Aggregation of smaller projects into large portfolios in general.	121	
	Energy communities	Collective self-consumption, cooperatives, crowdfunding and community energy, Virtual Power Plants, smart building packages, solar energy as a service.	89, 147	
	New organisational models	New organisational models, including innovation hubs, spin-offs, universities and companies focusing on R&D.	92	
	Co-ownership	Co-ownership of infrastructures (thus a new type of contractual counterpart).	110	
	Portfolio assessment	Do not assess project-by-project, rather take a global, strategic, long-term perspective.	70, 121	
	Circular economy	Finance all stages of the development process of “sustainable by design” / “circular economy” business models.	54, 72, 124	
	TA	Provide TA to develop new business models and pricing strategies.	125, 134	

	Topic	Summary of comments	Contributions	EIB response
10.6	**Financial products and instruments that the EIB should offer**			
	Portfolio is adequate	The EIB's existing portfolio is already adequate.	42, 51, 98	The EIB takes note of this comment.
	Longer tenor	Provide longer tenors / extend economic life of assets (or review the relationship between economic life and loan tenor).	4, 51	See point 3.2.
	Ticket size	The EIB should lower the minimum ticket size of direct lending operations.	35	The EIB directly finances operations with a given project size. For operations below certain thresholds, financing is provided through financial intermediaries.
	Bureaucracy	Reduce administrative overheads and bureaucracy.	87	The EIB takes note of this comment.
	Eligible costs	The EIB should review the definition of eligible costs. It should finance working capital and OPEX (as opposed to CAPEX only) because new business models / solutions are OPEX-based (e.g. energy-as-a-service, including Operation and Maintenance [O&M]) and service-based business models are getting more common.	72, 100, 105, 110	The EIB finances investment projects comprising all additional elements of a permanent nature. This can include working capital, for instance for SMEs. Please note, however, that in general the EIB is required to support the creation of new infrastructure.
	Blending	A better coordination among instruments can provide simple and coherent blending activity with the multiannual financial framework (MFF).	65	The EIB takes note of this comment. However, these points extend beyond the ELP.
	Funds	Synergies between different funds (e.g. Connecting Europe Facility, Horizon Europe, Innovation Fund, etc.) can be improved, notably by simplifying and streamlining application procedures.	101	The EC is in charge of defining the design of funds/facilities and instruments benefiting from EU funds and their related procedures. The EIB seeks to improve coordination and streamline application procedures where possible.
	Risks	The EIB should: - Provide guarantees, risk sharing facilities, pre-financing tools; - Take on more risk (i.e. over and beyond commercial banks); and - Help de-risking innovative technologies/models with quasi-equity or equity.	4, 131, 5, 13, 67, 125, 128	The EIB proposes a variety of products/instruments to suit the needs of different types of customers in line with its own risk taking capacity or mandates allowing it to take on more risk.

	Topic	Summary of comments	Contributions	EIB response
	Citizens	The EIB should improve direct access to financing to citizens and (local) communities.	68, 94	The EIB takes not of this comment. The ELP sets out the ambition for the EIB to support energy communities.
	Intermediated financing	The EIB should focus on direct lending to large operations only, using intermediaries (utilities) for the rest.	55, 75, 89, 94, 148	These points describe current activity today. However, the EIB will work with customers to find the best solution to their financing needs.
	Specific products	The EIB should develop more tailor-made approaches and instruments to certain areas.	1, 6, 12, 34, 40, 46, 65, 68, 71, 90, 100, 118	
	One-size-fits-all approach	Avoid locking into a “one-size-fits-all” approach because needs and circumstances are specific.	105	
	Programmes	Targeted finance programmes, in particular to small-scale or micro CHP (e.g. to develop pools of capital to provide finance for innovative applications).	105	The EIB takes note of this comment.
	Tailor-made solutions	The EIB should adopt tailor-made solutions for storage (from technical assistance to financial products). Each storage project is likely very different from the others, and this needs to be accounted for to maximise effectiveness.	52, 124	The EIB takes note of this comment. In general, the EIB has different products and services available to help storage projects.
	Local intermediaries	The EIB should work with local intermediaries more closely in order to understand local specificities.	125	The EIB takes note of this comment, but this goes beyond the scope of this ELP.
	New financing schemes	The EIB should support innovative private financing schemes (Energy Performance Contracting, crowd funding, etc.).	67, 121	Under the ELP, the EIB will continue to seek to support innovative private financing schemes where this provides scale and replicability in the market.
	Using EURIBOR in project finance	Using EURIBOR as floor in project finance leads to constraints on the borrower from hedging obligations, creating a distortion.	73	This goes beyond the scope of this ELP.

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?

	Topic	Summary of comments	Contributions	EIB response
11.1	**Type of support of lending to innovative projects**			
	Products	The EIB financial products supporting innovative energy projects are generally known and recognised.	2, 5, 52, 54, 55, 65, 71, 76, 83, 87, 90, 101, 102, 121, 124, 125, 126, 148	The EIB offers a wide range of financial instruments that can cover all financing needs. For innovation, the EIB is seeking to develop new products in accordance with its overall mandate and in particular under InvestEU.
	Advisory	There is overall less experience with the EIB's advisory products.	52, 124, 126	
	Risk	The EIB lending activity should pursue a different risk profile than commercial banks.	5	
	De-risk	Instruments should be designed to de-risk investments.	52	
	Equity and blending	Innovative energy projects can be financed by a combination of lending with equity or lending combined with advisory.	55, 71, 101, 126	
11.2	**Types of innovation**			
	Proven concepts	The EIB should promote demonstration and commercialisation of proven concepts rather than support innovation or new solutions.	2, 5, 40, 42, 55, 65, 70, 83, 100, 101, 106, 110, 115, 118, 124, 125, 126	The EIB recognises that it brings value in supporting innovation at the RDI stage as well as the demonstration stage, pilot stage and for the development of new production lines of innovative technologies. The support of new business models is also a priority (See Chapter IV, paragraphs 29 to 39, of the ELP)
	Business models	Supporting demonstration and commercialisation should not focus only on technology but also on developing and testing new business models.		
	Difficult sectors	Financing instruments should be developed for sectors that are recognised to be more difficult to decarbonise.	47, 54, 55, 58, 65, 90, 124, 125	

	Topic	Summary of comments	Contributions	EIB response
11.3	**Technologies**			
	Technology neutrality	The EIB should be technology neutral.	12, 40, 52, 55, 67, 71, 73, 76, 80, 86, 87, 88, 90, 95, 100, 101, 107, 111, 112, 118, 120, 124, 126, 128, 129, 136, 146	The EIB is willing and able to finance these technologies when a robust bankable case can be made.
	Technology specific	The EIB should support certain technologies, including power-to-gas (P2G), CCS, power grids, SMR, floating wind, PV, pyrogasification, infrastructure projects, hydrogen, etc.		
	Avoid dead ends	Not all innovative technologies provide a pathway to decarbonisation.	79, 141, 147	The ELP clarifies the scope of the EIB intervention that will support innovative projects aligned with the SET-plan and in particular the underlying implementation plans (Chapter 4, paragraph 30)
	CCS, nuclear, low-carbon fuels	CCS, nuclear and low-carbon fuels are less promising technologies.	18, 19, 34, 35, 55, 56, 59, 79, 141, 144, 147	
	Value chains	The EIB should develop European value chains and building capacity. It should recognise Strategic Value Chains (SVC).	65	The EIB recognises the importance of developing value chains for certain technologies in Europe and outside. See point 8.2.
	Gender	More attention should be paid to promoting women's participation in the green labour market and in renewable energy RDI and production.	11	The EIB Group Strategy on Gender Equality and Women's Economic Empowerment has a three-pronged approach. One of the areas of intervention ("Invest") aims to identify targeted opportunities to invest in women's economic empowerment that increase women's access to employment and support female entrepreneurship across sectors.
11.4	**Smaller projects**			
	EUR 25 million threshold	The most innovative demonstration projects are quite small and thus fall below the EIB's lower threshold for financing of EUR 25 million.	12, 67, 68, 71, 87, 90, 137, 148	The EIB supports smaller projects through intermediated operations (i.e. commercial banks) or through direct support to aggregators. The ELP recognises the need to support new entrants (see Chapter 4, paragraph 36, of the ELP).
	Framework	The EIB should support investment programmes/frameworks allowing project promoters to replicate successful demonstrations.	40, 83	

