



Assessing the potential use of financial instruments in the low carbon economy in Spain in the 2014/2020 programming period

A study in support of the *ex-ante* assessment for the potential future use of Financial Instruments

Executive summary – English version

October 2017

Scope of the ex-ante assessment

The Institute for Energy Diversification and Saving (IDAE) has requested that EIB carry out this ex-ante assessment to analyze the opportunities for implementing financial instruments (FIs) at national level, in accordance with the definitions of Regulation (EU) No. 1303/2013 of Common Provisions Regulation.

IDAE has been designated as an Intermediate Body to manage around EUR 2.1 billion of resources under Thematic Objective (TO) 4 of the Sustainable Growth Operational Program 2014-2020 (SGOP).

In line with SGOP investment priorities, this ex-ante assessment focuses on the low-carbon economy and in particular on the following sub-sectors:

1. Buildings.
2. Energy Services Companies (ESCOs).
3. Biomass.
4. Industrial sector.
5. Local entities.

The ex ante assessment was developed in two phases:

1. **Market gap analysis**, where potential demand and supply of finance in the low carbon economy sector were reviewed and quantified, in order to estimate the existing financing gaps and the underlying reasons. In this phase a review of experiences in FIs covering low carbon economy was also performed.
2. **Investment strategy**, this included an assessment of available options in terms of appropriate financial products that could be developed to respond to the financing gaps identified. It identified the most appropriate FIs that could be implemented and defined their proposed characteristics and expected results.

Demand analysis

The volume of potential financing demand for energy efficiency (EE) initiatives was estimated to be EUR 14 billion euros per year, in the 2019 – 2023 period.

The largest part of potential financing demand is related to three sectors:

- The building sector (private homes, collective residences, hotels, offices, shopping centers, social buildings and hospitals) represents approximately 86% of total potential demand (about EUR 12 billion per year). This amount is mainly related to the EE interventions in residential buildings, where the potential

financing need is around EUR 9.1 billion per year. This was found to be mainly due to the average old age of the Spanish housing stock and therefore, to its low level of energy efficiency. It is estimated that about 84% of the 25 million existing homes have an energy rating equal to or less than "E", within a scale from "A" (better) to "G" (worse).

- The public sector accounts for approximately 11% of total potential demand (EUR 1.5 billion per year). Initiatives with the largest potential needs are public lighting (around EUR 760 million per year), EE in public facilities (around EUR 433 million per year) and sustainable urban transport (about EUR 342 million per year).
- The industrial sector, considering SMEs, mid and large caps, has produced an estimate of demand of around EUR 126 million per year.

The other two subsectors have also shown relevant potential needs, in particular:

- EUR 260 million per year for biomass boilers (on the basis of objectives of the National Renewable Energy Plan 2011-2020)
- EUR 77 million per year for Small and medium-sized Energy Service Companies (ESCOs).

Supply analysis

Private financing supply for EE initiatives is estimated in about EUR 2.8 billion per year. About 95% of this amount comes from banking sector while the remaining part comes from venture capital investments, ESCO financing and, residually, from other sources, like crowdfunding.

Banks focus mainly on the solvency of the applicant in assessing financing applications, while the actual project financial viability does not seem to be the main pre-requisite in the majority of cases.

On the other hand, the **public financing** supply for EE initiatives is estimated in about EUR 1 billion per year.

The main suppliers of public finance identified are:

- National public resources channelled through IDAE and other national and regional entities (about EUR 300 million per year).
- ESI Funds (TO4) managed at the regional level through Regional Operational Programmes (about EUR 320 million per year).
- ESI Funds (TO4) managed by IDAE in the SGOP (about EUR 210 million per year).
- Programmes managed by the EIB group, such as the European Fund for Strategic Investments (EFSI) and Private Finance for Energy Efficiency (PF4EE).

- Other European public initiatives in the field of energy efficiency related to the Horizon2020 program, LIFE program, ELENA, etc.