	Topic	Summary of comments	Contributions	EIB response
	Community owned innovation	Community owned innovation projects should be supported.	68	(see previous page)
11.5	**Better coordination and streamlining**			
	Coordination	Different instruments should be better coordinated, whether they are provided by the EIB or the European Commission.	47, 55, 73, 88, 90, 102, 111, 124, 128,	The EIB takes note of this comment and continuously seeks to improve the synergies between instruments. The EIB will continue to work closely with the Commission to improve the design of new funds and new products to support innovation.
	Development stages	Different instruments should better target different stages in the development process.	101, 124 126	The EIB Group can provide financing through different instruments (senior loans, mezzanine and junior loans, guarantees, direct and indirect equity, intermediated loans, etc.) to suit the needs of different customers.
	Communication	Communication on financing opportunities and conditions could be improved.	73	The EIB takes note of this comment.
	Complexity	The EIB's appraisal process is complicated and timelines are long.	55, 75, 94, 95, 124, 128	The EIB follows EU legislation in terms of environmental and social due diligence as well as procurement, ensuring the highest standards are applied.
	Reporting	Specific instruments add more complications in the form of additional reporting and screening.	47, 102	As a public bank, reporting obligations are important for the EIB. The nature and degree of these obligations can differ for programmes supported directly by EU budget. The EIB will continue to look for ways to make these obligations as pragmatic and efficient as possible.

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?

	Topic	Summary of comments	Contributions	EIB response
12.1	**Support to expensive technologies**			
	Decarbonise, even at higher costs	Given the necessity to decarbonise, all renewable or low-carbon projects should be eligible for financing even at higher costs.	35, 40, 54, 65, 81, 84, 87, 96, 101, 107, 117	All low-carbon technologies are eligible for EIB financing. The ELP defines the EIB's approach to renewable technologies at an early stage of deployment (see Chapter 4, paragraph 24, and Annex II, of the ELP). The EIB will continue to focus its support on the early deployment of these technologies with the aim to increase industrial learning and promote future cost reductions.
	Early deployment technologies	Technologies should be promoted if it can be demonstrated that significant cost reductions can be achieved, after a learning curve, through market size or scale-up.	3, 6, 14, 42, 48, 55, 62, 68, 70, 73, 75, 87, 89, 90, 97, 103, 121, 131	
	Do not invest in expensive technologies	The EIB should not invest resources in expensive trials where commercialisation is still far in the future.	3, 75	
	Technologies neutrality	The EIB should remain technology neutral and apply the same criteria to all loan applicants and technologies. However, the EIB could provide more clarity on these criteria, especially regarding different renewable energy sources.	12, 48, 96, 104, 148	
	Commercial arrangements	Cost reduction can also be the result of commercial arrangements.	3, 33, 42, 73, 141	
	Financial stability	Clear signals and a stable financial framework are needed for the manufacturing industry to make the necessary mass production investments.	107	
12.2	**Economic assessment**			
	EIB's economic assessment	The EIB's economic test, including positive and negative externalities, is a robust and reliable measure for mature technologies.	2, 3, 6, 13, 42, 52, 54, 55, 62, 67, 69, 71, 72, 73, 75, 82, 97, 98, 100, 102, 103, 104, 115, 121, 124, 126,	The EIB's economic approaches towards power generation and heat production is set out in Annex II of the ELP. In general, these account for relevant GHG externalities and other environmental externalities, as well as the local power system baseline. In addition, in the case of variable renewables, adjustments are made for profiling and system adequacy.

	Topic	Summary of comments	Contributions	EIB response
			127, 131, 133, 137, 148	As set out in Annex II of the ELP, a different type of approach is used for technologies that are still at a relatively early stage of deployment.
	Externalities	All externalities, in particular positive, are taken fully into account.	3, 12, 33, 71, 87, 95, 101, 104, 105, 114, 115, 130, 133, 148	The EIB's approach to valuing external costs is set out in the 2013 Guide to Economic Appraisal. The values used for carbon have been updated in Annex V.
	Geographic differences	A different benchmark should be used for countries with less renewables in their energy systems or further from their decarbonisation targets.	2, 5, 18, 46, 95, 122, 126, 137, 141	See points 3.4 and 3.10.
	Local manufacturing	Similarly, the value of promoting local manufacturing projects reducing energy poverty should be recognised.	97	See point 3.10.
12.3	**Specific considerations about renewable technologies**			
	Dispatchable technologies	Fully dispatchable renewable technologies like geothermal or bioenergy can provide ancillary services or system benefits in addition to only power generation.	95	See point 12.2.
	Support wide range of technologies	A wide range of renewable technologies could be supported and have their own merits, including biomass and biofuels, ocean energy, offshore wind, micro-CHP, gasification from renewable sources, niches of solar photovoltaic energy and the conversion of fossil plants to renewable sources.	2, 3, 4, 10, 33, 48, 66, 67, 70, 73, 84, 87, 90, 94, 101, 107, 121, 127, 131, 137	
	Community owned projects	Small-scale community owned projects should be supported.	43	Decentralised projects are eligible for EIB financing.
	Environmental concern of some technologies	Particular arguments, mainly on environmental grounds, are made against some technologies : bioenergy projects without strict sustainability criteria; deep geothermal; and new hydropower.	3, 62, 141, 147	Annex II of the ELP sets out the standards required by the EIB in connection with biomass sustainability and geothermal projects. Specific guidelines for the assessment of hydropower plants have been developed (see point 1.15).

Q13: In light of the long-term nature of the network development plans, which type of projects should the Bank focus upon? In addition to PCIs, should the Bank prioritise newer investment types, for instance in digital technologies?

	Topic	Summary of comments	Contributions	EIB response
13.1	**The EIB should focus on security of supply and efficiency that is a general goal to pursue in network investments**			
	Climate resilience	The EIB should focus on resilience to climate and weather events (already in project design) and refurbishment.	2	The EIB supports all electricity network projects as well as PCIs. Security of supply remains an important priority for the EIB lending activities in general, in line with the objectives of the Energy Union.
	Security of supply goal	Security of supply could be an independent goal / metric similarly to Climate Action.	1, 54	
	Reinforcement	Network investments include internal network reinforcements, also nationally relevant projects.	2, 6, 12, 54, 65, 110, 145, 148	
	Network usage	Use of network capacity should be maximised (e.g. through better real-time communication on balancing reserves and activation).	3, 67, 126	
13.2	**Access to electricity and network expansion should be priority for the EIB**			
	Off grid	Off-grid electrification investments can be economically viable alternatives to central grids and should be pursued.	2, 4, 94, 131	The EIB is promotes off-grid solutions, in particular outside the EU, as well as access to electricity, in line with the SDG 7 (see Chapter 4, paragraph 44, of the ELP).
	Back-up generators	Network redundancy reduces incentive to use polluting diesel generators.	2	
13.3	**Renewable integration**			
	Renewables connection	The grid can be a tool to tap the RES potential of isolated and remote regions or help them decarbonise faster (e.g. by allowing more RES integration).	1, 3, 4, 92	The EIB considers that it can provide high additional value by supporting investments taken for the long term (see Chapter 3 of the ELP). Electricity grids are an example of such long-term investments that will enable the transformation of energy systems (see Chapter 4 of the ELP).
	RES integration	The focus of the EIB should be on the integration of RES.	3, 6, 16, 71, 76, 78, 94, 95, 110, 113, 123, 134, 148	

	Topic	Summary of comments	Contributions	EIB response
	Decarbonisation potential	The EIB should support technologies that have a great potential for decarbonisation in a wide sense/scope.	2, 73, 90	The EIB supports the innovation and early stage deployment or investment in technologies contributing to higher flexibility of the energy system.
	Renewable integration	The EIB should finance transmission infrastructure only if it helps integrate renewables.	1, 3	
	Power-to-X	Power-to-X (also as long-term energy storage solution) should be supported.	3, 52, 140, 148	
	Flexibility	The focus of the EIB should be on technologies / investments to boost network flexibility.	6, 51, 134, 145	
13.4	**Gas network**			
	Capital intensive	Gas infrastructure is a capital-intensive activity and might require EIBs financing.	55, 86, 87, 118	The ELP will phase out support for energy projects directly dependent on fossil fuels, including infrastructure dedicated to natural gas (see Chapter 3, paragraph 18 to 22, of the ELP). The ELP will support projects designed to connect networks to new sources of low-carbon gases or adapt existing infrastructure to a credible and imminent high blend of low-carbon gas (see Chapter 4, paragraph 45, of the ELP).
	Equal footing with electricity	Gas networks should be put on equal footing with electricity.	3, 55, 65, 76, 117	
	Gas market	There are remaining projects to finalise the internal gas market.	1, 136	
	No financing for gas	The EIB should not support to fossil fuels-related assets (i.e. gas grids, including PCIs), or anything which may lead to lock-in on GHG emitting assets.	13, 16, 34, 47, 59, 68, 79, 95, 123, 144	
	Cost-effective emission reductions	The EIB should support gas network investments provided that they deliver cost-effective emission reductions.	1, 90	
13.5	**PCIs**			
	Interconnections	PCIs and more generally interconnectors should be the focus of the EIB.	4, 7, 15, 42, 47, 54, 65, 94, 96, 97, 103, 113, 130, 136, 148	Electricity PCIs are selected by the EC and are important projects for security of supply and the completion of the internal energy market. The EIB will continue to prioritise these projects.
	PCIs	PCIs should not be supported automatically.	5, 6, 56, 141, 144, 147	

	Topic	Summary of comments	Contributions	EIB response
	PCIs	The EIB should run own assessments independent from ENTSO-E, ENTSO-G and the EC.	7, 18, 34, 35, 56, 59, 144, 147	As explained in Chapter 3 par 21, all PCIs projects will need to meet the EIB's requirement, including a positive economic case under the EIB carbon cost assumption. Annex IV of the ELP states that all projects need to present a cost-benefit analysis and sufficient quantitative metrics to assess the benefits in terms of renewable integration and reliability. The EIB will phase out support to energy infrastructure directly dependent on fossil fuels by the end of 2020, including natural gas networks, storage and LNG terminals.
	Paris alignment	PCIs should be supported only if aligned with the Paris Agreement.	8, 18, 43, 47, 59, 62, 116, 141, 144	
	Security of supply	Security of supply implications should be assessed and included in the appraisal of PCIs.	1, 40	
13.6	**Digitalisation**			
	Smart grids	Smart grids should be supported to allow long-term efficiency and tap into decentralised resource potential.	14, 15, 51, 67, 70, 75, 110, 115, 124, 125, 130, 148	Digitalisation, the development of smart infrastructure and smart grids are expected to enable increasing participation of consumers and decentralised energy sources in energy markets. These projects will be encouraged by the EIB (see Chapter 4, paragraphs 40 to 44, and Annex III, of the ELP).
	Digitalisation	Digitalisation, automation, real-time network monitoring and control, predictive modelling and cybersecurity investments are a priority (potentially also as standalone projects and not just when bundled into "traditional" network investments).	7, 42, 70, 71, 75, 76, 90, 94, 96, 115, 123, 124, 128. 133, 136	
	Consistency with market trends	Digitalisation should be supported only if consistent with market trends .	1, 7	
	Not network investments	Digital technologies should not be treated as network investments.	1, 12	
	Digital, no	Digital technologies should not be financed since they usually have access to other instruments.	1, 71	

	Topic	Summary of comments	Contributions	EIB response
13.7	**Other networks**			
	District heating and cooling	District heating and cooling networks should be prioritised.	7, 10, 67, 125, 127	The rehabilitation or extension of existing district heating networks and the construction of new networks are eligible under certain conditions (see Annex IV of the ELP).
	Renewable heating	Renewable heating and cooling should be supported.	3, 10, 134	
	CO2 networks	Networks to transport CO2 could be mentioned in the ELP.	2, 80, 136	The EIB takes note of this comment and the interest in developing CO2 networks.
13.8	**Storage**			
	Storage	The EIB should support medium (at distribution system operator [DSO] level) or large-scale (at transmission system operator [TSO] level) electricity storage.	4, 9, 52, 54, 67, 75, 76, 124, 126, 148	Battery storage projects are considered as a new type of energy infrastructure that will contribute to increasing energy system flexibility and integrating renewables. Such projects are eligible for EIB support. The EIB considers batteries at an early stage of deployment and will assume that the long-term economic case can justify higher initial costs under certain conditions (see Annex III of the ELP).
	Reduce cost of capital	The EIB should work on reducing the cost of capital of storage applications for grids (which are not regulated).	2, 59, 124	
13.9	**Sector integration**			
	Sector coupling	Investments / technologies can foster sector coupling / integration.	2, 100, 115	See point 1.10. The EIB recognises the need to support projects that will contribute to increasing flexibility in energy demand, including heat, transport and industry.
	Cities	Integrated solutions for cities/areas are needed.	4, 67, 75, 125, 148	
	Transport	Electrification or “hydrogenation” of transport should be a focus of the EIB’s network activities.	2, 4, 61, 75, 88	
13.10	**Methodological considerations**			
	Local resilience	Network infrastructure can support local and resilient energy system.	2, 105, 124	The EIB takes note of these comments.
	No regret	The EIB should support no-regret investments of all kinds.	1, 124	
	Technology neutral	Technology-neutral is important to let the market decide.	2, 90, 96	See points 1.6 and 3.1.