Market gap

On the basis of supply and demand analysis, a gap of about EUR 10.4 billion per year was estimated.

As detailed in the report, this amount was calculated using a theoretical model and it is reasonable to expect that the amount of final demand for the next five years will be lower.

Some of the reasons of this gap are related to market failures and externalities related to environmental costs. Other issues that have been identified are:

- Asymmetric information between providers of energy efficiency services, final clients and financing entities.
- Lack of communication and awareness about benefits generated by energy efficiency initiatives.
- Small average size of enterprises operating in the energy efficiency sector, which are generally heavily indebted and under-capitalized, and therefore, have difficulties to access additional financing.
- Debt constraints of public administrations, which prevent access to refundable financing of energy efficiency initiatives.
- Complexity in the organization of public private partnerships and the lack of specific resources to finance technical assistance.
- Some macroeconomic phenomena (e.g. fluctuation in oil price) leading to the postponement of investments in renewable energies.

Lessons learnt

From the analysis of FIs implemented in previous programming periods and based on field interviews with operators and sector specialists, key issues to consider in shaping the investment strategy were identified.

1. The building sector has the largest potential need (86% of total potential demand or about EUR 12 billion per year in the 2019 – 2023 period) and in particular, the residential sector (about EUR 9 billion per year in the 2019 – 2023 period or 65% of total potential demand).
2. There is a widespread need for technical assistance (TA), both at the level of final beneficiaries/recipients and at the level of financial intermediaries. TA can play a crucial

role to support the structuring of initiatives (e.g. project and contract design, public-private collaboration, etc.).

3. A generalised need to communicate funding opportunities for the low carbon economy more effectively.
4. There is a need to proactively support and promote the financing of new projects and new techniques of public-private partnerships, considering difficulties faced mainly by public entities in accessing financing.
5. Financial products combined with grants could provide final recipients with a greater incentive to undertake energy efficiency initiatives.

Proposed investment strategy

Based on the findings of the first phase of the report, a proposed investment strategy was drafted, taking into consideration the target sectors, financial products and recommended potential instruments.

Three **sectors** where FIs could be implemented were identified, as follows:

- 1) **Residential sector**, with about EUR 9 billion per year (2019-2023) of potential demand, generated by several small initiatives, often non-financially viable. To overcome these issues some measures could be implemented:
 - a. to increase the average size of the investment ticket, homeowners associations (HoA) could be financed instead of single owners. At this time however the credit system experiences difficulties in financing HoA, mainly because of risk related issues;
 - b. to improve financial viability of EE initiatives, a combination of FI and grant resources could be promoted, supporting also the structuring of EE initiatives (e.g. energy audit, BP, etc.).

It should be noticed that National OP's budget for EE in the residential sector is already almost entirely allocated; therefore, the MA could investigate the feasibility of re-allocating remaining available funds to support the residential sector.

- 2) **Public sector** has an estimated potential demand of about EUR 1.5 billion per year (2019-2023).

Because public entities are facing severe constraints in accessing credit, due to both national regulations and to their high level of indebtedness, financing mechanisms different

from direct lending to public entities may need to be implemented (e.g. EPC performed by ESCOs).

EPC initiatives however are not well developed yet, therefore there is need to further support them, both with technical support (e.g. energy audit, project structuring, business planning, etc.) and, where appropriate and possible, combining FI and capital grant resources.

In addition, it is understood that the National OP budget for EE in the public sector is already almost entirely allocated, at this point in time, it was therefore not considered opportune to set up a dedicated FI.

- 3) **Corporate sector** has an estimated demand of about EUR 3.5 billion per year (2019-2023), in particular in non-residential buildings (e.g. offices, hotels, etc.) and partially in the industrial sector (including ESCOs).

Investments are expected to mainly be a small size, while in few cases large initiatives could be found (e.g. large EPC operations).

FIs should therefore have a dual focus:

- a. on product standardization (in particular for small tickets) to reduce FI costs, to promote leverage effect and to streamline the investment process;
- b. on tailor made EPC operations performed by large caps and/or by ESCOs.

With respect to resources availability, the National OP's budget for EE in the corporate sector is largely still available (about EUR 746 million).

In order to define **financial products** (e.g. guarantee, loans, and equity) that could be used by FIs, several aspects of the market were considered, as reported in following points:

- 1) a key reason why EE initiatives are under-financed is the excessive risk profile of borrowers (in particular SMEs, ESCOs and HoA), therefore products reducing their risk profile can be particularly useful;
- 2) because of the large size of the market gap, instruments allowing for an relevant leverage effect should be preferred, as they can have a greater impact in closing the gap;
- 3) because operations are expected to be small in size, financial products that are easily standardized and replicable on a vast scale (e.g. through traditional banking channels) should be preferred, as they can minimize the cost for financial intermediaries (and overall for the FI).

Two financial products were considered to be the most effective in tackling the aforementioned issues:

- Guarantees, that can mitigate borrowers' risk, have a relevant leverage effect and at the same time offer a relatively easy to set up and to exit financial solution;
- Equity, could offer an alternative and complementary solution to less standardized investments (e.g. EPC, etc.) supporting operators in the development of best practices and wider development of the EPC market.

To assess options for the **set up for the FI**, available instruments were compared, considering also innovations foreseen in the Omnibus Regulation (that should enter into force in 2018) and in particular the possibility of combining EFSI and for ESI Funds.

The two set up solutions considered the most effective were:

- a **guarantee instrument** combining ESI Funds and EFSI resources; and
- a tailor made **equity instrument** co-investing in SPVs (Special Purpose Vehicles) implementing Energy Performance Contracts (EPC) initiatives and other projects requiring equity investment.

Proposed Financial Instruments

Three financial instruments are proposed:

- 1) Guarantee FI, dedicated to EE/RE initiatives in the residential housing sector;
- 2) Guarantee FI, dedicated to EE/RE initiatives in the corporate sector;
- 3) Equity FI, dedicate to EPC schemes and other EE/RE projects requiring equity investment.

All three instruments are expected to invest both in EE and RE initiatives.

ESCOs are expected to be supported by FIs both directly as final recipients (FI dedicated to EE/RE initiatives in the corporate sector) and indirectly as service providers (FI dedicated to EE/RE initiatives in the residential sector).

Potentially all three instruments could combine ESI Funds and EFSI resources, to increase the overall investment volume and to better mitigate risks connected with final recipients.

For both proposed guarantee FIs, it is recommended to devote some ESI Funds, managed at the FI level, for technical support and to subsidize interest rates.

It should be considered that some relevant initiatives targeting EE are expected to be implemented in Spain in the coming years (e.g.

2018-2021 National Housing Plan), therefore before launching FIs, it is recommended to further check no other instruments targeting the same sectors have been subsequently put in place and if so, that they are complementary.

To raise the interest of financial intermediaries and final recipients, it is crucial that the administrative complexity in the management of FI and its potential combination with grant is minimised.

In the following table, a brief description of proposed instruments is reported.

Because proposed FI have relevant innovative characteristics, both guarantee instruments could start operating with the recommended minimum amount (EUR50m each), that could then be increased once the instruments are operational.