	Topic	Summary of comments	Contributions	EIB response
	Cost-benefit analysis (CBA)	The EIB should use a life-cycle CBA analysis to screen projects (e.g. by using higher CO2 prices in CBAs as screening tool).	1, 96	See point 2.17.
	Geographical differences	No one-size-fits-all: the EIB should have approaches tailored at national level or it would risk discriminating less developed regions.	1, 34, 118	As mentioned in points 4.2 and 4.3, the EIB will engage with Member States on the basis of the NECPs to discuss how it can best support the investments needed for the energy transformation. The Energy Transition Package will also address specific needs in some countries.
	Exclusion	Additional criteria are needed to identify and exclude “bad” or “dirty” projects effectively.	1, 144	This is considered unnecessary given the decision to phase out support to energy projects reliant on fossil fuels.

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)?

	Topic	Summary of comments	Contributions	EIB response
14.1	**Stop financing gas infrastructure and fossil fuels**			
	Gas is not a transition fuel	Gas is incompatible with the EU's climate goals, i.e. net zero emissions by 2050.	6, 17, 34, 35, 43, 56, 59, 62, 64, 75, 79, 82, 93, 116, 134	As set out in Chapter 3, paragraphs 18 to 22, of the ELP the EIB will phase out lending to energy projects directly dependent on fossil fuels. This is based on a prioritisation of the long-term investment challenge.
	Past EIB gas lending	The 2013 Energy Lending Criteria did not ensure that the EIB transitioned to clean energy finance.	6, 113, 144, 147	All gas infrastructure projects were eligible under the 2013 Energy Lending Criteria and all projects financed by the EIB have been assessed per the EIB's standards, including requiring a positive CBA.
	Funding through Intermediaries	The EIB should stop financing fossil investments through intermediaries.	39, 59, 144	As set out in Chapter 1, paragraph 13, the ELP applies to all EIB operations in the energy sector, including when intermediated.
	Funding of companies with fossil-fuel activities	Companies with a high share of coal in their power and heat generation portfolios or which plan to develop new coal power capacities should not benefit from EIB loans. No major oil and gas corporations should be supported.	18, 27, 141, 144	See point 2.14.
14.2	**Role of a Public Bank**			
	No room for public money to support gas infrastructure	There is no room for public money to support gas infrastructure: gas is incompatible with the Paris Agreement and presents a risk of stranded assets. The EIB has a mandate to provide long-term investments compatible with the Paris Agreement.	34, 59, 43, 62, 64, 68, 79, 116, 134, 137, 144, 147	See point 14.1.
	Do not slow down the transition	The role of the EIB should be to accelerate and deepen the energy transition, not to slow it down by continuing to invest in gas infrastructure with long-term lock-in effects.	34, 59, 62, 64, 68, 79, 116, 134, 137, 144, 147	
	Signalling effect	The EIB lending policy has a strong signalling effect for other banks and financiers. Stopping all	59, 68	

	Topic	Summary of comments	Contributions	EIB response
		support for fossil-fuel projects would reinforce the reputation of the EIB.		(see previous page)
	Do not finance detrimental projects	The EIB should focus only on sustainable projects that are not detrimental to the Paris Agreement.	18, 59, 62, 64, 68, 79, 116, 134, 137, 144, 147	
	Finance RE and EE instead of gas	The EIB should avoid investing in unabated fossil fuel projects that are a source of GHG emissions and are not Paris aligned. Instead, the EIB should focus on energy efficiency and RES (and maybe CCS).	8, 16, 17, 18, 34, 35, 38, 47, 49, 56, 59, 62, 64, 68, 79, 80, 82, 92, 93, 95, 103, 108, 113, 116, 122, 123, 125, 129, 133, 134, 137, 141, 144, 145, 147	Renewable energy and energy efficiency projects are eligible under the ELP and represent the vast majority of EIB lending in the energy sector.
14.3	**Issues with new gas infrastructure**			
	Lock-in of emission	Fossil fuel infrastructure, including PCIs, creates a lock-in of gas consumption in the long term and is not compatible with fast decarbonisation. The physical lifetime of these investments exceeds the timeframe by which the world should reach net zero emissions.	8, 16, 17, 18, 34, 35, 38, 43, 47, 49, 56, 59, 62, 64, 68, 79,82, 92, 93, 95, 103, 108, 113, 116, 122, 123, 125, 129, 133, 134, 137, 141, 144, 145, 147	See points 14.1 and 14.2. Also see Chapter 3, paragraphs 18 to 22, of the ELP. As set out in Annexes III and IV of the ELP, CCS and the production of low-carbon gases will be eligible for EIB support.
	Security of supply not a justification	Security of supply should not be used as an excuse to lock-in the use of fossil fuels.	17, 59, 62, 141, 147	
	Low-carbon gas and CCS not a justification	The future availability of CCS or renewable gases is not sufficient to justify more investments fossil fuel assets. Low carbon gases will realistically only	18, 34, 35, 56, 59, 79, 141, 144, 147	

	Topic	Summary of comments	Contributions	EIB response
		play a minor role that is exaggerated by the gas industry. CCS is not a viable alternative.		(see previous page)
	Stranded asset risk	Gas projects risk becoming stranded assets.	17, 34, 56, 59, 62, 79, 113, 137, 141	
	Existing gas infrastructure is sufficient	Existing gas infrastructure is sufficient to meet demand and ensure SoS. The EC's long term vision scenarios see a significantly reduced role for gas of all types compared to current levels. There is no convincing analysis demonstrating the volumes of gas that will be needed to ensure system adequacy.	34, 82, 116, 134, 144, 147	
14.4	**Methods to assess new gas infrastructure and PCIs**			
	Paris Alignment	The EIB should test Paris alignment before supporting projects.	47, 144	See point 1.2.
	NDCs not Paris Aligned	Alignment with NDCs is not equivalent to alignment with the Paris Agreement.	17, 137	The EIB takes note of this comment. See point 16.1.
	EIB economic appraisal	The EIB economic appraisal of fossil fuel projects (gas projects mainly), despite referring to shadow carbon pricing, currently shows weaknesses regarding the lifetime of projects.	144, 147	See point 14.1. Annex V of the ELP presents updated EIB carbon pricing in line with the available evidence on meeting long-term climate targets. In general, this range of costs will be applied to appraise energy projects.
	Strengthen EPS and exclude gas boilers	Downstream gas investments should be discouraged through a strengthened EPS and an exclusion for gas-fired boilers for heating.	18, 47, 59, 62, 64, 79, 82, 92, 130, 133, 137, 141, 144, 147	
	CBA and CO2 price	The EIB should do a CBA, using the CO2 price needed for the 2050 goals, to strike the right balance for the role of gas.	133	
	EIB trade-offs	The EIB approach towards natural gas is not sufficiently clear/robust, in particular how it trades energy prices and security of supply off against climate impacts.	132	

	Topic	Summary of comments	Contributions	EIB response
	Do not rely on ENTSOG analysis	PCI projects are not clearly justified and should be scrutinised by the EIB's own analysis, not relying on EC or ENTSOG.	18, 34, 47, 56, 144, 147	The EIB takes note of this comment in the context of appraising gas operations prior to the deadline of end 2020.
14.5	**Limitations and conditions for supporting gas infrastructure**			
	Conditions	The EIB should only finance natural gas in exceptional cases and if it does not displace less carbon-intensive fuels. Gas investments should be justified by security of supply considerations only if it is demonstrated that there is no zero-emissions alternative and if the project does not increase fossil fuel demand over the lifetime of the project.	33, 40, 54, 55, 65, 69, 74, 76, 81, 82, 86, 87, 90, 96, 98, 100, 103, 105, 106, 108, 110, 112, 114, 115, 118, 120, 127, 128, 136, 137, 140, 148	See point 14.1.
	Market appetite	Gas should be considered only under the necessary condition that there is strong market appetite.	75	
	Gas single market and interconnectors	Adding a few missing links would complete the European gas market, allowing all countries to benefit from a more diversified and secure energy supply.	55, 65, 69, 96, 112, 135, 136	The EIB acknowledges the role that fossil fuels will continue to play through to 2030 in general and the need to complete the internal gas market in particular (see Chapter 3, paragraph 21, of the ELP). However, the ELP focuses the EIB on supporting the long-term dimension of the transition towards low carbon gases.
	CCS	CCS can play a pivotal role in ensuring that gas infrastructure is environmentally and economically viable.	55, 80, 107, 112, 117, 136, 148	CCS projects are eligible for bank support (see Annex III of the ELP).
14.6	**Do not stop financing gas infrastructure**			
	Gas infrastructure must be eligible	The EIB should not only ensure that energy projects are compatible with long-term climate targets, but also with EU energy policy and other EU environmental policies (such as air quality, circular economy and the bioeconomy). The EIB plays a key role in providing financial resources	54, 55, 65, 67, 69, 71, 73, 74, 76, 80, 90, 96, 101, 106, 114, 117, 118, 135, 136, 140	See points 14.1 to 14.5. As set out in Annex II of the ELP, high efficiency gas-fired CHP production will be eligible for support. In addition, the EIB will continue to support efficient gas boilers included within building renovation programmes. In both cases, the EIB considers that these investments support the energy transition path.

	Topic	Summary of comments	Contributions	EIB response
		that enable the implementation of key investments in the gas sector.		
	Gas is compatible with climate change.	Natural gas will continue to play an important role in the energy transition and the European energy mix and makes the effort less expensive and disruptive.	2, 7, 55, 65, 71, 73, 74, 80, 86, 87, 90, 92, 96, 98, 105, 106, 107, 112, 115, 117, 118, 136, 148	See the EIB's responses to Q1 and Q4.
	Gas networks	Gas infrastructure projects contribute to reducing greenhouse gas emissions, improving air quality and supporting the development of renewable energy sources. Access to efficient gas networks lowers the carbon footprint of hard-to-decarbonise sectors. Energy-intensive industry may still need gas as feedstock.		
	Coal to gas switch	With high carbon prices, gas-fired generation will replace other conventional technologies (coal). The EIB should prioritise a switch to efficient gas-fired generation.	74, 114	See points 14.1 to 14.5.
	Cleaner than other fuels	Gas should be supported if it replaces more polluting generation and heating systems (e.g. wood, coal and oil).	15, 65, 69, 74, 77, 86, 87, 96, 98, 105, 106, 112, 114, 115, 117, 118, 128, 135	
	Air pollution	Gas investments should be considered if they reduce CO2 emissions and other air pollution resulting from burning high emission and low-quality fuels.	96, 106, 136	See points 14.1 to 14.5.
	Gas for power generation	Gas infrastructure will still be used with low-carbon gas. Gas provides greater reliability and competitiveness. Gas projects contribute to the flexibility and reliability of the national electricity system and reduce the specific carbon content of electricity generation.	12, 40, 65, 67, 69, 76, 77, 86, 96, 106, 112, 114, 117, 118, 128, 135, 136, 140	See points 14.1 to 14.5.

	Topic	Summary of comments	Contributions	EIB response
	Affordability	The role of gas is key to ensure affordability to all consumers in the framework of the energy transition. It is important to include considerations of affordability and security of supply, in addition to environmental sustainability.	69, 96, 106, 114, 140	See the EIB's responses to Q1 and Q4.
	Sector coupling	Gas infrastructure is needed for sector coupling. RES needs flexible gas generation for balancing. Natural gas is an ideal complement to RES (e.g. highly flexible and efficient gas engines).	54, 69, 96, 100, 106, 110, 112, 118, 140, 148	
	Gas capacity still needed	Although in the long-term gas demand in the Union is expected to decrease, the capacity demand may remain at the same level or even increase.	74	
	Efficiency	Make the existing gas infrastructure more energy efficient, secure and highly performant through investments, for instance, in reducing methane emissions, refurbishment, digitalisation, cybersecurity.	65	
14.7	**Gas security and European gas market**			
	Security of supply	Gas infrastructure (including storage) as well as gas production facilities contribute to security of supply within Europe.	33, 37, 76, 86, 87, 92, 105, 135	See point 14.5.
	LNG terminals	LNG terminals reduce the EU's dependence on pipeline gas imports from neighbouring countries, which increases gas security.	76	
	Gas capacity needed	Gas power plants and gas infrastructure are important for security of supply, especially PCI projects and those projects that aim to bring benefits for consumers (through market integration, price convergence, competition, renewables integration, security of supply and liquidity).	76, 86, 92, 105, 135	

	Topic	Summary of comments	Contributions	EIB response
14.8	**Technological neutrality**			
	Picking winners	The EIB should avoid picking winners and allow for new low-cost options. Efficiency and decarbonisation should be prioritised over electrification in the short term.	12, 55, 65, 73, 76, 90, 94, 96, 101, 105, 106, 112, 117, 118, 136, 140	See point 1.4.
	Gas reduces need for new electricity infrastructure	It is possible to take advantage of the gas infrastructure already built in order avoid unnecessary costs for consumers building new electricity infrastructure.	101, 106	
	Storage and flexible gas power	Combination of energy storage and flexible gas generation is most effective and economical.	76, 136	
	Gas vs electricity	Transmission of energy in the form of natural gas is quicker, more efficient and cost-competitive than full electrification. Full decarbonisation of power is not viable / feasible. Battery storage is not feasible. Energy transformation requires flexibility in terms of the transitional fuels and technologies.	65, 112, 118, 136, 140	
	Different pathways possible	There are various pathways where renewable and decarbonised gases can fuel the heat, power, industry and land/marine transport sectors.	96	
14.9	**Gas distribution**			
	Consumer choice	The EIB should consider the importance of gas distribution grids in terms of both industrial and domestic consumer choice as well as energy costs.	70, 105, 114, 118, 148	See points 14.1 to 14.5. The EIB's approach towards gas infrastructure applies to distribution networks.
	Quality heat	Gas contributes to high-quality heat supply.	114	
	Reduction of leakages	The EIB can have a role in addressing fugitive emissions associated from hydrocarbon production, transport and storage.	82, 90, 96, 106, 107	Gas leakage mainly takes place at distribution level. The EIB's approach towards gas infrastructure applies to distribution networks.