Financial Instrument	Guarantee FI dedicated to EE initiatives in the residential housing sector	Guarantee FI dedicated to EE initiatives in the corporate sector	Equity instrument operating both in EE and RE in the public and private sector
Brief description	<p>Guarantee structure:</p> <ul style="list-style-type: none"> • ESI Funds guarantee (EUR 100m) to cover 20% of the loan portfolio • EFSI and third parties guarantee (EUR250 m) to cover 50% of the loan portfolio <p>It is recommended to devote a budget of ESI Funds for interest rate subsidies and/or technical assistance/support. This Budget could be equal to 5% of the loan portfolio (EUR 25m).</p> <p>Based on the available draft version of the Omnibus regulation, an ESI Funds contribution of up to 50% of total support it is recommended in less developed Regions (ESI Funds level will need to be reviewed once the Omnibus is adopted).</p>	<p>Guarantee structure:</p> <ul style="list-style-type: none"> • ESI Funds guarantee (EUR 75m) to cover 20% of the loan portfolio • EFSI and third parties guarantee (EUR188 m) to cover 50% of the loan portfolio <p>It is recommended to devote a budget of ESI Funds for interest rate subsidies and/or technical assistance/support. This Budget could be equal to 5% of the loan portfolio (EUR 19m)</p> <p>Based on the available draft version of the Omnibus regulation, an ESI Funds contribution of up to 50% of total support it is recommended in less developed Regions (ESI Funds level will need to be reviewed once the Omnibus is adopted).</p>	<p>This Financial Instrument can invest with equity in Special Purpose Vehicles (SPV) created to implement Energy Performance Contracts (EPC) and in other projects and vehicles/companies implementing energy efficiency related initiatives.</p>
EISF contribution	Recommended OP ERDF contribution: 100 m	Recommended OP ERDF contribution: 75 m	Recommended OP ERDF contribution: 20 m
Grant resources at the level of the FI	Recommended OP ERDF contribution: 25 m	Recommended OP ERDF contribution: 19 m	
Total support	Total loan portfolio is expected to reach EUR 500m	Total loan portfolio is expected to reach EUR 375m	Total loan portfolio is expected to reach EUR 182m

FI and grant combination

As reported in previous table, it is recommended that grant resources at the level of FI for technical support and interest rate subsidies.

The Managing Authority can moreover provide grant in the form of Technical assistance, to increase market awareness and to promote capacity-building activities.

Even with the support of FIs, a number of EE initiatives face difficulties in being financially self-sustainable. In several cases, there is therefore a need for products combining capital grants and FIs.

A combination of FI and capital grants can highly improve the attractiveness of the financial product for final recipients/beneficiaries. This could however lead to a high level of complexity, in particular if grants were backed by ESIF resources.

When possible and opportune, a combination of FI and capital grants should be promoted, in particular in the case of non-ESIF grants (such as the National Plan for Housing) and therefore a close cooperation between the MA and financial intermediaries should be implemented.

Implementation and governance structure

As reported in previous sections, a combination of ESIF and EFSI resources at the level of the financial instrument is recommended.

On this basis, the most coherent implementation option is reported in Art.38.1.c of the CPR (introduced by the Omnibus Regulation): the provision of a contribution by the Managing Authority to a financial instrument allowing combining such contribution with EIB financial products under EFSI.

It should however being noticed that the Omnibus Regulation is still in draft version and this provision could be different in the final version that is expected to enter into force in 2018.

With respect to the governance structure, the use of a Fund of Fund (FoF) managed by the EIB group was found to be the most appropriate because of: different sectors covered, different financial products used and combination of ESIF and EIB financial products under EFSI.

Regional contributions to the FI

The TO 4 of the Sustainable Development OP 2014/2020, managed by IDAE has a regional allocation strategy. The majority of available resources (58%) is concentrated in less developed and transition regions (6 Comunidad Autonomas).

This allocation strategy (if strictly applied) could have negative impact in the investment strategy of FIs (e.g. investment in sub optimal projects, absorption difficulties, etc.) and it could also increase the complexity for financial intermediaries to manage OP resources, with a risk of increasing their procedural costs.

A further option could consist in combining FI resources and regional OP resources (grants only) at the level of final recipients. This solution could improve both EE initiatives' financial viability and coordination between grant and FI resources (thus avoiding FI crowding out), even those there are complexities in combining grant and FI resources, in particular with respect to administrative and procedural issues.