	Topic	Summary of comments	Contributions	EIB response
14.10	**Financing considerations**			
	Financing tenors	Reducing financing tenors can have undesirable impacts on the investment framework.	65, 96, 106, 140	For eligible projects, the EIB will maintain the current project maturities in line with the underlying economic life of the technology.
	No risk of stranded asset	Gas infrastructure will continue to be used to provide flexibility, ensure security of supply and integrate low carbon gases and therefore does not risk becoming stranded asset. Optimisation of assets is ensured in ENTSOG's Ten-Year Network Development Plan (TYNDP). Even gas infrastructure with low utilisation might have an economic return and provide social welfare for consumers.	54, 65, 81, 96, 136, 140,	See points 14.1 to 14.5.
14.11	**Geographical focus for gas**			
	Local circumstances and long-term climate objectives	Meeting long-term climate objectives may vary across EU countries depending on local circumstances. Gas is a sustainable and affordable energy source.	12, 55, 69, 71, 96, 101, 106, 118, 134	See the EIB's responses to Q1 and Q2. See point 1.8.
	Member States with high carbon intensity	Natural gas is a cost-effective climate mitigation option in some Member States with high carbon intensity (Central/Eastern EU).	12, 69, 96	
	Less developed gas markets	Gas markets are well-developed in North-West Europe. This situation should be extended to other parts of Europe in order to reach a comparable level of liquidity, diversification, competition and price convergence.	69	
	Air pollution	Gas can reduce air pollution in Member States using high emission and low-quality fuels, especially in the winter period.	12, 69, 96	
	Poland	In Poland, the EIB can play a special role helping Poland to "leapfrog" to the most innovative and clean solutions.	134	

	Topic	Summary of comments	Contributions	EIB response
	Gas outside EU	Access to gas in developing markets should be supported provided it is cost-competitive and consistent with the Paris Agreement.	2, 15, 82	See the EIB's responses to Q4 and Q16.
	Avoided deforestation	Gas outside the EU is avoiding deforestation (i.e. use of wood for cooking).	2	
	Serbia	In Serbia, the EIB should focus on developing domestic gas infrastructure and interconnecting infrastructure between neighbouring countries.	15	
14.12	**Low-carbon gases (biogas, hydrogen, power-to-X), argumentation in favour**			
	Low-carbon gas	Low-carbon gas, including renewable methane and hydrogen, can help achieve a net-zero emission energy system in the European Union.	33, 54, 65, 67, 69, 71, 76, 80, 90, 96, 98, 117, 135, 136	As set out in Annex II of the ELP, projects for the production of low-carbon gases are eligible for EIB support, alongside their connection to gas networks. In addition, the EIB is able to support the adaptation of existing infrastructure towards a credible, imminent use of a high blend of low-carbon gases. With future innovation and commercial development, renewable gases, blue or bio-methane and green hydrogen will have a role to play. The EIB will monitor closely – and indeed seek actively to support – developments in these carbon abatement technologies.
	Hydrogen (blue)	Blue hydrogen with CCS can help accelerate decarbonisation.	48, 65, 67, 69, 73, 74, 80, 86, 87, 88, 90, 96, 98, 101, 105, 107, 112, 114, 115, 117, 118, 145, 148	See points 1.10 and 1.15.
	Hydrogen (green)	Green hydrogen can ultimately replace blue hydrogen without the need for extra investment in grid infrastructure.	73	
	Power-to-X	Power-to-X and hydrogen production enable decarbonisation of several sectors while providing balancing capabilities to the power system.	100, 148	

	Topic	Summary of comments	Contributions	EIB response
	Renewable hydrocarbons	Renewable hydrocarbons will contribute to decarbonise the gas grids and to reach EU energy and climate targets. They are key to providing reliable energy with comparable or better levels of emissions, efficiency, affordability and reliability.	65	
	Low-carbon gas advantages	Gas plants are capable of operating on renewable or low carbon fuels.	87	
	Renewable gas vs electricity renewables	Low-carbon gases have low or neutral impact on total emissions and positive impact on the circular economy. Renewable/low-carbon gases have lower system costs (flexibility and storage) compared to variable renewables.	101	The EIB takes note of these comments.
	Waste management and agricultural benefits	Low-carbon gases have unique positive externalities (e.g. waste management and agricultural benefits, avoided electricity grid reinforcement costs).	101	
	Industries difficult to decarbonise	There is only a small amount of renewable gas available and it should be used by the industries hardest to decarbonise.	62, 126	
	Infrastructure for low-carbon gases	Support is required to repurpose gas networks to accommodate a high level of blending of hydrogen with natural gas.	14, 55, 65, 67, 73, 74, 80, 87, 88, 90, 96, 98, 101, 105, 111, 112, 114, 117, 118, 120, 126, 136, 145, 148	See point 14.12.
	Reverse flows for low-carbon gases	Development of reverse flows from the distribution to the transmission grid will be required in order to maximise biomethane injection/production.	101	
	Electrolysers	Electrolysers can be a competitive solution in some contexts (e.g. with significant curtailment of wind). Significant public and private funding will be required to upscale the capacity of electrolysers.	67	

	Topic	Summary of comments	Contributions	EIB response
	Synthetic fuels	The EIB should support the infrastructure required for the production of synthetic methane or synthetic methanol, including CCU/CCS.	105	(see previous page)
	European funds	European funds (Connecting Europe Facility [CEF], EU Regional and Cohesion Funds including the European Regional Development Fund) should be extended and utilised to promote green gas projects.	101	These funds are managed by the European Commission and not by the EIB.
	Power-to-gas	The EIB should focus only on technologies such as power-to-hydrogen or power-to-ammonia and not other power-to-X technologies.	61, 73, 87, 100, 112, 114, 117, 120, 148	As set out in Annex III of the ELP, the EIB intends to support these projects and innovation in this area.
	Lower risk of stranded assets	Gas infrastructure can be used to transport both hydrogen and biomethane in 2050, mitigating the risk of stranded assets.	12, 55, 65, 67, 70, 71, 73, 74, 76, 77, 86, 96, 98, 107, 114, 135	The EIB takes note of this comment.
14.13	**Low-carbon gas – arguments against**			
	Renewable gases not all cleaner	Not all forms of "renewable" gas are cleaner than fossil fuel gas. Support to hydrogen or bio-fuels should be provided only if they do not entail an increase in emissions.	43, 56, 59, 75, 79, 131, 137, 141, 147	See point 14.1. The EIB will apply a consistent framework to assess the economic case for low-carbon gases, reflecting as appropriate arguments on the scale of deployment and innovation. The EIB will continue to monitor the development of a regulatory framework for low-carbon gases, including in terms of emissions. For the time being, the EIB will apply an emissions threshold consistent with its approach towards renewable power generation.
	Potential insufficient	Expected production of clean gas is only a fraction of current gas supplies and will put pressure on animal feedstock supply.	59, 79	
	Investments required	Low-carbon gas requires significant infrastructure investment.	131	
	Costs	Production and injection of synthetic methane from hydrogen has a low efficiency and is an expensive solution.	131	
	Gas greenwashing	The EIB should take with caution the emerging narrative of the gas sector on "greening itself"	141, 147	

	Topic	Summary of comments	Contributions	EIB response
		thanks to renewable gas, hydrogen, power-to-X, etc.		(see previous page)
	Existing network capacity sufficient	The capacity of existing gas infrastructure is more than sufficient to accommodate low-carbon gases. The EIB should be cautious when considering the repurposing of gas transport infrastructure for lower carbon gases.	56, 79, 147	
14.14	**Gas in transport (compressed natural gas [CNG] and LNG infrastructure for transport, hydrogen)**			
	Refuelling infrastructure	The ELP must facilitate the development of alternative transport fuels infrastructure (e.g. hydrogen). Refuelling infrastructure should be a focus of the EIB's investment.	77, 88, 96, 106, 114, 117, 128	The ELP does not cover mobility projects. Infrastructure dedicated to providing fuel for transportation is covered by the EIB's Transport Lending Policy. Under the current policy, the EIB supports alternative transport fuels.
	Lower emissions and other benefits	Natural gas and biomethane can reduce emissions from the transport sector and provide additional benefits in terms of cleaner air, comfort and choice.	114	
	Gas still needed in transport	Gas-fuelled transport can reduce CO2 faster than e-mobility. Heavy-duty vehicles (HDV) and ships need gas.	96	
	Do not support gas for transport	The benefits of gas in transport are disputable. Using natural gas for transport is as bad for the climate as using oil, diesel or conventional marine fuels, given new evidence on life-cycle costs.	18, 34, 56, 61, 79, 147	
	Long-term decarbonisation solutions	Long-term decarbonisation requires a strong shift to electrification in road transport, a shift towards renewable hydrogen/renewable ammonia in shipping (on routes that cannot be electrified) and renewable power-to-liquids in aviation. These technologies may be currently more expensive, but offer a clear and realistic pathway to zero-emissions transport, when complying with adequate sustainability rules.	61	

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?

	Topic	Summary of comments	Contributions	EIB response
15.1	**Stop financing upstream hydrocarbons**			
	Fossil fuels are not an option	The EIB should stop financing natural gas. Replacing coal by gas is not an option. Gas is like any other fossil fuel.	2, 6, 8, 9, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 32, 34, 35, 37, 38, 39, 42, 43, 46, 47, 49, 50, 56, 59, 62, 64, 68, 79, 80, 82, 83, 85, 93, 95, 108, 122, 123, 127, 129, 130, 133, 134, 137, 141, 144, 145, 147	The EIB will phase out support to fossil-fuel energy projects (see Chapter 3, paragraphs 18 to 22, of the ELP). This includes upstream oil or gas production.
	Lock-in	Security of supply should not be used as an excuse to lock-in the use of fossil fuels.	59, 144	
	Focus on EE and RE	The EIB should focus on green energy projects, in particular those related to energy efficiency and renewable energy, including small scale, people-owned renewable energy projects.	8	
	Negative emissions technologies	Minimising the need for negative emissions technologies is more precautionary.	6	
	Role of a public bank	As a public bank, the EIB should act in the public interest and do what is needed to save the climate. The EIB's support could be seen as a subsidy to fossil fuels. The public signal (for other banks and financiers) of ending support for any upstream oil and gas project will be much more important than	16, 59, 62, 134	See point 2.14.

	Topic	Summary of comments	Contributions	EIB response
		the added value (if at all) of the EIB's involvement in such projects. This would reinforce the EIB's reputation, in line with its mandate to finance long-term investments. Lending to fossil fuel production creates conflicting support that disincentives the EIB's own lending to renewable energy.		(see previous page)
	Intermediaries	The EIB should introduce criteria to ensure that funds, quasi-equity or R&D project do not end up being used for fossil energy.	59, 133, 137, 141	As stated in Chapter 1, paragraph 14, of the ELP, the same eligibility criteria outlined above will apply to intermediated operations, i.e. no fossil fuel production will be supported.
	Companies	The EIB should stop financing companies that keep exploiting coal or do not prepare a decarbonisation plan. It should not support major oil and gas corporations either.	27, 46, 137	See point 2.14.
	Projects reducing emissions and CCS	Some upstream projects could result in GHG emission reductions. Developments that would e.g. allow the expansion of co-production of biofuels, expansion of a refinery's hydrogen capacity, production of additives with higher biofuel percentage or providing a more suitable basic oxygen blendstock (BOB) could be consistent with decarbonisation.	31, 33, 64, 87, 88, 96, 107	As set out in Annex II of the ELP, projects linked with the production of low-carbon gases are eligible for the EIB's support.
	Framework for Paris alignment	The IEA SDS is not aligned with the Paris Agreement. It does not reach the 1.5 °C target. The EIB should not rely on this scenario but use a real decarbonisation scenario.	35, 64, 144	The EIB takes note of this comment, and points out that it does not formally rely on the IEA SDS scenario. See point 1.4.
15.2	**Continue financing upstream hydrocarbons**			
	Import dependence	Indigenous gas production should be supported in order to limit import dependency.	65, 74, 118	As set out in Chapter 3 of the ELP, the EIB will focus on meeting the long-term investment challenge associated with 2030 targets. As a consequence, the EIB will no longer support upstream oil or gas production. This reflects the prioritisation of the EIB and does not say anything about the importance of EU energy policy goals, including limiting import dependency.
	EU policy	The EIB's framework should not only ensure that energy projects are compatible with long-term climate targets, but also with EU energy policy.	69	
	Oil investment needed	Significant levels of investment are required to ensure sufficient supplies of oil to meet demand in	55, 136	

	Topic	Summary of comments	Contributions	EIB response
		2040 and for those sectors where the energy source is hard to replace, such as some industrial processes, maritime transport, aviation and heavy-duty road vehicles.		(see previous page)
	Technology neutrality	Technology neutrality is important in the climate transition. There is a need for a case-by-case analysis, not a priori exclusion of fossil fuels. With CCS/CCU, blue and green hydrogen, renewable feedstock and other low-carbon technologies, hydrocarbons can be part of a low-carbon energy mix.	58, 70, 74, 90, 107, 112, 115	
	Life-cycle emissions	The EIB should take into account life-cycle emissions (fuel cell or synthetic methane has lower emissions than battery cars).	67, 96	
	Not viable without fossil fuels	A transition excluding fossil fuels with innovative solutions, an improved environmental performance and more forward-looking R&D will not be viable or will end up preserving the status quo.	37, 55, 58, 67, 114, 115	
	Gas differs from oil	Natural gas (and other gases) can replace more highly polluting fuels and should remain in the energy mix.	2, 7, 12, 67, 96, 106, 114, 115, 117, 118	

Q16: Where can the Bank most usefully focus its support – either financial or advisory – to meet the Sustainable Development Goals outside the EU and better support the scaling up of renewables, energy efficiency and electricity grids in a developing country context?

	Topic	Summary of comments	Contributions	EIB response
16.1	**Climate Action**			
	EIB Climate Action	The EIB should focus its efforts outside the EU more on Climate Action and the low-carbon transition increasing the target Climate Action share outside the EU from current levels (35%), to ensure alignment with the Paris Agreement.	6, 18, 34, 38, 55, 59, 79, 87, 100, 130, 133, 141, 144, 147	The EIB takes note of these comments and the view that the Climate Action should be the overarching theme of the EIB's energy activity outside the EU. To a large extent, this is already the case. Climate change mitigation has additional benefits in terms of reduced local air pollution. The EIB intends to support projects that increase the ambition of NDCs that will be updated on a regular basis (every 5 years) as part of the Paris Agreement.
	NDCs	The EIB should ensure alignment with NDCs.	112, 124, 136	
	NDCs vs Paris Agreement	The EIB should not consider alignment with NDCs as equivalent to alignment with the Paris Agreement.	137, 147	
16.2	**Access to electricity and off-grid electrification**			
	Access to electricity	The EIB should focus on universal access to sustainable electricity in line with the SDG 7.1.	2, 6, 38, 42, 55, 64, 65, 121	Access to energy is a priority area for the EIB's energy activities outside the EU. The EIB sees a role for the provision of sustainable energy through both centralised electricity systems and decentralised systems that are often an immediate and cost-effective means to provide access to clean energy.
	Off-grid electrification	The EIB should support decentralised off-grid systems, including micro-grids.	2, 6, 64, 121	
16.3	**EE and RE**			
	Renewables	The EIB should support further RE including the needed network infrastructure.	6, 48, 75, 76, 87, 143	These are indeed the priorities of the EIB outside the EU. In regions where the growth in energy demand is often high, new clean energy generation capacities, including the transmission network, are a priority to reduce carbon emissions from the energy sector. Energy efficiency measures are equally important to reduce existing inefficiencies and demand growth.
	EE	The need for EE improvements should be a focus area for the EIB's support.		
	Small-scale RE	The EIB should prioritise small-scale RE.	147	

	Topic	Summary of comments	Contributions	EIB response
16.4	**Gas infrastructure and fossil fuels**			
	Access to gas	The EIB should support projects that increase access to gas, notably allowing the switch from more harmful and polluting fuels.	2, 65, 76, 90, 96, 106, 112, 117, 136	See point 2.14. The EIB will phase out support to energy infrastructure directly dependent on fossil fuels by the end of 2020 (see Chapter 3, paragraphs 18 to 22, of the ELP). This applies to all of the EIB's operations, both inside and outside the EU.
	Gas infrastructure	Gas supply options could limit the use of coal for baseload and system flexibility.	65, 76, 96	
	Clean gas	Non-EU countries produce and trade clean gaseous fuels.	90	
	Low-carbon fuels	Support to e-fuels and hydrogen.	5, 54, 88	See the EIB's responses to Q8 and Q15.
	No EPS exception	There should be no EPS exception outside the EU.	6, 76, 83, 95, 103, 141	See the EIB's responses to Q9.
16.5	**Support to specific types of projects outside EU**			
	Storage	The EIB should support storage investments.	14, 143	Electricity storage projects are eligible for the EIB's support, provided that technical and economic criteria are met (see Chapter 4, paragraph 35, and Annex III of the ELP).
	Nuclear	Nuclear has an important role to play.	129	The EIB activities in the field of nuclear energy require a positive opinion from the European Commission in accordance with the EURATOM Treaty (see Annex II of the ELP).
	Large-scale projects	Focus on large-scale infrastructure.	112	Outside the EU, the EIB can finance large-scale projects and smaller-scale energy projects, in general via intermediaries.
	RE manufacturing	Supporting also other parts of the sustainable energy value chain, the EIB could reach additional development impact and foster local ecosystems.	6, 76	Through various, mostly intermediated, structures, the EIB supports EE service providers, roof-top PV installers, off-grid solar home system companies and also equipment and solution providers. However, the EIB follows the principles of the EU acquis outside EU and procurement rules do not allow local content requirements.

	Topic	Summary of comments	Contributions	EIB response
16.6	**EIB lending volumes outside the EU**			
	Continue or increase current activity levels	The need for energy projects and Climate Action impacts can be particularly strong outside the European Union. The EIB should therefore continue or increase its role in these fields outside the EU.	40, 70, 75, 83, 97, 100, 110, 148	The EIB recognises the increasing share of new energy infrastructure and GHG emissions from countries outside the European Union, in particular developing and emerging economies. For this reason, support to a sustainable, low-carbon energy infrastructure trajectory can have a large impact for the achievement of climate goals and at the same time universal energy access (SDG 7). The EIB's activities outside the EU are to a large extent based on mandates received from the EC and EU Member States to pursue defined development goals. The EIB does not share the view that its investments are focused on large projects with high environmental and social impact. In fact, the EIB supports various small- to medium-scale projects and all projects are assessed against the EIB Environmental and Social Standards.
	Reduce EIB financing outside the European Union	The EIB should do fewer energy projects outside the EU: either because investment needs inside the EU are high or because of an alleged lack of focus on RE and small scale projects outside the EU.	12, 147	
16.7	**Regional focus**			
	Different regional focuses and priorities	The EIB should focus support on specific regions due to development or climate impacts, role of European standards or business potential. The EIB should increase focus on the following: EU Neighborhood countries; Western Balkans, with a focus on buildings ; Least developed countries; low-income countries; Countries with low energy access; Island states mostly affected by climate change; Latin America; Countries that are lagging in Climate Action efforts, experience strong energy demand growth or have large EE potential.	38, 40, 41, 42, 55, 75, 124, 133, 141, 147, 148	The EIB takes note of these comments. Operations are prioritised based on various factors including the development impact and the EIB's mandates. These include support to the EU Neighborhood and developing countries.
	Regional integration	The EIB should support regional integration projects.	42, 90	The EIB supports regional integration across countries, building on the experience of the EU internal energy market.

	Topic	Summary of comments	Contributions	EIB response
16.8	**Support to governments and promoters**			
	Technical assistance	The EIB should provide TA for policy advice, investment climate and project support. TA and blending activities are needed and play an important role. The EIB should take a more prominent role in helping to define and build proper energy policy in weaker countries, support the process of Paris alignment, provide training to financial institutions and promote technology adoption.	55, 67, 82, 100, 112, 121, 137, 143	The EIB recognises the importance of TA and often implements TA assignments to support high-quality project development and implementation, compliance with ambitious standards, etc. When developing its TA programmes, the EIB can also consider to include relevant policy advice functions.
	Dissemination of good practices	The EIB's role should be to disseminate good industry practices in environmental and social matters, technical quality standards and project implementation. In addition, the EIB should play a role in leading efforts to fight climate change and associate with like-minded partners, as well as convincing others to adopt similar standards. The same standards should be applied within and outside of the EU.	54, 75, 83, 87,92, 110, 121, 141, 145, 147	The EIB recognises its role in supporting the development of and compliance with good international standards and practices. These standards are key to the EIB's engagement and lead to association with like-minded partners such as development finance institutions (DFIs), project sponsors, other financiers, etc. A specificity of the EIB is its strong link to European policies and standards. The EIB ensures that all of its projects comply with the principles of key European legislation (e.g. environmental and social, procurement).
16.9	**Specific topics**			
	Gender	It is important to have a gender sensitive approach.	11	The EIB takes note of these comments.
	United Nations - Economic Commission for Europe (UN ECE)	Include reference to Energy Union and UN ECE in the ELP.	41	
	Political risk	The EIB should explore how to provide political risk insurance and credit enhancement for cross-border private-sector projects.	112, 117, 124	

	Topic	Summary of comments	Contributions	EIB response
	Airports	The EIB should not finance airports because of their negative climate impact. Instead, support for cleaner air transport is needed.	60	See point 14.14. The ELP does not cover mobility projects, which are dealt with in the EIB Transport Lending Policy.
		The carbon footprint of airports should be improved and strengthened.	60	
	Maritime sector	The maritime sector requires support, in particular clean fuels, energy storage, refuelling infrastructure.	88	
	Process	The EIB is too slow and/or bureaucratic.	13, 55, 75, 94	See point 11.5.
		Internal technical due-diligence teams make project approval slower, duplicate the Lenders Technical Advisors and increases overall EIB fees.	13	
		The EIB process is not suitable if a company has to adjust the project's characteristics to the requirements of the EIB.	127	
		Lighter due diligence is needed for small-scale EE projects on Project Finance structure.	67	
	Risk management	The EIB's risk management approach is too conservative / the contract clauses too strict.	13	As mentioned in the introduction of the ELP, the EIB operates within its credit risk principles.
	Energy intensive industries	The EIB should not finance energy-intensive sectors.	3	The ELP does not generally cover the EIB's support to industry.
	EIB policies	The EIB should have lending policies for all sectors.	55, 133	The EIB has separate lending policies for the transport sector and wider social dimensions are dealt with in the EIB Environmental and Social Standards. The EIB actively cooperates with the EC, EU institutions and other IFIs.
		The EIB should reinforce the gender dimension in its activities.	11	
		The EIB should ensure effective cooperation and coordination with the EC, other EU institutions and IFIs.	39, 124, 133	